

# USA Debit EMV™ Test Plan

Version 4.00

March 2019

#### **Disclaimer**

Information provided in this document describes capabilities available at the time of developing and delivering this document and the associated test cards and information available from industry sources. This document is intended to be used as a guideline only and B2 Payment Solutions, Inc. and/or its affiliates accept no liability for any errors or omissions in this document and/or for any results of client's reliance thereon.

#### **Copyright**

© 2017 by B2 Payment Solutions, Inc. All rights reserved. All information and data contained herein and within the associated test cards is confidential and proprietary to B2 Payment Solutions. Such information shall not be disclosed, duplicated, reverse-engineered or used in part or in whole, for any purpose without prior written consent from B2 Payment Solutions, Inc. other than specific internal, non-commercial, non-assignable use in conjunction with the UL USA Debit EMV<sup>TM</sup> Test Card Set (16 cards) only.

#### **Attributions**

EMV<sup>™</sup> is a trademark owned by EMVCo LLC.

All trademarks, services marks, trade names and symbols seen below and referenced in this document are registered trademarks and property of their respective owner(s): Discover Financial Services, Interac Association, Debit Network Alliance LLC, Mastercard International Incorporated and Visa Inc.



#### **B2 Contact Information**

251 Consumers Road, Suite 1200, Toronto, ON M2J 4R3 555 Northpoint Center, Suite 400, Alpharetta, GA 30022 Tel: 416.730.9827 www.b2ps.com

# **Revision History**

Version	Date	Revisions
1.00	December 09, 2017	Initial document release
1.10	December 14, 2017	<ul> <li>Recommended transaction \$value updated for cards 13, 15, 16</li> </ul>
1.20	May 30, 2018	<ul> <li>Renumbered Test Cases:</li> <li>CD.MMCL.C03-T01 corrected to CD.MCCL.C03-T01</li> <li>CD.MMCL.C03-T02 became CD.MCCL.C03-T03</li> <li>Updated Test Cases:</li> <li>CD.MCCL.C03-T01</li> <li>CD.MCCL.C08-T01</li> <li>CD.MCCL.C11-T01</li> <li>CD.MCCL.C11-T03</li> <li>New Test Cases:</li> <li>CD.MCCL.C03-T02</li> </ul>
1.30	June 1, 2018	<ul> <li>Removed Test Cases:</li> <li>CD.MCCL.C08-T03</li> <li>CD.MCCL.C12-T03</li> <li>CD.MCCL.C12-T04</li> <li>Renumbered Test cases:</li> <li>CD.MCCL.C08-T04 became CD.MCCL.C08-T03</li> <li>Updated Test Cases:</li> <li>CD.MCCL.C08-T02</li> <li>CD.MCCL.C08-T03</li> <li>CD.MCCL.C09-T01</li> <li>Card version numbers (profile table, Tag data) updated to match physical card version - all are currently v4.0.</li> <li>Tags 82, 9F07, 9F69: interpretation of bit values added</li> </ul>
2.00	August 20, 2018	TC03 updated to v5.0 - Tag 57 modified
3.00	September 27, 2018	<ul> <li>Tag 82 (AIP) updated on non-Visa cards</li> <li>Discover cards (TC12, TC13) - Expiry date changed to 23/12</li> <li>DNA Card (TC14) - Expiry date changed to 25/12</li> </ul>
3.10	December 13, 2018	TC03 documentation updated to reflect Dual-Funding
4.00	March 11, 2019	TC03 updated to v6.0 - Discretionary data modified



# Table of Contents

Chapter	1 - Ove	erview		. 7
1.1	B2 USA	Debit EMV	Test Plan - Purpose	7
1.2	Target /	Audience		7
1.3	System	Requireme	nts	7
Chapter	2 - Imp	lementing	g U.S. Debit	. 8
2.1	U.S. Co	mmon Debi	t Scenarios	8
2.2	Applica	tion Selection	on for U.S. Debit with Cardholder Verification Handling	10
2.3	PIN Pre	ferring Merc	chants:	11
2.4	Credit/E	Debit Promp	ting Merchants:	12
2.5	Final Se	election Pro	cessing	13
2.6	U.S. De	bit Processi	ng Flowchart PIN Preferring Merchants	15
2.7			ng Flowchart - Credit/Debit Prompting Merchants	
			t EMV Test Plan	
•				
3.1				
3.2			le Test Cases	
3.3	USA De 3.3.1		st Cases D and Title	
	3.3.1			
	3.3.3	21		
	3.3.4	•	tes	
	3.3.5	Steps		19
	3.3.6	Pass Criteria	3	19
	3.3.7			-
	3.3.8	•	st of AIDs used in UL USA Debit EMV Test Card Set	
	3.3.9		ng, Merchant Controlled Candidate List – Test Cases PP.MCCL.C01-T01	
		3.3.9.1 3.3.9.2	PP.MCCL.C01-T01	
		3.3.9.3	PP.MCCL.C01-T03	
		3.3.9.4	PP.MCCL.C01-T04	-
		3.3.9.5 3.3.9.6	PP.MCCL.C02-T01 PP.MCCL.C02-T02	-
		3.3.9.0	PP.MCCL.C03-T01	
		3.3.9.8	PP.MCCL.C03-T02	
		3.3.9.9	PP.MCCL.C03-T03	
		3.3.9.10	PP.MCCL.C04-T01	
		3.3.9.11 3.3.9.12	PP.MCCL.C05-T01 PP.MCCL.C05-T02	
		3.3.9.13	PP.MCCL.C05-T03	
		3.3.9.14	PP.MCCL.C05-T04	35
		3.3.9.15	PP.MCCL.C06-T01	
		3.3.9.16 3.3.9.17	PP.MCCL.C06-T02 PP.MCCL.C07-T01	
		3.3.9.17 3.3.9.18	PP.MCCL.C07-T01 PP.MCCL.C07-T02	
		3.3.9.19	PP.MCCL.C07-T03	
		3.3.9.20	PP.MCCL.C08-T01	41
		3.3.9.21	PP.MCCL.C08-T02	
		3.3.9.22 3.3.9.23	PP.MCCL.C08-T03 PP.MCCL.C08-T04	
		3.3.9.23	PP.MCCL.C08-T04 PP.MCCL.C09-T01	
		3.3.9.25	PP.MCCL.C09-T02	-



	3.3.9.26	PP.MCCL.C09-T03	
	3.3.9.27	PP.MCCL.C09-T04	. 48
	3.3.9.28	PP.MCCL.C10-T01	.49
	3.3.9.29	PP.MCCL.C10-T02	
	3.3.9.30	PP.MCCL.C11-T01	
	3.3.9.31	PP.MCCL.C11-T02	
	3.3.9.32	PP.MCCL.C11-T03	
		PP.MCCL.C11-T04	
	3.3.9.33		
	3.3.9.34	PP.MCCL.C12-T01	
	3.3.9.35	PP.MCCL.C12-T02	
	3.3.9.36	PP.MCCL.C12-T03	.57
	3.3.9.37	PP.MCCL.C12-T04	
	3.3.9.38	PP.MCCL.C13-T01	. 59
	3.3.9.39	PP.MCCL.C13-T02	.60
	3.3.9.40	PP.MCCL.C14-T01	.61
	3.3.9.41	PP.MCCL.C15-T01	
	3.3.9.42	PP.MCCL.C16-T01	
3.3.10	PIN Preferri	ng, Standard EMV Application Selection – Test Cases	
	3.3.10.1	PP.SEAS.C01-T01	.64
	3.3.10.2	PP.SEAS.C01-T02	
	3.3.10.3	PP.SEAS.C01-T03	
	3.3.10.3	PP.SEAS.C01-T04	
	3.3.10.5	PP.SEAS.C01-T05	
	3.3.10.6	PP.SEAS.C02-T01	
	3.3.10.7	PP.SEAS.C02-T02	
	3.3.10.8	PP.SEAS.C03-T01	.71
	3.3.10.9	PP.SEAS.C03-T02	.72
	3.3.10.10	PP.SEAS.C03-T03	.73
	3.3.10.11	PP.SEAS.C03-T04	
	3.3.10.12	PP.SEAS.C04-T01	
	3.3.10.13	PP.SEAS.C05-T01	
		PP.SEAS.C05-T01	
	3.3.10.14		
	3.3.10.15	PP.SEAS.C05-T03	
	3.3.10.16	PP.SEAS.C05-T04	
	3.3.10.17	PP.SEAS.C05-T05	
	3.3.10.18	PP.SEAS.C06-T01	. 81
	3.3.10.19	PP.SEAS.C06-T02	. 82
	3.3.10.20	PP.SEAS.C07-T01	
	3.3.10.21	PP.SEAS.C07-T02	
	3.3.10.22	PP.SEAS.C07-T03	
	3.3.10.23	PP.SEAS.C08-T01	
	3.3.10.23		
		PP.SEAS.C08-T02	
	3.3.10.25	PP.SEAS.C08-T03	
	3.3.10.26	PP.SEAS.C08-T04	
	3.3.10.27	PP.SEAS.C09-T01	
	3.3.10.28	PP.SEAS.C09-T02	.91
	3.3.10.29	PP.SEAS.C09-T03	
	3.3.10.30	PP.SEAS.C09-T04	.93
	3.3.10.31	PP.SEAS.C09-T05	
	3.3.10.32	PP.SEAS.C10-T01	
	3.3.10.33	PP.SEAS.C10-T02	
	3.3.10.34	PP.SEAS.C11-T01	
	3.3.10.35	PP.SEAS.C11-T02	
	3.3.10.36	PP.SEAS.C11-T03	
	3.3.10.37	PP.SEAS.C11-T041	
	3.3.10.38	PP.SEAS.C11-T051	
	3.3.10.39	PP.SEAS.C11-T06	02
	3.3.10.40	PP.SEAS.C11-T071	03
	3.3.10.41	PP.SEAS.C12-T01	
	3.3.10.42	PP.SEAS.C12-T02	
	3.3.10.43	PP.SEAS.C12-T031	
	3.3.10.43	PP.SEAS.C12-T04	
	3.3.10.44	PP.SEAS.C12-104	
	3.3.10.46	PP.SEAS.C12-T06	
	3.3.10.47	PP.SEAS.C13-T011	10



	3.3.10.48	PP.SEAS.C13-T02
	3.3.10.49 3.3.10.50	PP.SEAS.C14-T01
	3.3.10.50	PP.SEAS.C15-T01
0.0.44		
3.3.11		it Prompting, Merchant Controlled Candidate List – Test Cases
	3.3.11.1	CD.MCCL.C01-T01
	3.3.11.2	CD.MCCL.C01-T02
	3.3.11.3	CD.MCCL.C01-T03
	3.3.11.4 3.3.11.5	CD.MCCL.C01-T04
	3.3.11.6	CD.MCCL.C02-T01
	3.3.11.7	CD.MCCL.C03-T01
	3.3.11.8	CD.MCCL.C03-T02
	3.3.11.9	CD.MCCL.C03-T03
	3.3.11.10	CD.MCCL.C04-T01
	3.3.11.11	CD.MCCL.C05-T01
	3.3.11.12	CD.MCCL.C05-T02126
	3.3.11.13	CD.MCCL.C05-T03127
	3.3.11.14	CD.MCCL.C05-T04
	3.3.11.15	CD.MCCL.C06-T01
	3.3.11.16	CD.MCCL.C06-T02
	3.3.11.17	CD.MCCL.C07-T01
	3.3.11.18 3.3.11.19	CD.MCCL.C07-T02
	3.3.11.19	CD.MCCL.C07-103
	3.3.11.20	CD.MCCL.C08-T01
	3.3.11.22	CD.MCCL.C08-T02
	3.3.11.23	CD.MCCL.C09-T01
	3.3.11.24	CD.MCCL.C09-T02
	3.3.11.25	CD.MCCL.C10-T01
	3.3.11.26	CD.MCCL.C10-T02140
	3.3.11.27	CD.MCCL.C11-T01141
	3.3.11.28	CD.MCCL.C11-T02142
	3.3.11.29	CD.MCCL.C11-T03143
	3.3.11.30	CD.MCCL.C11-T04
	3.3.11.31	CD.MCCL.C12-T01
	3.3.11.32	CD.MCCL.C12-T02
	3.3.11.33	CD.MCCL.C13-T01
	3.3.11.34 3.3.11.35	CD.MCCL.C13-102
	3.3.11.36	CD.MCCL.C15-T01
	3.3.11.37	CD.MCCL.C16-T01
3.3.12		it Selection, Standard EMV Application Selection – Test Cases
3.3.TZ		
	3.3.12.1	CD.SEAS.C01-T01
	3.3.12.2	CD.SEAS.C01-T02
	3.3.12.3 3.3.12.4	CD.SEAS.C01-103
	3.3.12.4	CD.SEAS.C01-104
	3.3.12.6	CD.SEAS.C02-T02
	3.3.12.7	CD.SEAS.C03-T01
	3.3.12.8	CD.SEAS.C03-T02
	3.3.12.9	CD.SEAS.C03-T03
	3.3.12.10	CD.SEAS.C04-T01
	3.3.12.11	CD.SEAS.C05-T01
	3.3.12.12	CD.SEAS.C05-T02163
	3.3.12.13	CD.SEAS.C05-T03
	3.3.12.14	CD.SEAS.C05-T04
	3.3.12.15	CD.SEAS.C06-T01
	3.3.12.16	CD.SEAS.C06-T02
	3.3.12.17	CD.SEAS.C07-T01
	3.3.12.18 3.3.12.19	CD.SEAS.C07-T02
	3.3.12.19	CD.SEAS.C07-103
	3.3.12.20	CD.SEAS.C08-101
	3.3.12.22	CD.SEAS.C08-T03
	2.2.1.L.LL	



		3.3.12.23 CD.SEAS.C08-T04	
		3.3.12.24 CD.SEAS.C09-T01	
		3.3.12.25 CD.SEAS.C09-T02 3.3.12.26 CD.SEAS.C09-T03	
		3.3.12.27 CD.SEAS.C10-T01	
		3.3.12.28 CD.SEAS.C10-T02	-
		3.3.12.29 CD.SEAS.C11-T01	
		3.3.12.30 CD.SEAS.C11-T02	
		3.3.12.31 CD.SEAS.C11-T03	
		3.3.12.32 CD.SEAS.C11-T04 3.3.12.33 CD.SEAS.C11-T05	
		3.3.12.34 CD.SEAS.C11-T06	
		3.3.12.35 CD.SEAS.C11-T07	.186
		3.3.12.36 CD.SEAS.C12-T01	
		3.3.12.37 CD.SEAS.C12-T02	
		3.3.12.38 CD.SEAS.C12-T03 3.3.12.39 CD.SEAS.C12-T04	
		3.3.12.40 CD.SEAS.C12-T05	
		3.3.12.41 CD.SEAS.C13-T01	
		3.3.12.42 CD.SEAS.C13-T02	
		3.3.12.43 CD.SEAS.C14-T01	
		3.3.12.44 CD.SEAS.C15-T01 3.3.12.45 CD.SEAS.C16-T01	
Chapter	4 - UL	USA Debit EMV Test Card Set Profiles	197
4.1	Test Ca	ard 01 - Visa, DI, 2-AID (Visa Debit+US Debit), English, USA, USD	.201
	4.1.1	Contact: CVM List - Visa Debit, AID A000000031010	
	4.1.2	Contact: Application Tag data, AID A000000031010	
	4.1.3	Contact: CVM List - U.S. Debit, AID A000000980840	
	4.1.4	Contact: Application Tag data, AID A000000980840	
	4.1.5	Contactless: Application Tag data, AID A000000031010	
	4.1.6	Contactless: Application Tag data, AID A000000980840	
4.2		ard 02 - Visa, CO, 1-AID (US Debit), English, USA, USD	
	4.2.1	Contact: CVM List - US Debit, AID - A000000980840	
	4.2.2	Contact: Application Tag data, AID A000000980840	. 208
4.3	Test Ca	ard 03 - Visa, CO, 3-AID (Credit+Debit+US Common, 2-Funding), English, USA	,
		USD	
	4.3.1	Contact: CVM List - Visa Credit, AID - A00000003101001	
	4.3.2	Contact: Application Tag data, AID A00000003101001	211
	4.3.3	Contact: CVM List - Visa Debit, AID A00000003101002	213
	4.3.4	Contact: Application Tag data, AID A00000003101002	
	4.3.4 4.3.5		. 213
		Contact: Application Tag data, AID A00000003101002 Contact: CVM List - U.S. Common Debit, AID A0000000980840	213 215
4 4	4.3.5 4.3.6	Contact: Application Tag data, AID A00000003101002 Contact: CVM List - U.S. Common Debit, AID A0000000980840 Contact: Application Tag data, AID A0000000980840	213 215 215
4.4	4.3.5 4.3.6 <b>Test Ca</b>	Contact: Application Tag data, AID A00000003101002 Contact: CVM List - U.S. Common Debit, AID A0000000980840 Contact: Application Tag data, AID A000000980840 ard 04 - Visa, CO, 1-AID (Interlink), English, USA, USD	213 215 215 215
4.4	4.3.5 4.3.6 <b>Test Ca</b> 4.4.1	Contact: Application Tag data, AID A00000003101002 Contact: CVM List - U.S. Common Debit, AID A0000000980840 Contact: Application Tag data, AID A0000000980840 ard 04 - Visa, CO, 1-AID (Interlink), English, USA, USD Contact: CVM List - Visa Interlink, AID A000000033010	213 215 215 <b>217</b> 217
	4.3.5 4.3.6 <b>Test Ca</b> 4.4.1 4.4.2	Contact: Application Tag data, AID A00000003101002 Contact: CVM List - U.S. Common Debit, AID A0000000980840 Contact: Application Tag data, AID A000000980840 ard 04 - Visa, CO, 1-AID (Interlink), English, USA, USD Contact: CVM List - Visa Interlink, AID A000000033010 Contact: Application Tag data, AID A000000033010	213 215 215 217 217 217
4.4 4.5	4.3.5 4.3.6 <b>Test Ca</b> 4.4.1 4.4.2	Contact: Application Tag data, AID A00000003101002 Contact: CVM List - U.S. Common Debit, AID A0000000980840 Contact: Application Tag data, AID A0000000980840 ard 04 - Visa, CO, 1-AID (Interlink), English, USA, USD Contact: CVM List - Visa Interlink, AID A000000033010 Contact: Application Tag data, AID A000000033010 Contact: Application Tag data, AID A000000033010	213 215 215 217 217 217 217
	4.3.5 4.3.6 <b>Test Ca</b> 4.4.1 4.4.2 <b>Test Ca</b>	Contact: Application Tag data, AID A00000003101002 Contact: CVM List - U.S. Common Debit, AID A0000000980840 Contact: Application Tag data, AID A0000000980840 ard 04 - Visa, CO, 1-AID (Interlink), English, USA, USD Contact: CVM List - Visa Interlink, AID A000000033010 Contact: Application Tag data, AID A000000033010 Contact: Application Tag data, AID A000000033010 ard 05 - Mastercard, DI, 2-AID (Mastercard Debit+US Debit), English, USA, USD	213 215 215 217 217 217 217 D 220
	4.3.5 4.3.6 <b>Test Ca</b> 4.4.1 4.4.2 <b>Test Ca</b> 4.5.1	Contact: Application Tag data, AID A00000003101002 Contact: CVM List - U.S. Common Debit, AID A0000000980840 Contact: Application Tag data, AID A000000980840 ard 04 - Visa, CO, 1-AID (Interlink), English, USA, USD Contact: CVM List - Visa Interlink, AID A0000000033010 Contact: Application Tag data, AID A000000033010 Contact: Application Tag data, AID A000000033010 ard 05 - Mastercard, DI, 2-AID (Mastercard Debit+US Debit), English, USA, USI Contact: CVM List - Mastercard debit, AID A000000041010	213 215 215 217 217 217 D 220 220
	4.3.5 4.3.6 <b>Test Ca</b> 4.4.1 4.4.2 <b>Test Ca</b> 4.5.1 4.5.2	Contact: Application Tag data, AID A00000003101002 Contact: CVM List - U.S. Common Debit, AID A0000000980840 Contact: Application Tag data, AID A0000000980840 ard 04 - Visa, CO, 1-AID (Interlink), English, USA, USD Contact: CVM List - Visa Interlink, AID A000000033010 Contact: Application Tag data, AID A000000033010 Contact: Application Tag data, AID A000000033010 Contact: CVM List - Mastercard Debit+US Debit), English, USA, USD Contact: CVM List - Mastercard debit, AID A000000041010 Contact: Application Tag data, AID A000000041010	213 215 215 217 217 217 217 D 220 220 220
	4.3.5 4.3.6 <b>Test Ca</b> 4.4.1 4.4.2 <b>Test Ca</b> 4.5.1 4.5.2 4.5.3	Contact: Application Tag data, AID A00000003101002 Contact: CVM List - U.S. Common Debit, AID A0000000980840 Contact: Application Tag data, AID A0000000980840 ard 04 - Visa, CO, 1-AID (Interlink), English, USA, USD Contact: CVM List - Visa Interlink, AID A000000033010 Contact: Application Tag data, AID A000000033010 ard 05 - Mastercard, DI, 2-AID (Mastercard Debit+US Debit), English, USA, USI Contact: CVM List - Mastercard debit, AID A0000000041010 Contact: Application Tag data, AID A0000000041010 Contact: CVM List - U.S. Maestro, AID A000000042203	213 215 215 217 217 217 D 220 220 223
	4.3.5 4.3.6 <b>Test Ca</b> 4.4.1 4.4.2 <b>Test Ca</b> 4.5.1 4.5.2 4.5.3 4.5.4	Contact: Application Tag data, AID A00000003101002 Contact: CVM List - U.S. Common Debit, AID A0000000980840 Contact: Application Tag data, AID A0000000980840 ard 04 - Visa, CO, 1-AID (Interlink), English, USA, USD Contact: CVM List - Visa Interlink, AID A000000033010. Contact: Application Tag data, AID A000000033010. Contact: Application Tag data, AID A000000033010. Contact: CVM List - Mastercard Debit+US Debit), English, USA, USI Contact: CVM List - Mastercard debit, AID A000000041010. Contact: Application Tag data, AID A000000041010. Contact: CVM List - U.S. Maestro, AID A000000042203. Contact: Application Tag data, AID A000000042203.	213 215 215 217 217 217 D 220 220 223 223
	4.3.5 4.3.6 <b>Test Ca</b> 4.4.1 4.4.2 <b>Test Ca</b> 4.5.1 4.5.2 4.5.3 4.5.4 4.5.5	Contact: Application Tag data, AID A00000003101002 Contact: CVM List - U.S. Common Debit, AID A0000000980840 Contact: Application Tag data, AID A000000980840 ard 04 - Visa, CO, 1-AID (Interlink), English, USA, USD Contact: CVM List - Visa Interlink, AID A000000033010. Contact: Application Tag data, AID A000000033010. Contact: Application Tag data, AID A000000033010. Contact: CVM List - Mastercard debit, AID A000000041010. Contact: CVM List - Mastercard debit, AID A000000041010. Contact: CVM List - U.S. Maestro, AID A000000042203. Contact: Application Tag data, AID A000000042203. Contact: Application Tag data, AID A000000042203. Contact: CVM List - Mastercard debit, AID A000000041010.	213 215 215 217 217 217 217 217 220 220 220 223 223 223
	4.3.5 4.3.6 <b>Test Ca</b> 4.4.1 4.4.2 <b>Test Ca</b> 4.5.1 4.5.2 4.5.3 4.5.4 4.5.5 4.5.6	Contact: Application Tag data, AID A00000003101002 Contact: CVM List - U.S. Common Debit, AID A0000000980840 Contact: Application Tag data, AID A0000000980840 ard 04 - Visa, CO, 1-AID (Interlink), English, USA, USD Contact: CVM List - Visa Interlink, AID A000000033010. Contact: Application Tag data, AID A000000033010. Contact: Application Tag data, AID A000000033010. Contact: CVM List - Mastercard Debit+US Debit), English, USA, USI Contact: CVM List - Mastercard debit, AID A000000041010. Contact: Application Tag data, AID A000000041010. Contact: CVM List - U.S. Maestro, AID A000000042203. Contact: Application Tag data, AID A000000042203. Contact: Application Tag data, AID A000000041010. Contact: Application Tag data, AID A000000042203. Contact: SCVM List - Mastercard debit, AID A000000041010. Contact: Application Tag data, AID A000000041203. Contactless: CVM List - Mastercard debit, AID A000000041010.	213 215 215 217 217 217 217 220 220 220 220 223 223 226 227
	4.3.5 4.3.6 <b>Test Ca</b> 4.4.1 4.4.2 <b>Test Ca</b> 4.5.1 4.5.2 4.5.3 4.5.4 4.5.5	Contact: Application Tag data, AID A00000003101002 Contact: CVM List - U.S. Common Debit, AID A0000000980840 Contact: Application Tag data, AID A000000980840 ard 04 - Visa, CO, 1-AID (Interlink), English, USA, USD Contact: CVM List - Visa Interlink, AID A000000033010. Contact: Application Tag data, AID A000000033010. Contact: Application Tag data, AID A000000033010. Contact: CVM List - Mastercard debit, AID A000000041010. Contact: CVM List - Mastercard debit, AID A000000041010. Contact: CVM List - U.S. Maestro, AID A000000042203. Contact: Application Tag data, AID A000000042203. Contact: Application Tag data, AID A000000042203. Contact: CVM List - Mastercard debit, AID A000000041010.	213 215 215 217 217 217 217 D 220 220 223 223 223 226 227 229



4.6	Test Ca	ard 06 - Mastercard, CO, 1-AID (Maestro 2-Funding), English, NLD, EUR	231
	4.6.1	Contact: CVM List - Maestro Debit, AID A000000043060D0561111	231
	4.6.2	Contact: Application Tag data, AID A000000043060D0561111	231
	4.6.3	Contact: CVM List - Maestro Debit, AID A000000043060D0562222	234
	4.6.4	Contact: Application Tag data, AID A000000043060D0562222	235
4.7	Test Ca	ard 07 - Mastercard Int'I, CO, 2-AID (Credit+Debit), English, GBR, GBP	238
	4.7.1	Contact: CVM List - Mastercard credit, AID A000000041010	238
	4.7.2	Contact: Application Tag data, AID A000000041010	238
	4.7.3	Contact: CVM List - Maestro debit, AID A000000043060	241
	4.7.4	Contact: Application Tag data, AID A000000043060	242
4.8	Test Ca	ard 08 - U.S. Maestro, CO, 1-AID (2-Funding), English, USA, USD	245
	4.8.1	Contact: CVM List - Mastercard U.S. Checking, AID A000000042203D0561111	245
	4.8.2	Contact: Application Tag data, AID A000000042203D0561111	245
	4.8.3	Contact: CVM List - Mastercard U.S. Savings, AID A000000042203D0562222	249
	4.8.4	Contact: Application Tag data, AID A000000042203D0562222	249
4.9	Test Ca	ard 09 - Mastercard, CO, 3-AID (Credit+Maestrox2), English, USA, USD	252
	4.9.1	Contact: CVM List - Mastercard credit, AID A000000041010	252
	4.9.2	Contact: Application Tag data, AID A000000041010	252
	4.9.3	Contact: CVM List - Maestro debit, AID A000000043060	256
	4.9.4	Contact: Application Tag data, AID A000000043060	256
	4.9.5	Contact: CVM List - U.S. Maestro, AID A000000042203	259
	4.9.6	Contact: Application Tag data, AID A000000042203	259
4.10	Test Ca	ard 10 - Mastercard CO, Contact, 1-AID(US Maestro), English, USA, USD	263
	4.10.1	Contact: CVM List - U.S. Maestro, AID A000000043060	
	4.10.2	Contact: Application Tag data, AID A000000043060	263
4.11	Test Ca	ard 11 - Mastercard, CO, 4-AID (MC+USM/Maestro+USM), English, USA, USI	D266
	4.11.1	Contact: CVM List - Mastercard debit, AID A000000041010	266
	4.11.2	Contact: Application Tag data, AID A000000041010	266
	4.11.3	Contact: CVM List - U.S. checking, AID A00000004220301	269
	4.11.4	Contact: Application Tag data, AID A00000004220301	269
	4.11.5	Contact: CVM List - Maestro debit, AID A000000043060	273
	4.11.6	Contact: Application Tag data, AID A000000043060	273
	4.11.7	Contact: CVM List - U.S. Savings debit, AID A00000004220302	276
	4.11.8	Contact: Application Tag data, AID A00000004220302	276
4.12	Test Ca	ard 12 - Discover, DI, 2-AID (U.S. Debit, Discover), English/Spanish/French, USD	-
	4.12.1	Contact: CVM List - Discover U.S. Debit, AID A0000001524010	
	4.12.2	Contact: Application Tag data, AID A0000001524010	280
	4.12.3	Contact: CVM List - Discover Debit, AID A0000001523010	282
	4.12.4	Contact: Application Tag data, AID A0000001523010	282
	4.12.5	Contactless: CVM List - Discover U.S. Debit, AID A0000001524010	284
	4.12.6	Contactless: Application Tag data, AID A0000001524010	284
	4.12.7	Contactless: Application Tag data, AID A0000001523010	286
4.13	Test Ca	ard 13 - Discover, CO, 1-AID (U.S. Debit), English, USA, USD	289
	4.13.1	Contact: CVM List - Discover U.S. Debit, AID A0000001524010	289
	4.13.2	Contact: Application Tag data, AID A0000001524010	289
4.14	Test Ca	ard 14 - DNA, CO, 1 AID (DNA), English, USA, USD	291
	4.14.1	Contact: CVM List - DNA, AID A000006200620	
	4.14.2	Contact: Application Tag data, AID A0000006200620	201



4.15	Test Ca	ard 15 - Interac, DI, 1-AID (Interac), English, CAN, CAD	293
	4.15.1	Contact: CVM List - Interac, AID A0000002771010	
	4.15.2	Contact: Application Tag data, AID A0000002771010	
	4.15.3	Contactless: CVM List - Interac Flash, AID A0000002771010	
	4.15.4	Contactless: Application Tag data, AID A0000002771010	
4.16	Test Ca	ard 16 - Interac, CO, 1-AID (Interac), English, CAN, CAD	
	4.16.1	Contact: CVM List - Interac, AID A0000002771010	



## Chapter 1 - Overview

## 1.1 B2 USA Debit EMV Test Plan - Purpose

This test plan is designed for clients who wish to utilize the UL USA Debit EMV Test Card Set, provided by B2, to perform internal testing, training and/or User Acceptance Testing (UAT) with U.S. processors.

The test plan benefits are derived from having a defined and repeatable testing methodology. In addition, the test plan includes test cases that test many functions which are required from a practical standpoint when releasing a debit-capable EMV POS Solution into the U.S. marketplace.

## **1.2 Target Audience**

This document is intended for integrators, developers, POS vendors and merchants who wish to develop an EMV POS Solution that supports EMV contact and contactless debit functionality.

This document assumes that the user has a good understanding of POS credit and debit transaction processing in the U.S. and a general understanding of EMV and contactless smartcard concepts.

#### **1.3 System Requirements**

This is a standalone document that may be used with any POS architecture - e.g. standalone, semi-integrated or fully-integrated.



# Chapter 2 - Implementing U.S. Debit

## 2.1 U.S. Common Debit Scenarios

To meet the requirements of the Durbin amendment to the Dodd–Frank Wall Street Reform and Consumer Protection Act ("Durbin regulations"), and to provide merchants and/or acquirers the choice to route transactions from debit and prepaid card programs via unaffiliated networks; Visa, Mastercard, Discover and Debit Network Alliance (DNA) have introduced the following AIDs (commonly referred to as the "U.S. Common Debit AIDs").

U.S. Common Debit AIDs				
Brand	Scheme	AID		
Discover	U.S. Common Debit	A000001524010		
DNA	U.S. Common Debit	A000006200620		
Mastercard	U.S. Maestro	A000000042203		
Visa	Visa Common Debit	A000000980840		

Other individual debit networks (in addition to DNA) may offer their own U.S. Debit AIDs that will reside on non-Visa, non-Mastercard and non-Discover branded cards.

Visa, Mastercard and Discover branded chip cards, issued in the U.S. under debit and prepaid card programs, will support both a U.S. Common Debit AID and a Global Debit AID (either standard Visa AID, standard Mastercard AID, Maestro AID or standard Discover AID).

- If a Global Debit AID (Visa, Interlink, Mastercard, Maestro or Discover) is used to initiate the chip transaction, the transaction must be routed via the corresponding card brand network. The network used is based on the AID selected.
- If a U.S. Common Debit AID is used to initiate a chip transaction, the resulting transaction may be routed via any of the card brand networks, or any unaffiliated network that has executed the necessary access agreement with Visa, Mastercard or Discover.

For both contact and contactless transactions, EMV POS Solutions may use the standard Application Selection process described for all EMV transactions. However, the merchant may filter the resulting Candidate List to remove multiple AIDs which access the same underlying funding account, such that only one AID per unique funding account remains. EMV POS Solutions must <u>not</u> assume that if a U.S. Common Debit AID is present, that this AID can be automatically selected to the exclusion of all other AIDs on the card, as those AIDs may relate to alternative products which the cardholder may wish to use (e.g. a credit product which is issued together with a debit product).

All AIDs which relate to debit or prepaid programs can be identified in the data read during Application Selection. The presence of the following two data elements identifies the AID as relating to a U.S. Debit or prepaid program:

- Issuer Country Code (Tag 5F55) Two alpha digits with a value of 0x5553 ("US")
- Issuer Identification Number (Tag 42) Contains the Bank Identification Number (BIN) (i.e. the first 6 digits of the PAN).

There are three possible situations that must be handled:

- 1. The card has two AIDs where these data elements are present and the values of the Issuer Identification Number (IIN) are the same for both AIDs (**Scenario One below**):
  - The EMV POS Solution should assume that the AIDs with the same IIN access the same underlying funding account and therefore can remove one of those AIDs from the Candidate List.
  - For contact and contactless transactions, where there are only 2 AIDs present in



the card (1 Global AID and 1 U.S. Common AID), the EMV POS Solution may automatically select the single remaining AID in the Candidate List in accordance with Final Selection processing (section <u>2.5 Final Selection Processing</u> below). The card has more than 2 AIDs where these data elements are present and 2 of the AIDs have the same value for the Issuer Identification Number (IIN). In this scenario there will also be one or more other AID(s) present on the card that have either no IIN or a different IIN from the pair of AIDs with the same IIN (Scenario Two below):

- The EMV POS Solution should assume that the AIDs with the same IIN access the same underlying funding account and therefore can remove one of those AIDs from the Candidate List.
- For contact transactions, the EMV POS Solution should present the remaining Candidate List choices to the cardholder in accordance with Final Selection processing (section 1.4.3 below).
- For contactless transactions, the EMV POS Solution should automatically select the AID in the Candidate List that has the highest Application Priority Indicator (Tag 87) value.
- 2. When a card has two or more pairs of AIDs where these data elements are present and for each pair, both AIDs have the same IIN (Scenario Three below):
  - For each pair of AIDs with the same IIN, the EMV POS Solution should assume that the AIDs with the same IIN access the same underlying funding account and therefore can remove one of those AIDs from the Candidate List - leaving only one AID for each IIN.
  - For contact transactions, the EMV POS Solution should present the remaining Candidate List choices to the cardholder in accordance with Final Selection processing (section 1.4.3 below).
  - For contactless transactions, the EMV POS Solution should automatically select the AID in the Candidate List that has the highest Application Priority Indicator (Tag 87) value.

0.0. 00111101	T Debit Scenarios			
Scenario One	AID	Country Code Tag 5F55 d accesses sing	IIN Tag 42 Ile debit funding	Candidate List Choice for the Merchant account:
One		UL USA Debit	Test Cards 01, 0	95,12
Global Debit AID	TC 01 - A000000031010 TC 05 - A000000041010 TC 12 - A0000000153010	US	TC 01 - 476173 TC 05 - 541333 TC 12 - 651000	<ul> <li>Merchant may decide which AID to select based on their preferred routing choice:</li> <li>Global AID – may only be routed to Visa, Mastercard or Discover (any properted CVM may be</li> </ul>
U.S. Common Debit AID	TC 01 - A000000980840 TC 05 - A000000042203 TC 12 - A0000000154010	US	TC 01 - 476173 TC 05 - 541333 TC 12 - 651000	<ul> <li>supported CVM may be used)</li> <li>U.S. Common Debit AID – may be routed to any of the global networks or any of the supported debit networks (any supported CVM may be used)</li> </ul>
Two	Combo card accessing a credit account and a single funding debit account: UL USA Debit Test Cards 03, 09			-
Global Credit AID	TC 03 - A000000003101001 TC 09 - A0000000041010	n/a	n/a	Global Credit AID will remain in the Candidate List for cardholder selection.

#### U.S. Common Debit Scenarios



#### U.S. Common Debit Scenarios

	T Debit Scenarios	_		
Scenario	AID	Country Code Tag 5F55	IIN Tag 42	Candidate List Choice for the Merchant
Global Debit AID	TC 03 - A00000003101002 TC 09 - A0000000043060	US	TC 03 - 476173 TC 09 - 679999	Merchant should decide on either the Global AID or the U.S. Common Debit AID based on their preferred routing choice: Global AID – may only be routed to Vice. Mectacord
U.S. Common Debit AID	TC 03 - A0000000980840 TC 09 - A000000042203	US	TC 03 - 476173 TC 09 - 679999	<ul> <li>routed to Visa, Mastercard or Discover (any supported CVM may be used)</li> <li>U.S. Common Debit AID – may be routed to any of the global networks or any of the supported debit networks (any supported CVM may be used)</li> </ul>
Three	Card accesses two		accounts – Acco abit Test Card 1 <sup>4</sup>	ounts have different IINs: 1
Global Debit AID 1	TC 11 - A000000043060	US	5413333	Merchant should choose either the 2 Global AIDs or the 2
U.S. Common Debit AID 1	TC 11 - A000000004220301	US	541333	<ul> <li>U.S. Common Debit AIDs based on their preferred routing choice:</li> <li>Global AIDs – may only be routed to</li> </ul>
Global Debit AID 2	TC 11 - A0000000041010	US	679999	<ul> <li>Visa, Mastercard or Discover (any supported CVM may be used)</li> <li>U.S. Common Debit AIDs <ul> <li>may be routed to any of the global networks or any of the supported debit</li> </ul> </li> </ul>
U.S. Common Debit AID 2	TC 11 - A0000000004220302	US	679999	networks (any supported CVM may be used)

## 2.2 Application Selection for U.S. Debit with Cardholder Verification Handling

For traditional magstripe debit transactions, merchants can decide when selecting the card type what cardholder verification to use for a debit transaction. This may be either to:

- 1. Prompt the cardholder to enter the PIN (commonly referred to as "PIN Preferring Merchants"). The cardholder can, in some implementations, bypass the PIN to allow for a signature transaction.
- 2. Prompt the cardholder to select either 'Credit' or 'Debit' (commonly referred to as "Credit/Debit Prompting merchants"). In this situation:



- Credit means perform a Signature Debit transaction
- **Debit** means perform a PIN Debit transaction

This section describes how to perform Application Selection for EMV U.S. Debit so that the routing choice of the merchant is retained, and the expected cardholder verification is performed based on merchant and/or cardholder preferences. This section has been split between; PIN Preferring merchants and Credit/Debit Prompting merchants.

## 2.3 **PIN Preferring Merchants:**

The following assumptions have been made when describing the U.S. Debit Application Selection process for PIN Preferring Merchants:

- 1. Solutions supporting U.S. Debit will have two kernel configurations:
  - All CVM Configuration Terminal Capabilities (Tag 9F33) is set to support all CVMs the merchant wishes to support (e.g. PIN - offline/online, Signature and NO CVM).
  - NO CVM Configuration Terminal Capabilities (Tag 9F33) is set to support only the NO CVM option.
- 2. When using a configurable kernel, the Terminal Type (Tag 9F35) and Additional Terminal Capabilities (Tag 9F40) values may remain the same regardless of the value used for Terminal Capabilities (Tag 9F33).
- 3. PIN Bypass is supported by all PIN supporting kernel configurations.
- 4. The payment application supports a NO CVM limit for all payment products.

The steps required to filter the Candidate List to fully support U.S. Debit are:

- 1. For each transaction the final amount for the transaction must be known prior to filtering the Candidate List.
- 2. Once the final amount is known and the Candidate List is created, the card type will be identified based on the list of AIDs in the Candidate List. There are two options:
  - The Candidate List does not contain any U.S. Common Debit AIDs This is either an international or domestic credit card or an international debit card (UL USA Debit Test Cards 04, 06, 07, 15 and 16). In this case there are no additional steps required to filter the Candidate List and the application can continue to the Final Selection Process (section 1.4.3 below).
  - The Candidate List contains one or more U.S. Common Debit AIDs This is a U.S. Debit card (UL USA Debit Test Cards 01, 02, 03, 05, 08, 09, 10, 11, 12, 13 and 14).
- For U.S. Debit cards, the EMV POS Solution must determine which AIDs should remain in the Candidate List, based on the three scenarios described in Table 02 (above). Depending on the number of AIDs remaining in the Candidate List, one the following should be performed:
  - Candidate List only contains one AID Continue to step 4.
  - Candidate List contains more than one AID Continue to the Final Selection Process (section 1.4.3 below).
- 4. If the Candidate List only contains a single U.S. Common Debit AID, the EMV POS Solution must determine if the transaction is under or over the NO CVM limit:
  - Transaction is under the NO CVM limit Set Terminal Capabilities (Tag 9F33) to "NO CVM Only Configuration" and continue with Final Selection Process (section 1.4.3 below).
  - Transaction is over the NO CVM limit continue to step 5.



5. If the Candidate List contains a single U.S. Common Debit AID and the transaction is over the NO CVM limit for U.S. Debit, then set the Terminal Capabilities (Tag 9F33) to All CVM Configuration. Later during Cardholder Verification, the application will prompt for PIN and may allow the cardholder to bypass the PIN.

## 2.4 Credit/Debit Prompting Merchants:

The following assumptions have been made when describing the Application Selection process for merchants supporting Credit/Debit Prompting for U.S. Debit:

- 1. Solutions supporting U.S. Debit will have three kernel configurations:
  - All CVM Configuration Terminal Capabilities (Tag 9F33) is set to support all CVMs the merchant wishes to support (e.g. PIN - offline/online, Signature and NO CVM).
  - Signature and No CVM Configuration Terminal Capabilities (Tag 9F33) is set to support only Signature and the NO CVM option.
  - NO CVM Configuration Terminal Capabilities (Tag 9F33) is set to support only the NO CVM option.
- 2. When using a configurable kernel, the Terminal Type (Tag 9F35) and Additional Terminal Capabilities (Tag 9F40) values may remain the same regardless of the value used for Terminal Capabilities (Tag 9F33).
- 3. PIN Bypass is supported in all PIN supporting kernel configurations.
- 4. The payment application supports a NO CVM limit for all payment products.

The steps required to filter the Candidate List to fully support U.S. Debit are:

- 1. For each transaction the final amount for the transaction must be known prior to filtering the Candidate List.
- 2. For each transaction the cardholder must select either Credit or Debit.
- 3. Once the final amount is known, the cardholder has selected either Debit or Credit, the Candidate List is created, the card type will be identified based on the list of AIDs in the Candidate List. There are two options:
  - The Candidate List does not contain any U.S. Common Debit AIDs This is either an international or domestic credit card or an international debit card (UL USA Debit Test Cards 04, 06, 07, 15 and 16). In this case there are no additional steps required in relation to filtering the Candidate List and the application can continue to the Final Selection Process (section 1.4.3 below).
  - The Candidate List contains one or more U.S. Common Debit AIDs This is a U.S. Debit card (UL USA Debit Test Cards 01, 02, 03, 05, 08, 09, 10, 11, 12, 13 and 14).
- 4. For U.S. Debit cards, the EMV POS Solution must determine which AIDs should remain in the Candidate List, based on the three scenarios described in Table 02 (above). For each of the scenarios described in Table 02 the AIDs to be removed from the Candidate List will also be based on the button selected by the cardholder (Credit/Debit):
  - **Credit Button Selected** Remove all U.S. Common AIDs that share an IIN with a Global AID.
  - Debit Button Selected Remove all Global AIDs that share an IIN with a U.S. Common AID.

Depending on the number of AIDs remaining in the Candidate List, one the following should be performed:

• Candidate List only contains one AID – Continue to step 5.



- Candidate List contains more than one AID Continue to the Final Selection Process (section 1.4.3 below).
- 5. If the Candidate List only contains a single U.S. Common Debit AID, the EMV POS Solution must determine if the transaction is under or over the NO CVM limit:
  - Transaction is under the NO CVM limit Set Terminal Capabilities (Tag 9F33) to "NO CVM Only Configuration" and continue with Final Selection Process (section 1.4.3 below).

If the Candidate List only contains a single Global Debit AID, the EMV POS Solution must determine if the transaction is under or over the NO CVM limit:

- Transaction is under the NO CVM limit Set Terminal Capabilities (Tag 9F33) to "NO CVM Only Configuration" and continue with Final Selection Process (section 1.4.3 below).
- If the Transaction is over the NO CVM limit Continue to step 6.
- 6. If the Candidate List contains a single U.S. Common Debit AID and the transaction is over the U.S. Debit CVM limit for U.S. Debit, the following should be performed:
  - Transaction is over the NO CVM limit Set Terminal Capabilities (Tag 9F33) to "All CVM Configuration" and continue with Final Selection Process (section 1.4.3 below). PIN Bypass may still be allowed during EMV Cardholder Verification.

If the Candidate List contains a single Global Debit AID and the transaction is over the NO CVM limit for the Global Debit AID, the following should be performed:

 Transaction is over the NO CVM limit – Set Terminal Capabilities (Tag 9F33) to "All CVM Configuration" and continue with Final Selection Process (section 1.4.3 below). As the transaction is over the NO CVM limit and the only CVM supported by the terminal is Signature - the application should print a signature line on the receipt.

## 2.5 Final Selection Processing

Once the Candidate List has been built and U.S. Common Debit processing has been performed, Final Selection can begin. During this process the AID to be used for the transaction is selected.

If the Candidate List only contains one AID it is automatically selected, Final Selection ends and Cardholder Application Confirmation may be performed.

- Cardholder Application Confirmation is only required when the Application Priority Indicator - Cardholder Confirmation Indicator (Tag 87 bit-8) is set to '1'.
- If cardholder confirmation is required, the cardholder must be prompted to confirm that the application may be used. To do this the Application Preferred Name (Tag 9F12) or the Application Label (Tag 50) is displayed to the cardholder who must then confirm the selection.

If the Candidate List contains two or more mutually supported applications (AIDs), the application list should be presented to the cardholder for selection. However, EMV POS Solutions may auto-select the U.S. Common Debit AID (if present). In a Credit/Debit Prompting configuration, Application Selection may occur after Credit/Debit Selection. This means that it may be necessary to prompt again for Credit or Debit based on the Application Label or Preferred Name of the AIDs in the candidate list.

When presenting the Candidate List for selection, the application names may be displayed all on one screen or with one application name per screen, using navigation buttons to traverse the list (e.g. 'Next' and 'Previous'). Regardless of the method used to display the Candidate List, the



application names displayed are determined as follows:

 Display the Application Preferred Name (Tag 9F12) if it is stored in a character set supported by the display. This can be determined by checking the Issuer Code Table Index (Tag 9F11). A value of '1' indicates that the Application Preferred Name is encoded using the Latin character set (i.e. contains standard English alphabetic characters).

Display the Application Label (Tag 50) if the Application Preferred Name is not present or cannot be displayed.

If the Application Preferred Name and Application Label are not present or cannot be displayed, display a default' application name assigned to the AID by the EMV POS Solution.

Once the AID to be used for the transaction has been chosen, the kernel may relay the application information back to the payment' application, so the following can be performed:

Set the Terminal Capabilities (Tag 9F33) – This will be based on the NO CVM limit for the card type based on the merchant environment (Credit/Debit) or PIN Preferring and the AID that has been selected (either the "AII CVM Configuration", "Signature and NO CVM Configuration" or the "NO CVM Only Configuration"):

#### Global Debit AID:

- Transaction is over the NO CVM limit:
- PIN Preferring Merchant Select the "All CVM Configuration"
- Credit/Debit Prompting Merchant Select the "Signature and NO CVM Configuration"
- Transaction is under the NO CVM limit (for both PIN Preferring and Credit/Debit)
   Select the "NO CVM Only Configuration"

#### U.S. Common Debit AID:

- Transaction is over the NO CVM limit (for both PIN Preferring and Credit/Debit) -Select the "All CVM Configuration"
- Transaction is under the NO CVM limit (for both PIN Preferring and Credit/Debit)
   Select the "NO CVM Only Configuration"

Set the Processing Code:

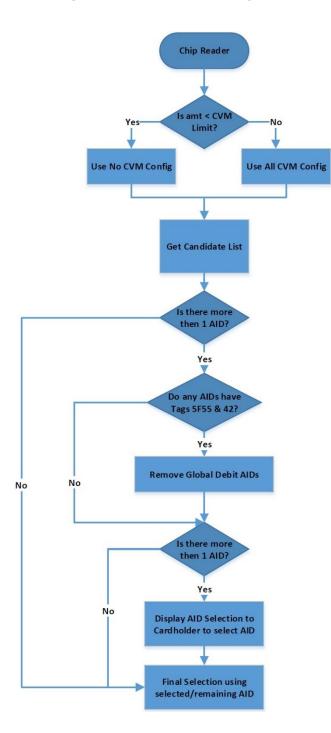
- International/Global AID selected a credit Processing Code should be used
- U.S. Common Debit AID, Interlink, Maestro or Interac selected a debit Processing Code should be used

The kernel can now select the AID on the chip and Final Selection ends.

In some implementations it may not be feasible to perform cardholder Application Selection. For these cases, an EMV transaction should not be performed if the chip card contains multiple applications, unless there is a method to inform the cardholder which application is being used.

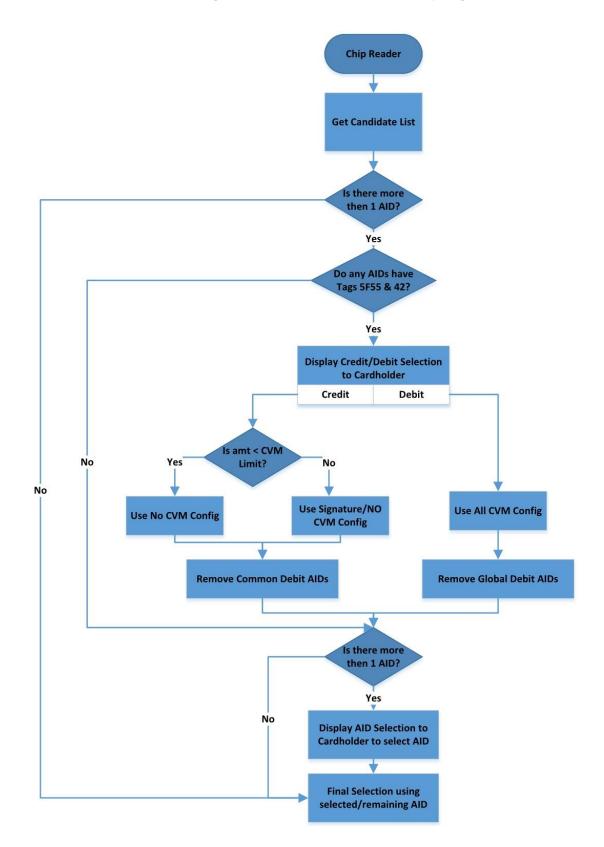


## 2.6 U.S. Debit Processing Flowchart PIN Preferring Merchants





## 2.7 U.S. Debit Processing Flowchart - Credit/Debit Prompting Merchants





# Chapter 3 - B2 USA Debit EMV Test Plan

## 3.1 Test Case Outline

To perform the tests defined in this section you will require the UL USA Debit EMV Test Card Set provided by B2. The card numbers ('TCxx') used throughout will be consistent with that set. See <u>UL USA Debit EMV Test Card Set Profiles</u> in this document.

Types of Merchant Configuration include:

- PIN Preferring (PP)
- Credit/Debit Prompting (CD)

For test cards that have more than one AID, Application Selection methods include:

- Merchant-Controlled Candidate List (MCCL)
   Also referred to as 'filtering the candidate list' in the Chapter 2, entitled Implementing U.S. Debit
- Standard EMV Application Selection (SEAS)

Note - the short forms (in brackets, above) will be used in the naming of test cases.

Test cases are organized into categories by 'Merchant Configuration'.

The test cases for each of these cards are ordered according to type of merchant and (where applicable) the method used to select the application (where the card has more than a single AID).

## 3.2 Selecting Applicable Test Cases

The test cases have been organized into four categories based on merchant configuration. Users of this document should select the relevant configuration and only use test cases applicable to that configuration:

- PIN Preferring, Merchant Controlled Candidate List
- PIN Preferring, Standard EMV Application Selection
- <u>Credit/Debit Prompting, Merchant Controlled Candidate List</u>
- <u>Credit/Debit Prompting, Standard EMV Application Selection</u>

#### 3.3 USA Debit EMV Test Cases

Important Assumption: All EMV Floor limits are set to \$0.00.

#### Important Notes:

- When the application prompts for Cashback, outcomes (Approval / Declined) may differ from one terminal configuration or host to another. It is advised that, if possible, Cashback be disabled.
- Interac Flash cards have a '1xxxxx' BIN range. These cards are supported by all Canadian processors but are not yet supported by all U.S. and international processors. Check with your acquirer account representative to determine if the Interac Flash BIN range is supported by their development host. If your processor does not yet support Interac Flash, the card will function properly at the POS but it will not obtain a host approval.

The format used for the Test Case naming is as follows.

DD.AAAA.Cxx-Tyy, where:

DD is:



- PP PIN Preferring
- CD Credit/Debit
- AAAA is: MCCL - Merchant Controlled Candidate List) SEAS - Standard EMV Application Selection
- Cxx is:
  - The <u>C</u>ard Number (01-16)
  - T**yy** is:

The Test Number (resets to "01" for each card)

#### e.g.

**PP.MCCL.C01-T01** – uses UL USA Debit Test Card 01 and would be run if the merchant is PIN Preferring and uses the Merchant-Controlled Candidate List method to choose the application. In this category there are four test cases and T01 is the first test case.

**CD.SEAS.C03-T05** – uses UL USA Debit Test Card 03 and would be run if the merchant supports Credit/Debit Prompting and uses the Standard EMV Application Selection method to choose the application. In this category there are five test cases and T05 is the fifth test case.

## 3.3.1 Test Case ID and Title

**PP.MCCL.C01-T01** PIN Preferring, Merchant Controlled Candidate List Card 01, Test 01

The first section is the Test Case ID followed by the test Title. The Title is intended to be as brief and concise as possible. In some situations, the test case Purpose and the test case number and suffix are required to distinguish the test from other similar test cases.

#### 3.3.2 Туре

Туре:	Contact		
-------	---------	--	--

The second section identifies the test case Type. Two Types are supported – 'Contact' and 'Contactless'

#### 3.3.3 Purpose

#### Purpose:

Test that when a Visa card with more than one AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' AID

The third section is the test case Purpose – this defines what is being tested by the test case.



#### 3.3.4 Pre-Requisites

#### Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

The fourth section identifies any Pre-Requisites that must be completed prior to running the test case. Each test Type will have a standard set of pre-requisites, documented at the beginning of the test section.

#### 3.3.5 Steps

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card xx

The fifth section contains the Steps required to run the test case. Each step is a simple one action process. In most cases, only the steps applicable to the test being performed are documented, not all steps required to run the complete transaction.

#### 3.3.6 Pass Criteria

#### Pass Criteria:

- 1. "Chip" indicates the card was inserted
- 2. "A000000980840" AID selected was 'US Debit'

The sixth section identifies the test case Pass Criteria. This may range from a simple prompt or message on a screen, to contents of a receipt. Receipt information shown is required, but the exact receipt text may differ based on your specific merchant implementation and/or processor requirements.

#### 3.3.7 Comments

Comments:	
-----------	--

The last section identifies any general Comments. This section is intended to provide guidance or information that does not fit easily into any of the sections above. For most test cases this section is blank.

## 3.3.8 Complete list of AIDs used in UL USA Debit EMV Test Card Set

AIDs that should be loaded in the acceptance device when testing using the UL USA Debit EMV Test Plan are seen in the table below.

Card	Application 1	Application 2	Application 3	Application 4
	A000000031010	A000000980840		
01	Debit	Debit		
	Visa Debit	US Debit		
	4761739001010135	4761739001010135		
02	A000000980840			
	Debit			
	US Debit			
	4761739001010135			
03	A00000003101001	A00000003101002	A000000980840	
	Credit	Debit	Debit	
03	Visa Credit	Visa Debit	US Debit	
	4761739001010176	4761739001010135	4761739001010135	
04	A000000033010			
	Debit			
	Interlink			
	4761739001010671			
05	A000000041010	A000000042203		
	Debit	Debit		
05	Mastercard Debit	US Maestro		
	5413330089099130	5413330089099130		
	A000000043060	A000000043060		
	D0561111	D0562222		
06	Debit	Debit		
	Maestro1	Maestro2		
	67999989000002010	67999989000002028		
	A000000041010	A000000043060		
07	Credit	Debit		
07	Mastercard	Maestro		
	5413330089020060	6799998900000200051		
	A000000042203	A000000042203		
	D0561111	D0562222		
08	Debit	Debit		
	US Checking	US Savings		
	5413330089099007	5413330089099015		
09	A0000000041010	A000000043060	A000000042203	
	Credit	Debit	Debit	
09	Mastercard	Maestro	US Maestro	
	5413330089020060	6799998900000200051	6799998900000200051	
	A000000042203			
10	Debit			
10	US Maestro			
	5413330089099130			
	A000000041010	A00000004220301	A000000043060	A00000004220302
11	Debit	Debit	Debit	Debit
	Mastercard Debit	US Checking	Maestro	US Savings
	5413330089020060	5413330089020060	6799998900000200051	6799998900002000

#### Cards 01 - 11 contents: Application AID, Credit/Debit, Label, PAN



Card	Application 1	Application 2	Application 3	Application 4
12	A000001524010	A000001523010		
	Debit	Debit		
	US Debit	Discover Debit		
	6011973700000005	6011973700000005		
13	A000001524010			
	Debit			
	US Debit			
	6011973700000005			
14	A000006200620			
	Debit			
	DNA			
	40000000000028			
15	A000002771010			
	Debit			
	Interac			
	1967302839018644			
16	A000002771010			
	Debit			
	Interac			
	4506445006931933			

#### Cards 12 - 16 contents: Application AID, Credit/Debit, Label, PAN



#### 3.3.9 PIN Preferring, Merchant Controlled Candidate List – Test Cases

#### 3.3.9.1 PP.MCCL.C01-T01

PP.MCCL.C01-T01 PIN Preferring, Merchant Controlled Candidate List Card 01 - Test 01

Type: Contact

### **Purpose:**

Test that when a Visa card with more than one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

#### **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 01
- 3. Enter PIN ("1234") when prompted

#### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.9.2 PP.MCCL.C01-T02

PP.MCCL.C01-T02 PIN Preferring, Merchant Controlled Candidate List Card 01 - Test 02

Type: Contact

## **Purpose:**

Test that when a Visa card with more than one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 01
- 3. When prompted for PIN, press Enter/Cancel to bypass PIN entry

#### Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



## 3.3.9.3 PP.MCCL.C01-T03

PP.MCCL.C01-T03 PIN Preferring, Merchant Controlled Candidate List Card 01 - Test 03

Type: Contactless

## **Purpose:**

Test that when a Visa card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840
- 4. Contactless CVM Floor limit is \$0

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, tap Test Card 01
- 3. Enter PIN ("1234") when prompted

#### Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.9.4 PP.MCCL.C01-T04

PP.MCCL.C01-T04 PIN Preferring, Merchant Controlled Candidate List Card 01 - Test 04

Type: Contactless

#### **Purpose:**

Test that when a Visa card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Does <u>not</u> prompt for PIN as the transaction amount is under the Contactless CVM Floor Limit

#### **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840
- 4. Contactless CVM Floor limit is above \$10

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, tap Test Card 01

#### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. User is not prompted to enter a PIN
- 4. The 'US Debit' application is automatically selected
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "No signature required" No CVM was used



#### 3.3.9.5 PP.MCCL.C02-T01

PP.MCCL.C02-T01 PIN Preferring, Merchant Controlled Candidate List Card 02 - Test 01

Type: Contact

## **Purpose:**

Test that when a Visa card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000980840

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 02
- 3. Enter PIN ("1234") when prompted

#### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.9.6 PP.MCCL.C02-T02

PP.MCCL.C02-T02 PIN Preferring, Merchant Controlled Candidate List Card 02 - Test 02

Type: Contact

### **Purpose:**

Test that when a Visa card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000980840
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 02
- 3. When prompted for PIN, press Enter/Cancel to bypass PIN entry

#### Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



#### 3.3.9.7 PP.MCCL.C03-T01

## PP.MCCL.C03-T01 PIN Preferring, Merchant Controlled Candidate List Card 03 - Test 01

Type: Contact

## **Purpose:**

Test that when a Visa card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Visa Credit' and 'US Debit' only
- 2. Allows the user to select the 'Visa Credit' application
- 3. Uses Signature/No CVM as the CVM for the transaction

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

## Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 03
- 3. Select 'Visa Credit' application when prompted

## Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Visa Credit' and 'US Debit' only
- 3. User is able to select 'Visa Credit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000003101001" AID selected was 'Visa Credit'
  - c. "0176" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



#### 3.3.9.8 **PP.MCCL.C03-T02**

## PP.MCCL.C03-T02 PIN Preferring, Merchant Controlled Candidate List Card 03 - Test 02

Type: Contact

#### **Purpose:**

Test that when a Visa card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Visa Credit' and 'US Debit' only
- 2. Allows the user to select the 'US Debit' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 03
- 3. Select 'US Debit' application when prompted
- 4. Enter PIN ("1234") when prompted

#### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Visa Credit' and 'US Debit' only
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.9.9 PP.MCCL.C03-T03

**PP.MCCL.C03-T03** PIN Preferring, Merchant Controlled Candidate List Card 03 - Test 03

Type: Contact

#### **Purpose:**

Test that when a Visa card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Visa Credit' and 'US Debit' only
- 2. Allows the user to select the 'US Debit' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 03
- 3. Select 'US Debit' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

#### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Visa Credit' and 'US Debit' only
- 3. User is able to select 'US Debit'
- 4. When PIN is <u>not</u> entered the transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



#### 3.3.9.10 PP.MCCL.C04-T01

PP.MCCL.C04-T01 PIN Preferring, Merchant Controlled Candidate List Card 04 - Test 01

Type: Contact

## **Purpose:**

Test that when a Visa card with only the Interlink AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'Interlink' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000033010

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 04
- 3. Enter PIN ("1234") when prompted

#### **Pass Criteria:**

- 4. User is not prompted to select 'Credit' or 'Debit'
- 5. User is <u>not</u> prompted to select an application
- 6. The Interlink application is automatically selected
- 7. The transaction is approved
- 8. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000033010" AID selected was 'Interlink'
  - c. "0671" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.9.11 PP.MCCL.C05-T01

PP.MCCL.C05-T01 PIN Preferring, Merchant Controlled Candidate List Card 05 - Test 01

Type: Contact

#### **Purpose:**

Test that when a Mastercard card with more than one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Prompts the user to enter a PIN

#### **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 05
- 3. Enter PIN ("4315") when prompted

#### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.9.12 **PP.MCCL.C05-T02**

PP.MCCL.C05-T02 PIN Preferring, Merchant Controlled Candidate List Card 05 - Test 02

Type: Contact

#### **Purpose:**

Test that when a Mastercard card with more than one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Allows the user to bypass PIN entry

#### **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000042203
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 05
- 3. When prompted for PIN, press Enter/Cancel to bypass PIN entry

#### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



### 3.3.9.13 **PP.MCCL.C05-T03**

**PP.MCCL.C05-T03** PIN Preferring, Merchant Controlled Candidate List Card 05 - Test 03

Type: Contactless

### **Purpose:**

Test that when a Mastercard card with more than one Debit AID is tapped, the application:

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000042203
- 4. Contactless CVM Floor limit is \$0

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, tap Test Card 05
- 3. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.9.14 **PP.MCCL.C05-T04**

PP.MCCL.C05-T04 PIN Preferring, Merchant Controlled Candidate List Card 05 - Test 04

Type: Contactless

#### **Purpose:**

Test that when a Mastercard card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Does <u>not</u> prompt for PIN as the transaction amount is under the Contactless CVM Floor Limit

### **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000042203
- 4. Contactless CVM Floor limit is above \$20

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, tap Test Card 05

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. User is not prompted to enter a PIN
- 4. The 'US Maestro' application is automatically selected
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "No signature required" No CVM was used



#### 3.3.9.15 PP.MCCL.C06-T01

PP.MCCL.C06-T01 PIN Preferring, Merchant Controlled Candidate List Card 06 - Test 01

Type: Contact

#### **Purpose:**

Test that when a Maestro card with more than one Maestro AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Maestro1' and 'Maestro2'
- 2. Allows the user to select the 'Maestro1' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000043060

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 06
- 3. Select 'Maestro1' application when prompted
- 4. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- 3. User is able to select 'Maestro1'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000043060D0561111" AID selected was 'Maestro1'
  - c. "2010" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.9.16 **PP.MCCL.C06-T02**

PP.MCCL.C06-T02 PIN Preferring, Merchant Controlled Candidate List Card 06 - Test 02

Type: Contact

### **Purpose:**

Test that when a Maestro card with more than one Maestro AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Maestro1' and 'Maestro2'
- 2. Allows the user to select the 'Maestro2' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000043060

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 06
- 3. Select 'Maestro2' application when prompted
- 4. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- 3. User is able to select 'Maestro2'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000043060D0562222" AID selected was 'Maestro2'
  - c. "2028" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.9.17 PP.MCCL.C07-T01

# PP.MCCL.C07-T01 PIN Preferring, Merchant Controlled Candidate List Card 07 - Test 01

Type: Contact

### **Purpose:**

Test that when a Mastercard card with a Credit AID and a Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Mastercard' and 'Maestro'
- 2. Allows the user to select the 'Mastercard' application
- 3. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 07
- 3. Select 'Mastercard' application when prompted
- 4. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard'
  - c. "0060" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.9.18 **PP.MCCL.C07-T02**

# **PP.MCCL.C07-T02** PIN Preferring, Merchant Controlled Candidate List Card 07 - Test 02

Type: Contact

### **Purpose:**

Test that when a Mastercard card with a Credit AID and a Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Mastercard' and 'Maestro'
- 2. Allows the user to select the 'Mastercard' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060
- 4. PIN Bypass is supported

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 07
- 3. Select 'Mastercard' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard'
  - c. "0060" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



### 3.3.9.19 PP.MCCL.C07-T03

PP.MCCL.C07-T03 PIN Preferring, Merchant Controlled Candidate List Card 07 - Test 03

Type: Contact

### **Purpose:**

Test that when a Mastercard card with a Credit AID and a Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Mastercard' and 'Maestro'
- 2. Allows the user to select the 'Maestro' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 07
- 3. Select 'Maestro' application when prompted
- 4. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 3. User is able to select 'Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000043060" AID selected was Maestro
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.9.20 PP.MCCL.C08-T01

PP.MCCL.C08-T01 PIN Preferring, Merchant Controlled Candidate List Card 08 - Test 01

Type: Contact

### **Purpose:**

Test that when a U.S. Maestro card with more than one U.S. Maestro AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings' only
- 2. Allows the user to select the 'US Checking' application
- 3. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000042203

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. Select 'US Checking' application when prompted
- 4. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000042203D0561111" AID selected was 'US Checking'
  - c. "9007" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.9.21 **PP.MCCL.C08-T02**

PP.MCCL.C08-T02 PIN Preferring, Merchant Controlled Candidate List Card 08 - Test 02

Type: Contact

### **Purpose:**

Test that when a U.S. Maestro card with more than one U.S. Maestro AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings' only
- 2. Allows the user to select the 'US Checking' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000042203
- 4. PIN Bypass is supported

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. Select 'US Checking' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000042203D0561111" AID selected was 'US Checking'
  - c. "9007" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



#### 3.3.9.22 PP.MCCL.C08-T03

PP.MCCL.C08-T03 PIN Preferring, Merchant Controlled Candidate List Card 08 - Test 03

Type: Contact

### **Purpose:**

Test that when a U.S. Maestro card with more than one U.S. Maestro AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings' only
- 2. Allows the user to select the 'US Savings' application
- 3. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000042203

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. Select 'US Savings' application when prompted
- 4. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000042203D0562222" AID selected was 'US Savings'
  - c. "9015" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.9.23 PP.MCCL.C08-T04

PP.MCCL.C08-T04 PIN Preferring, Merchant Controlled Candidate List Card 08 - Test 04

Type: Contact

### **Purpose:**

Test that when a U.S. Maestro card with more than one U.S. Maestro AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings' only
- 2. Allows the user to select the 'US Savings' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000042203
- 4. PIN Bypass is supported

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. Select 'US Savings' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

# **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Savings'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000042203D0562222" AID selected was 'US Savings'
  - c. "9015" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



#### 3.3.9.24 PP.MCCL.C09-T01

# PP.MCCL.C09-T01 PIN Preferring, Merchant Controlled Candidate List Card 09 - Test 01

Type: Contact

#### **Purpose:**

Test that when a Mastercard card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Mastercard' and 'US Maestro' only
- 2. Allows the user to select the 'Mastercard' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 3. Select 'Mastercard' application when prompted
- 4. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'US Maestro' only
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard'
  - c. "0060" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.9.25 PP.MCCL.C09-T02

PP.MCCL.C09-T02 PIN Preferring, Merchant Controlled Candidate List Card 09 - Test 02

Type: Contact

### **Purpose:**

Test that when a Mastercard card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Mastercard' and 'US Maestro' only
- 2. Allows the user to select the 'Mastercard' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 3. Select 'Mastercard' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'US Maestro' only
- 3. User is able to select 'Mastercard'
- 4. When PIN is not entered the transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard'
  - c. "0060" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



#### 3.3.9.26 PP.MCCL.C09-T03

**PP.MCCL.C09-T03** PIN Preferring, Merchant Controlled Candidate List Card 09 - Test 03

Type: Contact

### **Purpose:**

Test that when a Mastercard card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Mastercard' and 'US Maestro' only
- 2. Allows the user to select the 'US Maestro' application
- 3. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 3. Select 'US Maestro' application when prompted
- 4. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'US Maestro' only
- 3. User is able to select 'US Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.9.27 PP.MCCL.C09-T04

PP.MCCL.C09-T04 PIN Preferring, Merchant Controlled Candidate List Card 09 - Test 04

Type: Contact

### **Purpose:**

Test that when a Mastercard card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Mastercard' and 'US Maestro' only
- 2. Allows the user to select the 'US Maestro' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 3. Select 'US Maestro' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

### Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'US Maestro' only
- 3. User is able to select 'US Maestro'
- 4. When PIN is not entered the transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "0051" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



### 3.3.9.28 PP.MCCL.C10-T01

PP.MCCL.C10-T01 PIN Preferring, Merchant Controlled Candidate List Card 10 - Test 01

Type: Contact

## **Purpose:**

Test that when a Mastercard card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000042203

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 10
- 3. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.9.29 PP.MCCL.C10-T02

PP.MCCL.C10-T02 PIN Preferring, Merchant Controlled Candidate List Card 10 - Test 02

Type: Contact

### **Purpose:**

Test that when a Mastercard card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000042203
- 4. PIN Bypass is supported

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 10
- 3. When prompted for PIN, press Enter/Cancel to bypass PIN entry

### Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



### 3.3.9.30 PP.MCCL.C11-T01

# PP.MCCL.C11-T01 PIN Preferring, Merchant Controlled Candidate List Card 11 - Test 01

Type: Contact

#### **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings' only
- 2. Allows the user to select the 'US Checking' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. Select 'US Checking' application when prompted
- 4. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000004220301" AID selected was 'US Checking'
  - c. "0060" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.9.31 PP.MCCL.C11-T02

**PP.MCCL.C11-T02** PIN Preferring, Merchant Controlled Candidate List Card 11 - Test 02

Type: Contact

### **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings' only
- 2. Allows the user to select the 'US Checking' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. Select 'US Checking' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

### Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000004220301" AID selected was 'US Checking'
  - c. "0060" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



#### 3.3.9.32 PP.MCCL.C11-T03

**PP.MCCL.C11-T03** PIN Preferring, Merchant Controlled Candidate List Card 11 - Test 03

Type: Contact

### **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings' only
- 2. Allows the user to select the 'US Savings' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. Select 'US Savings' application when prompted
- 4. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000004220302" AID selected was 'US Savings'
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.9.33 PP.MCCL.C11-T04

PP.MCCL.C11-T04 PIN Preferring, Merchant Controlled Candidate List Card 11 - Test 04

Type: Contact

### **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings' only
- 2. Allows the user to select the 'US Savings' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. Select 'US Savings' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

### Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Savings'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000004220302" AID selected was 'US Savings'
  - c. "0051" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



### 3.3.9.34 PP.MCCL.C12-T01

PP.MCCL.C12-T01 PIN Preferring, Merchant Controlled Candidate List Card 12 - Test 01

Type: Contact

### **Purpose:**

Test that when a Discover card with more than one Debit AID is inserted, the application:

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010

#### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 12
- 3. Enter PIN ("1234") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.9.35 PP.MCCL.C12-T02

# **PP.MCCL.C12-T02** PIN Preferring, Merchant Controlled Candidate List Card 12 - Test 02

Type: Contact

### **Purpose:**

Test that when a Discover card with more than one Debit AID is inserted, the application:

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Allows the user to bypass PIN entry

### **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 12
- 3. When prompted for PIN, press Enter/Cancel to bypass PIN entry

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



### 3.3.9.36 PP.MCCL.C12-T03

**PP.MCCL.C12-T03** PIN Preferring, Merchant Controlled Candidate List Card 12 - Test 03

Type: Contactless

### **Purpose:**

Test that when a Discover card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010
- 4. Contactless CVM Floor limit is \$0

### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, tap Test Card 12
- 3. Enter PIN ("1234") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.9.37 PP.MCCL.C12-T04

PP.MCCL.C12-T04 PIN Preferring, Merchant Controlled Candidate List Card 12 - Test 04

Type: Contactless

#### **Purpose:**

Test that when a Discover card with more than one Debit AID is tapped, the application:

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Does <u>not</u> prompt for PIN as the transaction amount is under the Contactless CVM Floor Limit

### **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010
- 4. Contactless CVM Floor limit is above \$79

#### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, tap Test Card 12

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. User is not prompted to enter a PIN
- 4. The 'US Debit' application is automatically selected
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "No signature required" No CVM was used



### 3.3.9.38 PP.MCCL.C13-T01

PP.MCCL.C13-T01 PIN Preferring, Merchant Controlled Candidate List Card 13 - Test 01

Type: Contact

## **Purpose:**

Test that when a Discover card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A0000001524010

## Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 13
- 3. Enter PIN ("1234") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.9.39 PP.MCCL.C13-T02

PP.MCCL.C13-T02 PIN Preferring, Merchant Controlled Candidate List Card 13 - Test 02

Type: Contact

### **Purpose:**

Test that when a Discover card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A0000001524010
- 4. PIN Bypass is supported

### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 13
- 3. When prompted for PIN, press Enter/Cancel to bypass PIN entry

### Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



### 3.3.9.40 PP.MCCL.C14-T01

PP.MCCL.C14-T01 PIN Preferring, Merchant Controlled Candidate List Card 14 - Test 01

Type: Contact

## **Purpose:**

Test that when a DNA card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'DNA' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A0000006200620

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 14
- 3. Enter PIN ("1234") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The DNA application is automatically selected
- 4. The transaction is approved / declined \*
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000006200620" AID selected was 'DNA'
  - c. "0028" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used

### **Comments:**

\* Final disposition (Approved / Declined) is outside the scope of this document. For this test case to be successful, the transaction should go online but as the cryptogram doesn't need to be valid, the host may approve or decline.



### 3.3.9.41 PP.MCCL.C15-T01

PP.MCCL.C15-T01 PIN Preferring, Merchant Controlled Candidate List Card 15 - Test 01

Type: Contact

### **Purpose:**

Test that when an Interac Flash card with only one Debit AID is inserted, the application:

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'Interac' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A0000002771010

### Steps:

- 1. Start a Purchase transaction for \$30.00
- 2. When prompted for card entry, insert Test Card 15
- 3. Enter PIN ("1234") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Interac' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000002771010" AID selected was 'Interac'
  - c. "8644" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used

## **Comments:**

Account selection prompting (Chequing/Savings) is not a requirement for terminals deployed in the USA.



### 3.3.9.42 PP.MCCL.C16-T01

PP.MCCL.C16-T01 PIN Preferring, Merchant Controlled Candidate List Card 16 - Test 01

Type: Contact

## **Purpose:**

Test that when an Interac card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'Interac' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A0000002771010

### Steps:

- 1. Start a Purchase transaction for \$30.00
- 2. When prompted for card entry, insert Test Card 16
- 3. Enter PIN ("1234") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Interac' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000002771010" AID selected was 'Interac'
  - c. "1933" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used

### **Comments:**

Account selection prompting (Chequing/Savings) is not a requirement for terminals deployed in the USA.



## 3.3.10 PIN Preferring, Standard EMV Application Selection – Test Cases

### 3.3.10.1 PP.SEAS.C01-T01

**PP.SEAS.C01-T01** PIN Preferring, Standard EMV Application Selection Card 01 - Test 01

## Type: Contact

### **Purpose:**

Test that when a Visa card with more than one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Prompts the user for Application Selection by displaying 'Visa Debit' and 'US Debit'
- 3. Allows the user to select the 'Visa Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 01
- 3. Select 'Visa Debit' application when prompted

# Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Visa Debit' and 'US Debit'
- 3. User is able to select 'Visa Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000031010" AID selected was 'Visa Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



### 3.3.10.2 PP.SEAS.C01-T02

**PP.SEAS.C01-T02** PIN Preferring, Standard EMV Application Selection Card 01 - Test 02

Type: Contact

## **Purpose:**

Test that when a Visa card with more than one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Prompts the user for Application Selection by displaying 'Visa Debit' and 'US Debit'
- 3. Allows the user to select the 'US Debit' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 01
- 3. Select 'US Debit' application when prompted
- 4. Enter PIN ("1234") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Visa Debit' and 'US Debit'
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.10.3 PP.SEAS.C01-T03

PP.SEAS.C01-T03 PIN Preferring, Standard EMV Application Selection Card 01 - Test 03

Type: Contact

### **Purpose:**

Test that when a Visa card with more than one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Prompts the user for Application Selection by displaying 'Visa Debit' and 'US Debit'
- 3. Allows the user to select the 'US Debit' application
- 4. Allows the user to bypass PIN entry

#### **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A000000980840
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 01
- 3. Select 'US Debit' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Visa Debit' and 'US Debit'
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



### 3.3.10.4 PP.SEAS.C01-T04

PP.SEAS.C01-T04 PIN Preferring, Standard EMV Application Selection Card 01 - Test 04

Type: Contactless

#### Purpose:

Test that when a Visa card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'Visa Debit' application
- 4. Uses Signature as the CVM for the transaction

### **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A000000980840
- 4. Contactless CVM Floor limit is \$0

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, tap Test Card 01

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000031010" AID selected was 'Visa Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Signature panel" Signature CVM was used



### 3.3.10.5 PP.SEAS.C01-T05

**PP.SEAS.C01-T05** PIN Preferring, Standard EMV Application Selection Card 01 - Test 05

Type: Contactless

### Purpose:

Test that when a Visa card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'Visa Debit' application
- 4. Does <u>not</u> require a Signature as the transaction amount is under the Contactless CVM Floor Limit

### **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A000000980840
- 4. Contactless CVM Floor limit is above \$10

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, tap Test Card 01

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000031010" AID selected was 'Visa Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "No Signature Required" No CVM was used



### 3.3.10.6 PP.SEAS.C02-T01

PP.SEAS.C02-T01 PIN Preferring, Standard EMV Application Selection Card 02 - Test 01

Type: Contact

## Purpose:

Test that when a Visa card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000980840

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 02
- 3. Enter PIN ("1234") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.7 PP.SEAS.C02-T02

PP.SEAS.C02-T02 PIN Preferring, Standard EMV Application Selection Card 02 - Test 02

Type: Contact

## Purpose:

Test that when a Visa card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000980840
- 4. PIN Bypass is supported

## Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 02
- 3. When prompted for PIN, press Enter/Cancel to bypass PIN entry

## Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



## 3.3.10.8 PP.SEAS.C03-T01

# PP.SEAS.C03-T01 PIN Preferring, Standard EMV Application Selection Card 03 - Test 01

Type: Contact

## **Purpose:**

Test that when a Visa card with a Credit and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 2. Allows the user to select the 'Visa Credit' application
- 3. Uses Signature/No CVM as the CVM for the transaction

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 03
- 3. Select 'Visa Credit' application when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. User is able to select 'Visa Credit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000003101001" AID selected was 'Visa Credit'
  - c. '0176' last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



## 3.3.10.9 PP.SEAS.C03-T02

# PP.SEAS.C03-T02 PIN Preferring, Standard EMV Application Selection Card 03 - Test 02

Type: Contact

## **Purpose:**

Test that when a Visa card with a Credit and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 2. Allows the user to select the 'Visa Debit' application
- 3. Uses Signature/No CVM as the CVM for the transaction

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 03
- 3. Select 'Visa Debit' application when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. User is able to select 'Visa Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000003101002" AID selected was 'Visa Debit'
  - c. '0135' last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



## 3.3.10.10 PP.SEAS.C03-T03

# PP.SEAS.C03-T03 PIN Preferring, Standard EMV Application Selection Card 03 - Test 03

Type: Contact

## **Purpose:**

Test that when a Visa card with a Credit and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 2. Allows the user to select the 'US Debit' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 03
- 3. Select 'US Debit' application when prompted
- 4. Enter PIN ("1234") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. '0135 last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.11 PP.SEAS.C03-T04

# PP.SEAS.C03-T04 PIN Preferring, Standard EMV Application Selection Card 03 - Test 04

Type: Contact

## **Purpose:**

Test that when a Visa card with a Credit and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 2. Allows the user to select the 'US Debit' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000031010, A000000980840
- 4. PIN Bypass is supported

## Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 03
- 3. Select 'US Debit' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. '0135' last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



## 3.3.10.12 PP.SEAS.C04-T01

PP.SEAS.C04-T01 PIN Preferring, Standard EMV Application Selection Card 04 - Test 01

Type: Contact

## Purpose:

Test that when a Visa card with only the Interlink AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'Interlink' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000033010

## Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 04
- 3. Enter PIN ("1234") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Interlink' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000033010" AID selected was 'Interlink'
  - c. "0671" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.13 PP.SEAS.C05-T01

PP.SEAS.C05-T01 PIN Preferring, Standard EMV Application Selection Card 05 - Test 01

Type: Contact

## **Purpose:**

Test that when a Mastercard card with more than one Debit AID is inserted, the application:

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Prompts the user for Application Selection by displaying 'Mastercard Debit' and 'US Maestro'
- 3. Allows the user to select the 'Mastercard Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000042203

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 05
- 3. Select 'Mastercard Debit' application when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard and 'US Maestro'
- 3. User is able to select 'Mastercard Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard Debit'
  - c. "9130" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



## 3.3.10.14 PP.SEAS.C05-T02

PP.SEAS.C05-T02 PIN Preferring, Standard EMV Application Selection Card 05 - Test 02

Type: Contact

## **Purpose:**

Test that when a Mastercard card with more than one Debit AID is inserted, the application:

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Prompts the user for Application Selection by displaying 'Mastercard Debit' and 'US Maestro'
- 3. Allows the user to select the 'US Maestro' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000042203

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 05
- 3. Select 'US Maestro' application when prompted
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard Debit' and 'US Maestro'
- 3. User is able to select 'US Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.15 PP.SEAS.C05-T03

PP.SEAS.C05-T03 PIN Preferring, Standard EMV Application Selection Card 05 - Test 03

Type: Contact

## **Purpose:**

Test that when a Mastercard card with more than one Debit AID is inserted, the application:

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Prompts the user for Application Selection by displaying 'Mastercard Debit' and 'US Maestro'
- 3. Allows the user to select the 'US Maestro' application
- 4. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000042203
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, tap Test Card 05
- 3. Select 'US Maestro' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard Debit' and 'US Maestro'
- 3. User is able to select 'US Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



### 3.3.10.16 PP.SEAS.C05-T04

PP.SEAS.C05-T04 PIN Preferring, Standard EMV Application Selection Card 05 - Test 04

Type: Contactless

## **Purpose:**

Test that when a Mastercard card with more than one Debit AID is tapped, the application:

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'Mastercard Debit' application
- 4. Uses Signature as the CVM for the transaction

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000042203
- 4. Contactless CVM Floor limit is \$0

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, tap Test Card 05

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Mastercard Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000041010" AID selected was 'Mastercard Debit'
  - c. "9130" last 4 digits of the PAN
  - d. "Signature Panel" Signature CVM was used



## 3.3.10.17 PP.SEAS.C05-T05

PP.SEAS.C05-T05 PIN Preferring, Standard EMV Application Selection Card 05 - Test 05

Type: Contactless

## **Purpose:**

Test that when a Mastercard card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'Mastercard Debit' application
- 4. Does <u>not</u> require a Signature as the transaction amount is under the Contactless CVM Floor Limit

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000042203
- 4. Contactless CVM Floor limit is above \$20

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, tap Test Card 05

#### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Mastercard Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000041010" AID selected was 'Mastercard Debit'
  - c. "9130" last 4 digits of the PAN
  - d. "No Signature Required" No CVM was used



## 3.3.10.18 PP.SEAS.C06-T01

PP.SEAS.C06-T01 PIN Preferring, Standard EMV Application Selection Card 06 - Test 01

Type: Contact

## **Purpose:**

Test that when a Maestro card with more than one Maestro AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Maestro1' and 'Maestro2'
- 2. Allows the user to select the 'Maestro1' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000043060

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 06
- 3. Select 'Maestro1' application when prompted
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- 3. User is able to select 'Maestro1'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000043060D0561111" AID selected was 'Maestro1'
  - c. "2010" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.19 PP.SEAS.C06-T02

PP.SEAS.C06-T02 PIN Preferring, Standard EMV Application Selection Card 06 - Test 02

Type: Contact

## **Purpose:**

Test that when a Maestro card with more than one Maestro AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Maestro1' and 'Maestro2'
- 2. Allows the user to select the 'Maestro2' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000043060

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 06
- 3. Select 'Maestro2' application when prompted
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- 3. User is able to select 'Maestro2'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000043060D0562222" AID selected was 'Maestro2'
  - c. "2028" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.20 PP.SEAS.C07-T01

# PP.SEAS.C07-T01 PIN Preferring, Standard EMV Application Selection Card 07 - Test 01

Type: Contact

## **Purpose:**

Test that when a Mastercard card with a Credit and a Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Mastercard' and 'Maestro'
- 2. Allows the user to select the 'Mastercard' application
- 3. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 07
- 3. Select 'Mastercard' application when prompted
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard'
  - c. "0060" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.21 PP.SEAS.C07-T02

# **PP.SEAS.C07-T02** PIN Preferring, Standard EMV Application Selection Card 07 - Test 02

Type: Contact

## **Purpose:**

Test that when a Mastercard card with a Credit and a Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Mastercard' and 'Maestro'
- 2. Allows the user to select the 'Mastercard' application
- 3. Allows the user to bypass the PIN

# **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060
- 4. PIN Bypass is supported

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 07
- 3. Select 'Mastercard' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass the PIN entry

# **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard'
  - c. "0060" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



## 3.3.10.22 PP.SEAS.C07-T03

# PP.SEAS.C07-T03 PIN Preferring, Standard EMV Application Selection Card 07 - Test 03

Type: Contact

## **Purpose:**

Test that when a Mastercard card with a Credit and a Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'Mastercard' and 'Maestro'
- 2. Allows the user to select the 'Maestro' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 07
- 3. Select 'Maestro' application when prompted
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 3. User is able to select 'Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000043060" AID selected was Maestro
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.23 PP.SEAS.C08-T01

PP.SEAS.C08-T01 PIN Preferring, Standard EMV Application Selection Card 08 - Test 01

Type: Contact

## **Purpose:**

Test that when a U.S. Maestro card with more than one U.S. Maestro AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings'
- 2. Allows the user to select the 'US Checking' application
- 3. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000042203

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. Select 'US Checking' application when prompted
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000042203D0561111" AID selected was 'US Checking'
  - c. "9007" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.24 PP.SEAS.C08-T02

PP.SEAS.C08-T02 PIN Preferring, Standard EMV Application Selection Card 08 - Test 02

Type: Contact

## **Purpose:**

Test that when a U.S. Maestro card with more than one U.S. Maestro AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings'
- 2. Allows the user to select the 'US Checking' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000042203
- 4. PIN Bypass is supported

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. Select 'US Checking' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000042203D0561111" AID selected was 'US Checking'
  - c. "9007" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



## 3.3.10.25 PP.SEAS.C08-T03

PP.SEAS.C08-T03 PIN Preferring, Standard EMV Application Selection Card 08 - Test 03

Type: Contact

## **Purpose:**

Test that when a U.S. Maestro card with more than one U.S. Maestro AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings'
- 2. Allows the user to select the 'US Savings' application
- 3. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000042203

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. Select 'US Savings' application when prompted
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000042203D0562222" AID selected was 'US Savings'
  - c. "9015" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.10.26 PP.SEAS.C08-T04

PP.SEAS.C08-T04 PIN Preferring, Standard EMV Application Selection Card 08 - Test 04

Type: Contact

## **Purpose:**

Test that when a U.S. Maestro card with more than one U.S. Maestro AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings'
- 2. Allows the user to select the 'US Savings' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000042203
- 4. PIN Bypass is supported

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. Select 'US Savings' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Savings'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000042203D0562222" AID selected was 'US Savings'
  - c. "9015" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



## 3.3.10.27 PP.SEAS.C09-T01

# PP.SEAS.C09-T01 PIN Preferring, Standard EMV Application Selection Card 09 - Test 01

Type: Contact

## **Purpose:**

Test that when a Mastercard card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 2. Allows the user to select the 'Mastercard' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 3. Select 'Mastercard' application when prompted
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard'
  - c. "0060" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.10.28 PP.SEAS.C09-T02

# PP.SEAS.C09-T02 PIN Preferring, Standard EMV Application Selection Card 09 - Test 02

Type: Contact

## **Purpose:**

Test that when a Mastercard card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 2. Allows the user to select the 'Mastercard' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 3. Select 'Mastercard' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

#### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'Mastercard'
- 4. When PIN is not entered the transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard'
  - c. "0060" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



#### 3.3.10.29 PP.SEAS.C09-T03

# **PP.SEAS.C09-T03** PIN Preferring, Standard EMV Application Selection Card 09 - Test 03

Type: Contact

## **Purpose:**

Test that when a Mastercard card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 2. Allows the user to select the 'Maestro' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 3. Select 'Maestro' application when prompted
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000043060" AID selected was 'Maestro'
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.10.30 PP.SEAS.C09-T04

PP.SEAS.C09-T04 PIN Preferring, Standard EMV Application Selection Card 09 - Test 04

Type: Contact

## **Purpose:**

Test that when a Mastercard card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 2. Allows the user to select the 'US Maestro' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 3. Select 'US Maestro' application when prompted
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'US Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.10.31 PP.SEAS.C09-T05

# PP.SEAS.C09-T05 PIN Preferring, Standard EMV Application Selection Card 09 - Test 05

Type: Contact

## **Purpose:**

Test that when a Mastercard card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 2. Allows the user to select the 'US Maestro' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 3. Select 'US Maestro' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'US Maestro'
- 4. When PIN is not entered the transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "0051" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



## 3.3.10.32 PP.SEAS.C10-T01

PP.SEAS.C10-T01 PIN Preferring, Standard EMV Application Selection Card 10 - Test 01

Type: Contact

## **Purpose:**

Test that when a Mastercard card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000042203

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 10
- 3. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.33 PP.SEAS.C10-T02

PP.SEAS.C10-T02 PIN Preferring, Standard EMV Application Selection Card 10 - Test 02

Type: Contact

## **Purpose:**

Test that when a Mastercard card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000042203
- 4. PIN Bypass is supported

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 10
- 3. When prompted for PIN, press Enter/Cancel to bypass PIN entry

## Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



## 3.3.10.34 PP.SEAS.C11-T01

# **PP.SEAS.C11-T01** PIN Preferring, Standard EMV Application Selection Card 11 - Test 01

Type: Contact

## **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 2. Allows the user to select the 'Mastercard Debit' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. Select 'Mastercard Debit' application when prompted
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'Mastercard Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard Debit'
  - c. "0060" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.35 PP.SEAS.C11-T02

# **PP.SEAS.C11-T02** PIN Preferring, Standard EMV Application Selection Card 11 - Test 02

Type: Contact

## **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 2. Allows the user to select the 'Mastercard Debit' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 4. Application is configured as PIN Preferring
- 5. Application Selection is Standard EMV Application Selection
- 6. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 7. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. Select 'Mastercard Debit' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'Mastercard Debit'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard Debit'
  - c. "0060" last 4 digits of the PAN
  - "No signature required" or "Signature panel" No CVM or Signature CVM was used



## 3.3.10.36 PP.SEAS.C11-T03

# **PP.SEAS.C11-T03** PIN Preferring, Standard EMV Application Selection Card 11 - Test 03

Type: Contact

## **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 2. Allows the user to select the 'US Checking' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. Select 'US Checking' application when prompted
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000004220301" AID selected was 'US Checking'
  - c. "0060" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.37 PP.SEAS.C11-T04

# **PP.SEAS.C11-T04** PIN Preferring, Standard EMV Application Selection Card 11 - Test 04

Type: Contact

## **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 2. Allows the user to select the 'US Checking' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. Select 'US Checking' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000004220301" AID selected was 'US Checking'
  - c. "0060" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



## 3.3.10.38 PP.SEAS.C11-T05

# **PP.SEAS.C11-T05** PIN Preferring, Standard EMV Application Selection Card 11 - Test 05

Type: Contact

## **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 2. Allows the user to select the 'Maestro' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. Select 'Maestro' application when prompted
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000043060" AID selected was 'Maestro'
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.39 PP.SEAS.C11-T06

# **PP.SEAS.C11-T06** PIN Preferring, Standard EMV Application Selection Card 11 - Test 06

Type: Contact

## **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 2. Allows the user to select the 'US Savings' application
- 3. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. Select 'US Savings' application when prompted
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000004220302" AID selected was 'US Savings'
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.40 PP.SEAS.C11-T07

# **PP.SEAS.C11-T07** PIN Preferring, Standard EMV Application Selection Card 11 - Test 07

Type: Contact

## **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 2. Allows the user to select the 'US Savings' application
- 3. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. Select 'US Savings' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'US Savings'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000004220302" AID selected was 'US Savings'
  - c. "0051" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



## 3.3.10.41 PP.SEAS.C12-T01

PP.SEAS.C12-T01 PIN Preferring, Standard EMV Application Selection Card 12 - Test 01

Type: Contact

## **Purpose:**

Test that when a Discover card with more than one Debit AID is inserted, the application:

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Prompts the user for Application Selection by displaying 'US Debit' and 'Discover Debit'
- 3. Allows the user to select the 'US Debit' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010

## Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 12
- 3. Select 'US Debit' application when prompted
- 4. Enter PIN ("1234") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Debit' and 'Discover Debit'
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.42 PP.SEAS.C12-T02

PP.SEAS.C12-T02 PIN Preferring, Standard EMV Application Selection Card 12 - Test 02

Type: Contact

## **Purpose:**

Test that when a Discover card with more than one Debit AID is inserted, the application:

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Prompts the user for Application Selection by displaying 'US Debit' and 'Discover Debit'
- 3. Allows the user to select the 'US Debit' application
- 4. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 12
- 3. Select 'US Debit' application when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Debit' and 'Discover Debit'
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



## 3.3.10.43 PP.SEAS.C12-T03

PP.SEAS.C12-T03 PIN Preferring, Standard EMV Application Selection Card 12 - Test 03

Type: Contact

#### **Purpose:**

Test that when a Discover card with more than one Debit AID is inserted, the application:

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Prompts the user for Application Selection by displaying 'US Debit' and 'Discover Debit'
- 3. Allows the user to select the 'Discover Debit' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010

## Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 12
- 3. Select 'Discover Debit' application when prompted
- 4. Enter PIN ("1234") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Debit' and 'Discover Debit'
- 3. User is able to select 'Discover Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A0000001523010" AID selected was 'Discover Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.10.44 PP.SEAS.C12-T04

PP.SEAS.C12-T04 PIN Preferring, Standard EMV Application Selection Card 12 - Test 04

Type: Contact

#### **Purpose:**

Test that when a Discover card with more than one Debit AID is inserted, the application:

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Prompts the user for Application Selection by displaying 'US Debit' and 'Discover Debit'
- 3. Allows the user to select the 'Discover Debit' application
- 4. Allows the user to bypass PIN entry

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 12
- 3. Select 'Discover Debit' application when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Debit' and 'Discover Debit'
- 3. User is able to select 'Discover Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A0000001523010" AID selected was 'Discover Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



## 3.3.10.45 PP.SEAS.C12-T05

PP.SEAS.C12-T05 PIN Preferring, Standard EMV Application Selection Card 05 - Test 05

Type: Contactless

## **Purpose:**

Test that when a Discover card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010
- 4. Contactless CVM Floor limit is \$0

#### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, tap Test Card 12
- 3. Enter PIN ("1234") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.10.46 PP.SEAS.C12-T06

**PP.SEAS.C12-T06** PIN Preferring, Standard EMV Application Selection Card 12 - Test 06

Type: Contactless

#### **Purpose:**

Test that when a Discover card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Does <u>not</u> prompt for PIN as the transaction amount is under the Contactless CVM Floor Limit

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010
- 4. Contactless CVM Floor limit is above \$79

#### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, tap Test Card 12

#### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "No Signature Required" No CVM was used



## 3.3.10.47 PP.SEAS.C13-T01

PP.SEAS.C13-T01 PIN Preferring, Standard EMV Application Selection Card 13 - Test 01

Type: Contact

## **Purpose:**

Test that when a Discover card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A0000001524010

## Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 13
- 3. Enter PIN ("1234") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.10.48 PP.SEAS.C13-T02

PP.SEAS.C13-T02 PIN Preferring, Standard EMV Application Selection Card 13 - Test 02

Type: Contact

## Purpose:

Test that when a Discover card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Allows the user to bypass PIN entry

# **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A0000001524010
- 4. PIN Bypass is supported

## Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 13
- 3. When prompted for PIN, press Enter/Cancel to bypass PIN entry

## Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



## 3.3.10.49 PP.SEAS.C14-T01

PP.SEAS.C14-T01 PIN Preferring, Standard EMV Application Selection Card 14 - Test 01

Type: Contact

# **Purpose:**

Test that when a DNA card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'DNA' application
- 4. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A0000006200620

## Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 14
- 3. Enter PIN ("1234") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'DNA' application is automatically selected
- 4. The transaction is approved \*
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000006200620" AID selected was 'DNA'
  - c. "0028" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used

## **Comments:**

\* Final disposition (Approved / Declined) is outside the scope of this document. For this test case to be successful, the transaction should go online but as the cryptogram doesn't need to be valid, the host may approve or decline.



## 3.3.10.50 PP.SEAS.C15-T01

PP.SEAS.C15-T01 PIN Preferring, Standard EMV Application Selection Card 15 - Test 01

Type: Contact

## **Purpose:**

Test that when an Interac Flash card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'Interac' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A0000002771010

## Steps:

- 1. Start a Purchase transaction for \$30.00
- 2. When prompted for card entry, insert Test Card 15
- 3. Enter PIN ("1234") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Interac' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000002771010" AID selected was 'Interac'
  - c. "8644" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used

## **Comments:**

Account selection prompting (Chequing/Savings) is not a requirement for terminals deployed in the USA.



## 3.3.10.51 PP.SEAS.C16-T01

PP.SEAS.C16-T01 PIN Preferring, Standard EMV Application Selection Card 16 - Test 01

Type: Contact

## **Purpose:**

Test that when an Interac card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'Interac' application
- 4. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A0000002771010

## Steps:

- 1. Start a Purchase transaction for \$30.00
- 2. When prompted for card entry, insert Test Card 16
- 3. Enter PIN ("1234") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Interac' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000002771010" AID selected was 'Interac'
  - c. "1933" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used

## **Comments:**

Account selection prompting (Chequing/Savings) is not a requirement for terminals deployed in the USA.



## 3.3.11 Credit/Debit Prompting, Merchant Controlled Candidate List – Test Cases

#### 3.3.11.1 CD.MCCL.C01-T01

CD.MCCL.C01-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 01 - Test 01

Type: Contact

## **Purpose:**

Test that when a Visa card with more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 01
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

# **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.11.2 CD.MCCL.C01-T02

CD.MCCL.C01-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 01 - Test 02

Type: Contact

# **Purpose:**

Test that when a Visa card with more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'Visa Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

## Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 01
- 3. When prompted, select 'Credit'

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000031010" AID selected was 'Visa Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



## 3.3.11.3 CD.MCCL.C01-T03

**CD.MCCL.C01-T03** Credit/Debit Prompting, Merchant Controlled Candidate List Card 01 - Test 03

Type: Contactless

# **Purpose:**

Test that when a Visa card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840
- 4. Contactless CVM Floor limit is \$0

## Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, tap Test Card 01
- 3. Enter PIN ("1234") when prompted

## Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.11.4 CD.MCCL.C01-T04

CD.MCCL.C01-T04 Credit/Debit Prompting, Merchant Controlled Candidate List Card 01 - Test 04

Type: Contactless

# **Purpose:**

Test that when a Visa card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Does <u>not</u> prompt for PIN as the transaction amount is under the Contactless CVM Floor Limit

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840
- 4. Contactless CVM Floor limit is above \$10

## Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, tap Test Card 01

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. User is not prompted to enter a PIN
- 4. The 'US Debit' application is automatically selected
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "No signature required" No CVM was used



## 3.3.11.5 CD.MCCL.C02-T01

CD.MCCL.C02-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 02 - Test 01

Type: Contact

# **Purpose:**

Test that when a Visa card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000980840

## Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 02
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

## Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - C.
  - d. "0135" last 4 digits of the PAN
  - e. "Verified by PIN" PIN CVM was used



## 3.3.11.6 CD.MCCL.C02-T02

CD.MCCL.C02-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 02 - Test 02

Type: Contact

## **Purpose:**

Test that when a Visa card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000980840

## Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 02
- 3. When prompted, select 'Credit'

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



## 3.3.11.7 CD.MCCL.C03-T01

CD.MCCL.C03-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 03 - Test 01

Type: Contact

## **Purpose:**

Test that when a Visa card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying the following applications: 'Visa Credit' and 'Visa Debit'
- 3. Allows the user to select the 'Visa Credit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 03
- 3. When prompted, select 'Credit'

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit' and 'Visa Debit'
- 3. User is able to select 'Visa Credit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000003101001" AID selected was 'Visa Credit'
  - c. "0176" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



## 3.3.11.8 CD.MCCL.C03-T02

CD.MCCL.C03-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 03 - Test 02

Type: Contact

## **Purpose:**

Test that when a Visa card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit)
- 2. Prompts the user for Application Selection by displaying the following applications: 'Visa Credit' and 'Visa Debit'
- 3. Allows the user to select the 'Visa Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

## Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 03
- 3. When prompted, select 'Credit'

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit' and 'Visa Debit'
- 3. User is able to select 'Visa Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A00000003101002" AID selected was 'Visa Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



# 3.3.11.9 CD.MCCL.C03-T03

CD.MCCL.C03-T03 Credit/Debit Prompting, Merchant Controlled Candidate List Card 03 - Test 03

Type: Contact

## **Purpose:**

Test that when a Visa card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 03
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.11.10 CD.MCCL.C04-T01

CD.MCCL.C04-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 04 - Test 01

Type: Contact

## **Purpose:**

Test that when a Visa card with only the Interlink AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'Interlink' application
- 4. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000033010

## Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 04
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

## Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Interlink' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000033010" AID selected was 'Interlink'
  - c. "0671" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.11.11 CD.MCCL.C05-T01

CD.MCCL.C05-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 05 - Test 01

Type: Contact

## **Purpose:**

Test that when a Mastercard card with more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000042203

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 05
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.11.12 CD.MCCL.C05-T02

CD.MCCL.C05-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 05 - Test 02

Type: Contact

#### **Purpose:**

Test that when a Mastercard card with more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'Mastercard Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 05
- 3. When prompted, select 'Credit'

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Mastercard Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000041010" AID selected was 'Mastercard Debit'
  - c. "9130" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



## 3.3.11.13 CD.MCCL.C05-T03

**CD.MCCL.C05-T03** Credit/Debit Prompting, Merchant Controlled Candidate List Card 05 - Test 03

Type: Contactless

#### **Purpose:**

Test that when a Mastercard card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000042203
- 4. Contactless CVM Floor limit is \$0

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, tap Test Card 05
- 3. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.11.14 CD.MCCL.C05-T04

CD.MCCL.C05-T04 Credit/Debit Prompting, Merchant Controlled Candidate List Card 05 - Test 04

Type: Contactless

#### **Purpose:**

Test that when a Mastercard card with more than one Debit AID is tapped, the application:

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Does <u>not</u> prompt for PIN as the transaction amount is under the Contactless CVM Floor Limit

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000042203
- 4. Contactless CVM Floor limit is above \$10

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, tap Test Card 05

#### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. User is not prompted to enter a PIN
- 4. The 'US Maestro' application is automatically selected
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "No signature required" No CVM was used



#### 3.3.11.15 CD.MCCL.C06-T01

CD.MCCL.C06-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 06 - Test 01

Type: Contact

## **Purpose:**

Test that when a Maestro card with more than one Maestro AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'Maestro1' and 'Maestro2'
- 3. Allows the user to select the 'Maestro1' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000043060

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 06
- 3. When prompted, select 'Debit'
- 4. Select 'Maestro1' application when prompted
- 5. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- 3. User is able to select 'Maestro1'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000043060D0561111" AID selected was 'Maestro1'
  - c. "2010" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.11.16 CD.MCCL.C06-T02

CD.MCCL.C06-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 06 - Test 02

Type: Contact

#### **Purpose:**

Test that when a Maestro card with more than one Maestro AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'Maestro1' and 'Maestro2'
- 3. Allows the user to select the 'Maestro2' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 1. Terminal supports the following AID: A000000043060

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 06
- 3. When prompted, select 'Debit'
- 4. Select 'Maestro2' application when prompted
- 5. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- 3. User is able to select 'Maestro2'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000043060D0562222" AID selected was 'Maestro2'
  - c. "2028" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.11.17 CD.MCCL.C07-T01

CD.MCCL.C07-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 07 - Test 01

Type: Contact

## **Purpose:**

Test that when a Mastercard card with a Credit AID and a Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying 'Mastercard' and 'Maestro'
- 3. Allows the user to select the 'Mastercard' application
- 4. Uses Signature/No CVM as the CVM for the transaction

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 07
- 3. When prompted, select 'Credit'
- 4. Select 'Mastercard' application when prompted

# **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard'
  - c. "0060" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



## 3.3.11.18 CD.MCCL.C07-T02

CD.MCCL.C07-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 07 - Test 02

Type: Contact

## **Purpose:**

Test that when a Mastercard card with a Credit AID and a Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'Mastercard' and 'Maestro'
- 3. Allows the user to select the 'Mastercard' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 07
- 3. When prompted, select 'Debit'
- 4. Select 'Mastercard' application when prompted
- 5. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard'
  - c. "0060" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.11.19 CD.MCCL.C07-T03

CD.MCCL.C07-T03 Credit/Debit Prompting, Merchant Controlled Candidate List Card 07 - Test 03

Type: Contact

## **Purpose:**

Test that when a Mastercard card with a Credit AID and a Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'Mastercard' and 'Maestro'
- 3. Allows the user to select the 'Maestro' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 07
- 3. When prompted, select 'Debit'
- 4. Select 'Maestro' application when prompted
- 5. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 3. User is able to select 'Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000043060" AID selected was 'Maestro'
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.11.20 CD.MCCL.C08-T01

CD.MCCL.C08-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 08 - Test 01

Type: Contact

## **Purpose:**

Test that when a U.S. Maestro card with more than one U.S. Maestro AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Gives an error for an 'Empty Candidate List' outcome.

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000042203

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. When prompted, select 'Credit'

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted with an error message relevant for an 'Empty Candidate List' outcome
- 3. The transaction is not processed as a chip transaction

## **Comments:**

Fallback processing is out of scope of this test plan



## 3.3.11.21 CD.MCCL.C08-T02

CD.MCCL.C08-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 08 - Test 02

Type: Contact

## **Purpose:**

Test that when a U.S. Maestro card with more than one U.S. Maestro AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings' only
- 3. Allows the user to select the 'US Checking' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000042203

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. When prompted, select 'Debit'
- 4. Select 'US Checking' application when prompted
- 5. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203D0561111" AID selected was 'US Checking'
  - c. "9007" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.11.22 CD.MCCL.C08-T03

CD.MCCL.C08-T03 Credit/Debit Prompting, Merchant Controlled Candidate List Card 08 - Test 03

Type: Contact

## **Purpose:**

Test that when a U.S. Maestro card with more than one U.S. Maestro AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings' only
- 3. Allows the user to select the 'US Savings' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000042203

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. When prompted, select 'Debit'
- 4. Select 'US Savings' application when prompted
- 5. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203D0562222" AID selected was 'US Savings'
  - c. "9015" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.11.23 CD.MCCL.C09-T01

CD.MCCL.C09-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 09 - Test 01

Type: Contact

## **Purpose:**

Test that when a Mastercard card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying the following applications: 'Mastercard' and 'Maestro'
- 3. Allows the user to select the 'Mastercard' application
- 4. Uses Signature/No CVM as the CVM for the transaction

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 3. When prompted, select 'Credit'

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard' and 'Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard'
  - c. "0060" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



#### 3.3.11.24 CD.MCCL.C09-T02

CD.MCCL.C09-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 09 - Test 02

Type: Contact

#### **Purpose:**

Test that when a Mastercard card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Prompts the user to enter a PIN

## **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("4315") when prompted

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.11.25 CD.MCCL.C10-T01

CD.MCCL.C10-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 10 - Test 01

Type: Contact

# **Purpose:**

Test that when a Mastercard card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000042203

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 10
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("4315") when prompted

## Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



## 3.3.11.26 CD.MCCL.C10-T02

CD.MCCL.C10-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 10 - Test 02

Type: Contact

# **Purpose:**

Test that when a Mastercard card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Uses Signature/No CVM as the CVM for the transaction

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000042203

## Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 10
- 3. When prompted, select 'Credit'

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



## 3.3.11.27 CD.MCCL.C11-T01

CD.MCCL.C11-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 11 - Test 01

Type: Contact

## **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying 'Mastercard Debit' and 'Maestro' only
- 3. Allows the user to select the 'Mastercard Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. When prompted, select 'Credit'
- 4. Select 'Mastercard Debit' application when prompted

## **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard Debit' and 'Maestro' only
- 3. User is able to select 'Mastercard Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000041010" AID selected was 'Mastercard Debit'
  - c. "0060" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



### 3.3.11.28 CD.MCCL.C11-T02

**CD.MCCL.C11-T02** Credit/Debit Prompting, Merchant Controlled Candidate List Card 11 - Test 02

Type: Contact

#### **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings' only
- 3. Allows the user to select the 'US Checking' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. When prompted, select 'Debit'
- 4. Select 'US Checking' application when prompted
- 5. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A00000004220301" AID selected was 'US Checking'
  - c. "0060" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.11.29 CD.MCCL.C11-T03

**CD.MCCL.C11-T03** Credit/Debit Prompting, Merchant Controlled Candidate List Card 11 - Test 03

Type: Contact

#### **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying 'Mastercard Debit' and 'Maestro' only
- 3. Allows the user to select the 'Maestro' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. When prompted, select 'Credit'
- 4. Select 'Maestro' application when prompted
- 5. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard Debit' and 'Maestro' only
- 3. User is able to select 'Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000043060" AID selected was 'Maestro'
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.11.30 CD.MCCL.C11-T04

**CD.MCCL.C11-T04** Credit/Debit Prompting, Merchant Controlled Candidate List Card 11 - Test 04

Type: Contact

#### **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings' only
- 3. Allows the user to select the 'US Savings' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. When prompted, select 'Debit'
- 4. Select 'US Savings' application when prompted
- 5. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A00000004220302" AID selected was 'US Savings'
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.11.31 CD.MCCL.C12-T01

CD.MCCL.C12-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 12 - Test 01

Type: Contact

### **Purpose:**

Test that when a Discover card with more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010

### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 12
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.11.32 CD.MCCL.C12-T02

**CD.MCCL.C12-T02** Credit/Debit Prompting, Merchant Controlled Candidate List Card 12 - Test 02

Type: Contact

### **Purpose:**

Test that when a Discover card with more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'Discover Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010

### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 12
- 3. When prompted, select 'Credit'

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Discover Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000001523010" AID selected was 'Discover Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



### 3.3.11.33 CD.MCCL.C13-T01

CD.MCCL.C13-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 13 - Test 01

Type: Contact

# **Purpose:**

Test that when a Discover card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A0000001524010

### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 13
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

### Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.11.34 CD.MCCL.C13-T02

CD.MCCL.C13-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 13 - Test 02

Type: Contact

# **Purpose:**

Test that when a Discover card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A0000001524010

### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 13
- 3. When prompted, select 'Credit'

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



### 3.3.11.35 CD.MCCL.C14-T01

CD.MCCL.C14-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 14 - Test 01

Type: Contact

# **Purpose:**

Test that when a DNA card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'DNA' application
- 4. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A0000006200620

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 14
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

### Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'DNA' application is automatically selected
- 4. The transaction is approved \*
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000006200620" AID selected was 'DNA'
  - c. "0028" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used

### **Comments:**

\* Final disposition (Approved / Declined) is outside the scope of this document. For this test case to be successful, the transaction should go online but as the cryptogram doesn't need to be valid, the host may approve or decline.



### 3.3.11.36 CD.MCCL.C15-T01

CD.MCCL.C15-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 15 - Test 01

Type: Contact

### **Purpose:**

Test that when an Interac Flash card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'Interac' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A0000002771010

### Steps:

- 1. Start a Purchase transaction for \$30.00
- 2. When prompted for card entry, insert Test Card 15
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Interac' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000002771010" AID selected was 'Interac'
  - c. "8644" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used

### **Comments:**

Account selection prompting (Chequing/Savings) is not a requirement for terminals deployed in the USA.



### 3.3.11.37 CD.MCCL.C16-T01

CD.MCCL.C16-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 16 - Test 01

Type: Contact

# **Purpose:**

Test that when an Interac card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'Interac' application
- 4. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A0000002771010

### Steps:

- 1. Start a Purchase transaction for \$30.00
- 2. When prompted for card entry, insert Test Card 16
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

### Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Interac' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000002771010" AID selected was 'Interac'
  - c. "1933" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used

### **Comments:**

Account selection prompting (Chequing/Savings) is not a requirement for terminals deployed in the USA.



### 3.3.12 Credit/Debit Selection, Standard EMV Application Selection – Test Cases

#### 3.3.12.1 CD.SEAS.C01-T01

CD.SEAS.C01-T01 Credit/Debit Prompting, Standard EMV Application Selection Card 01 - Test 01

# Type: Contact

### **Purpose:**

Test that when a Visa card with more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- Prompts the user for Application Selection by displaying 'Visa Debit' and 'US Debit'
- 3. Allows the user to select the 'Visa Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 01
- 3. When prompted, select 'Credit'

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Visa Debit' and 'US Debit'
- 3. User is able to select 'Visa Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000031010" AID selected was 'Visa Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



### 3.3.12.2 CD.SEAS.C01-T02

CD.SEAS.C01-T02 Credit/Debit Prompting, Standard EMV Application List Card 01 - Test 02

Type: Contact

### **Purpose:**

Test that when a Visa card with more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'Visa Debit' and 'US Debit'
- 3. Allows the user to select the 'US Debit' application
- 4. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 01
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Visa Debit' and 'US Debit'
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.12.3 CD.SEAS.C01-T03

CD.SEAS.C01-T03 Credit/Debit Prompting, Standard EMV Application List Card 01 - Test 03

Type: Contactless

# **Purpose:**

Test that when a Visa card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'Visa Debit' application
- 4. Uses Signature as the CVM for the transaction

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A000000980840
- 4. Contactless CVM Floor limit is \$0

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, tap Test Card 01

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000031010" AID selected was 'Visa Debit'
  - c.
  - d. "0135" last 4 digits of the PAN
  - e. "Signature panel" Signature CVM was used



### 3.3.12.4 CD.SEAS.C01-T04

CD.SEAS.C01-T04 Credit/Debit Prompting, Standard EMV Application Selection Card 01 - Test 04

Type: Contactless

# **Purpose:**

Test that when a Visa card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'Visa Debit' application
- 4. Does <u>not</u> require a Signature as the transaction amount is under the Contactless CVM Floor Limit

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A000000980840
- 4. Contactless CVM Floor limit is above \$10

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, tap Test Card 01

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000031010" AID selected was 'Visa Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "No Signature Required" No CVM was used



### 3.3.12.5 CD.SEAS.C02-T01

CD.SEAS.C02-T01 Credit/Debit Prompting, Standard EMV Application Selection Card 02 - Test 01

Type: Contact

# **Purpose:**

Test that when a Visa card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000980840

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 02
- 3. Enter PIN ("1234") when prompted

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.12.6 CD.SEAS.C02-T02

CD.SEAS.C02-T02 Credit/Debit Prompting, Standard EMV Application Selection Card 02 - Test 02

Type: Contact

# **Purpose:**

Test that when a Visa card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000980840

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 02
- 3. When prompted, select 'Credit'

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. "0135" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



### 3.3.12.7 CD.SEAS.C03-T01

CD.SEAS.C03-T01 Credit/Debit Prompting, Standard EMV Application Selection Card 03 - Test 01

Type: Contact

### **Purpose:**

Test that when a Visa card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. Allows the user to select the 'Visa Credit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 03
- 3. When prompted, select 'Credit'

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. User is able to select 'Visa Credit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000003101001" AID selected was 'Visa Credit'
  - c. '0176' last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



### 3.3.12.8 CD.SEAS.C03-T02

CD.SEAS.C03-T02 Credit/Debit Prompting, Standard EMV Application List Card 03 - Test 02

Type: Contact

### **Purpose:**

Test that when a Visa card with a Credit and more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. Allows the user to select the 'Visa Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 03
- 3. When prompted, select 'Credit'
- 4. Select 'Visa Debit' application when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. User is able to select 'Visa Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000003101002" AID selected was 'Visa Debit'
  - c. '0135' last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



### 3.3.12.9 CD.SEAS.C03-T03

CD.SEAS.C03-T03 Credit/Debit Prompting, Standard EMV Application Selection Card 03 - Test 03

Type: Contact

### **Purpose:**

Test that when a Visa card with a Credit and more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. Allows the user to select the 'US Debit' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 03
- 3. When prompted, select 'Debit'
- 4. Select 'US Debit' application when prompted
- 5. Enter PIN ("1234") when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000980840" AID selected was 'US Debit'
  - c. '0135 last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.12.10 CD.SEAS.C04-T01

CD.SEAS.C04-T01 Credit/Debit Prompting, Standard EMV Application Selection Card 04 - Test 01

Type: Contact

# **Purpose:**

Test that when a Visa card with only the Interlink AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'Interlink' application
- 4. Prompts the user to enter a PIN

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000033010

### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 04
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

### Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Interlink' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000033010" AID selected was 'Interlink'
  - c. "0671" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.12.11 CD.SEAS.C05-T01

CD.SEAS.C05-T01 Credit/Debit Prompting, Standard EMV Application List Card 05 - Test 01

Type: Contact

#### **Purpose:**

Test that when a Mastercard card with more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying 'Mastercard Debit' and 'US Maestro'
- 3. Allows the user to select the 'Mastercard Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000042203

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 05
- 3. When prompted, select 'Credit'
- 4. Select 'Mastercard' application when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard Debit' and 'US Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard Debit'

C.

- d. "9130" last 4 digits of the PAN
- e. "Signature panel" or "No signature required" Signature or No CVM was used



### 3.3.12.12 CD.SEAS.C05-T02

CD.SEAS.C05-T02 Credit/Debit Prompting, Standard EMV Application List Card 05 - Test 02

Type: Contact

#### **Purpose:**

Test that when a Mastercard card with more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'Mastercard Debit' and 'US Maestro'
- 3. Allows the user to select the 'US Maestro' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 05
- 3. When prompted, select 'Debit'
- 4. Select 'US Maestro' application when prompted
- 5. Enter PIN ("4315") when prompted

### Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard Debit' and 'US Maestro'
- 3. User is able to select 'US Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.12.13 CD.SEAS.C05-T03

CD.SEAS.C05-T03 Credit/Debit Prompting, Standard EMV Application Selection Card 05 - Test 03

Type: Contactless

#### **Purpose:**

Test that when a Mastercard card with more than one Debit AID is tapped, the application:

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'Mastercard Debit' application
- 4. Uses Signature as the CVM for the transaction

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000042203
- 4. Contactless CVM Floor limit is \$0

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, tap Test Card 05

### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Mastercard Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000041010" AID selected was 'Mastercard Debit'
  - c. "9130" last 4 digits of the PAN
  - d. "Signature Panel" Signature CVM was used



### 3.3.12.14 CD.SEAS.C05-T04

CD.SEAS.C05-T04 Credit/Debit Prompting, Standard EMV Application Selection Card 05 - Test 04

Type: Contactless

#### **Purpose:**

Test that when a Mastercard card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'Mastercard Debit' application
- 4. Does <u>not</u> require a Signature as the transaction amount is under the Contactless CVM Floor Limit

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000042203
- 4. Contactless CVM Floor limit is above \$20

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, tap Test Card 05

#### **Pass Criteria:**

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Mastercard Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A000000041010" AID selected was 'Mastercard Debit'
  - c. "9130" last 4 digits of the PAN
  - d. "No Signature Required" No CVM was used



### 3.3.12.15 CD.SEAS.C06-T01

CD.SEAS.C06-T01 Credit/Debit Prompting, Standard EMV Application List Card 06 - Test 01

Type: Contact

#### **Purpose:**

Test that when a Maestro card with more than one Maestro AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'Maestro1' and 'Maestro2'
- 3. Allows the user to select the 'Maestro1' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000043060

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 06
- 3. When prompted, select 'Debit'
- 4. Select 'Maestro1' application when prompted
- 5. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- 3. User is able to select 'Maestro1'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000043060D0561111" AID selected was 'Maestro1'
  - c. "2010" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.12.16 CD.SEAS.C06-T02

CD.SEAS.C06-T02 Credit/Debit Prompting, Standard EMV Application List Card 06 - Test 02

Type: Contact

#### **Purpose:**

Test that when a Maestro card with more than one Maestro AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'Maestro1' and 'Maestro2'
- 3. Allows the user to select the 'Maestro2' application

Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000043060

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 06
- 3. When prompted, select 'Debit'
- 4. Select 'Maestro2' application when prompted
- 5. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- 3. User is able to select 'Maestro2'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000043060D0562222" AID selected was 'Maestro2'
  - c. "2028" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.12.17 CD.SEAS.C07-T01

CD.SEAS.C07-T01 Credit/Debit Prompting, Standard EMV Application List Card 07 - Test 01

Type: Contact

### **Purpose:**

Test that when a Mastercard card with a Credit AID and a Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying 'Mastercard' and 'Maestro'
- 3. Allows the user to select the 'Mastercard' application
- 4. Uses Signature/No CVM as the CVM for the transaction

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 07
- 3. When prompted, select 'Credit'
- 4. Select 'Mastercard' application when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard'
  - c. "0060" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



### 3.3.12.18 CD.SEAS.C07-T02

CD.SEAS.C07-T02 Credit/Debit Prompting, Standard EMV Application List Card 07 - Test 02

Type: Contact

### **Purpose:**

Test that when a Mastercard card with a Credit AID and a Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'Mastercard' and 'Maestro'
- 3. Allows the user to select the 'Mastercard' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 07
- 3. When prompted, select 'Debit'
- 4. Select 'Mastercard' application when prompted
- 5. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard'
  - c. "0060" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.12.19 CD.SEAS.C07-T03

CD.SEAS.C07-T03 Credit/Debit Prompting, Standard EMV Application List Card 07 - Test 03

Type: Contact

### **Purpose:**

Test that when a Mastercard card with a Credit AID and a Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'Mastercard' and 'Maestro'
- 3. Allows the user to select the 'Maestro' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 07
- 3. When prompted, select 'Debit'
- 4. Select 'Maestro' application when prompted
- 5. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 3. User is able to select 'Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000043060" AID selected was 'Maestro'
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.12.20 CD.SEAS.C08-T01

CD.SEAS.C08-T01 Credit/Debit Prompting, Standard EMV Application Selection Card 08 - Test 01

Type: Contact

### **Purpose:**

Test that when a U.S. Maestro card with more than one U.S. Maestro AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings'
- 3. Allows the user to select the 'US Checking' application
- 4. Uses Signature/No CVM as the CVM for the transaction

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000042203

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. When prompted, select 'Credit'
- 4. Select 'US Checking' application when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203D0561111" AID selected was 'US Checking'
  - c. "9007" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



### 3.3.12.21 CD.SEAS.C08-T02

CD.SEAS.C08-T02 Credit/Debit Prompting, Standard EMV Application Selection Card 08 - Test 02

Type: Contact

### **Purpose:**

Test that when a Mastercard card with more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings'
- 3. Allows the user to select the 'US Checking' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000042203

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. When prompted, select 'Debit'
- 4. Select 'US Checking' application when prompted
- 5. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203D0561111" AID selected was 'US Checking'
  - c. "9007" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.12.22 CD.SEAS.C08-T03

CD.SEAS.C08-T03 Credit/Debit Prompting, Standard EMV Application Selection Card 08 - Test 03

Type: Contact

### **Purpose:**

Test that when a U.S. Maestro card with more than one U.S. Maestro AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings'
- 3. Allows the user to select the 'US Savings' application
- 4. Uses Signature/No CVM as the CVM for the transaction

# **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000042203

### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. When prompted, select 'Credit'
- 4. Select 'US Savings' application when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203D0562222" AID selected was 'US Savings'
  - c. "9015" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



#### 3.3.12.23 CD.SEAS.C08-T04

CD.SEAS.C08-T04 Credit/Debit Prompting, Standard EMV Application Selection Card 08 - Test 04

Type: Contact

#### **Purpose:**

Test that when a Mastercard card with more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'US Checking' and 'US Savings'
- 3. Allows the user to select the 'US Savings' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. When prompted, select 'Debit'
- 4. Select 'US Savings' application when prompted
- 5. Enter PIN ("4315") when prompted

### Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203D0562222" AID selected was 'US Savings'
  - c. "9015" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.12.24 CD.SEAS.C09-T01

**CD.MCCL.C09-T01** Credit/Debit Prompting, Standard EMV Application Selection Card 09 - Test 01

Type: Contact

### **Purpose:**

Test that when a Mastercard card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. Allows the user to select the 'Mastercard' application
- 4. Uses Signature/No CVM as the CVM for the transaction

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 3. When prompted, select 'Credit'
- 4. Select 'Mastercard' application when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard'
  - c. "0060" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



#### 3.3.12.25 CD.SEAS.C09-T02

CD.SEAS.C09-T02 Credit/Debit Prompting, Standard EMV Application Selection Card 09 - Test 02

Type: Contact

### **Purpose:**

Test that when a Mastercard card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. Allows the user to select the 'Maestro' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 3. When prompted, select 'Debit'
- 4. Select 'Maestro' application when prompted
- 5. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000043060" AID selected was 'Maestro'
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.12.26 CD.SEAS.C09-T03

CD.SEAS.C09-T03 Credit/Debit Prompting, Standard EMV Application Selection Card 09 - Test 03

Type: Contact

### **Purpose:**

Test that when a Mastercard card with a Credit AID and more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. Allows the user to select the 'US Maestro' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 3. When prompted, select 'Debit'
- 4. Select 'US Maestro' application when prompted
- 5. Enter PIN ("4315") when prompted

### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'US Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



### 3.3.12.27 CD.SEAS.C10-T01

CD.SEAS.C10-T01 Credit/Debit Prompting, Standard EMV Application Selection Card 10 - Test 01

Type: Contact

### **Purpose:**

Test that when a Mastercard card with only one Debit AID is inserted, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 10
- 3. Enter PIN ("4315") when prompted

#### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.12.28 CD.SEAS.C10-T02

CD.SEAS.C10-T02 Credit/Debit Prompting, Standard EMV Application Selection Card 10 - Test 02

Type: Contact

#### **Purpose:**

Test that when a Mastercard card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Uses Signature/No CVM as the CVM for the transaction

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 10
- 3. When prompted, select 'Credit'

#### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000000042203" AID selected was 'US Maestro'
  - c. "9130" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



#### 3.3.12.29 CD.SEAS.C11-T01

CD.SEAS.C11-T01 Credit/Debit Prompting, Standard EMV Application Selection Card 11 - Test 01

Type: Contact

#### **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. Allows the user to select the 'Mastercard Debit' application
- 4. Prompts the user to enter a PIN

#### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. When prompted, select 'Debit'
- 4. Select 'Mastercard Debit' application when prompted
- 5. Enter PIN ("4315") when prompted

#### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'Mastercard Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard Debit'
  - c. "0060" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.12.30 CD.SEAS.C11-T02

CD.SEAS.C11-T02 Credit/Debit Prompting, Standard EMV Application Selection Card 11 - Test 02

Type: Contact

#### **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. Allows the user to select the 'Mastercard Debit' application
- 4. Allows the user to bypass PIN entry

#### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. When prompted, select 'Credit'
- 4. Select 'Mastercard Debit' application when prompted
- 5. When prompted for PIN, press Enter/Cancel to bypass PIN entry

#### Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'Mastercard Debit'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000041010" AID selected was 'Mastercard Debit'
  - c. "0060" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



#### 3.3.12.31 CD.SEAS.C11-T03

CD.SEAS.C11-T03 Credit/Debit Prompting, Standard EMV Application Selection Card 11 - Test 03

Type: Contact

#### **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. Allows the user to select the 'US Checking' application
- 4. Prompts the user to enter a PIN

#### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. When prompted, select 'Debit'
- 4. Select 'US Checking' application when prompted
- 5. Enter PIN ("4315") when prompted

#### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000004220301" AID selected was 'US Checking'
  - c. "0060" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.12.32 CD.SEAS.C11-T04

CD.SEAS.C11-T04 Credit/Debit Prompting, Standard EMV Application Selection Card 11 - Test 04

Type: Contact

#### Purpose:

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. Allows the user to select the 'US Checking' application
- 4. Allows the user to bypass PIN entry

#### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. When prompted, select 'Credit'
- 4. Select 'US Checking' application when prompted
- 5. When prompted for PIN, press Enter/Cancel to bypass PIN entry

#### Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000004220301" AID selected was 'US Checking'
  - c. "0060" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



#### 3.3.12.33 CD.SEAS.C11-T05

CD.SEAS.C11-T05 Credit/Debit Prompting, Standard EMV Application Selection Card 11 - Test 05

Type: Contact

#### **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. Allows the user to select the 'Maestro' application
- 4. Prompts the user to enter a PIN

#### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. When prompted, select 'Debit'
- 4. Select 'Maestro' application when prompted
- 5. Enter PIN ("4315") when prompted

#### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A000000043060" AID selected was 'Maestro'
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.12.34 CD.SEAS.C11-T06

**CD.SEAS.C11-T06** Credit/Debit Prompting, Standard EMV Application Selection Card 11 - Test 06

Type: Contact

#### **Purpose:**

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. Allows the user to select the 'US Savings' application
- 4. Prompts the user to enter a PIN

#### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. When prompted, select 'Debit'
- 4. Select 'US Savings' application when prompted
- 5. Enter PIN ("4315") when prompted

#### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000004220302" AID selected was 'US Savings'
  - c. "0051" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.12.35 CD.SEAS.C11-T07

CD.SEAS.C11-T07 Credit/Debit Prompting, Standard EMV Application Selection Card 11 - Test 07

Type: Contact

#### Purpose:

Test that when a Mastercard Debit card with 2 pairs of U.S. Debit AIDs is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. Allows the user to select the 'US Savings' application
- 4. Allows the user to bypass PIN entry

#### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

#### Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. When prompted, select 'Credit'
- 4. Select 'US Savings' application when prompted
- 5. When prompted for PIN, press Enter/Cancel to bypass PIN entry

#### Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'US Savings'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A00000004220302" AID selected was 'US Savings'
  - c. "0051" last 4 digits of the PAN
  - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



#### 3.3.12.36 CD.SEAS.C12-T01

CD.SEAS.C12-T01 Credit/Debit Prompting, Standard EMV Application List Card 12 - Test 01

Type: Contact

#### **Purpose:**

Test that when a Discover card with more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Prompts the user for Application Selection by displaying 'US Debit' and 'Discover Debit'
- 3. Allows the user to select the 'Discover Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010

#### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 12
- 3. When prompted, select 'Credit'
- 4. Select 'Discover Debit' application when prompted

#### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Debit' and 'Discover Debit'
- 3. User is able to select 'Discover Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A0000001523010" AID selected was 'Discover Debit'
  - c. "0005" last 4 digits of the PAN
  - d. Signature panel" or "No signature required" Signature or No CVM was used



#### 3.3.12.37 CD.SEAS.C12-T02

CD.SEAS.C12-T02 Credit/Debit Prompting, Standard EMV Application List Card 12 - Test 02

Type: Contact

#### **Purpose:**

Test that when a Discover card with more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'US Debit' and 'Discover Debit'
- 3. Allows the user to select the 'US Debit' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010

#### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 12
- 3. When prompted, select 'Debit'
- 4. Select 'US Debit' application when prompted
- 5. Enter PIN ("1234") when prompted

#### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Debit' and 'Discover Debit'
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.12.38 CD.SEAS.C12-T03

CD.SEAS.C12-T03 Credit/Debit Prompting, Standard EMV Application List Card 12 - Test 03

Type: Contact

#### **Purpose:**

Test that when a Discover card with more than one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying 'US Debit' and 'Discover Debit'
- 3. Allows the user to select the 'Discover Debit' application
- 4. Prompts the user to enter a PIN

#### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010

#### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 12
- 3. When prompted, select 'Debit'
- 4. Select 'Discover Debit' application when prompted
- 5. Enter PIN ("1234") when prompted

#### Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Debit' and 'Discover Debit'
- 3. User is able to select 'Discover Debit'
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates card was inserted
  - b. "A0000001523010" AID selected was 'Discover Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.12.39 CD.SEAS.C12-T04

CD.SEAS.C12-T04 Credit/Debit Prompting, Standard EMV Application List Card 12 - Test 04

Type: Contactless

#### Purpose:

Test that when a Discover card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

#### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010
- 4. Contactless CVM Floor limit is \$0

#### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, tap Test Card 12
- 3. Enter PIN ("1234") when prompted

#### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.12.40 CD.SEAS.C12-T05

CD.SEAS.C12-T05 Credit/Debit Prompting, Standard EMV Application List Card 12 - Test 05

Type: Contactless

#### **Purpose:**

Test that when a Discover card with more than one Debit AID is tapped, the application:

- 1. Does not prompt for Credit or Debit
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Does <u>not</u> prompt for PIN as the transaction amount is under the Contactless CVM Floor Limit

#### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010
- 4. Contactless CVM Floor limit is above \$79

#### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, tap Test Card 12

#### **Pass Criteria:**

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. User is not prompted to enter a PIN
- 4. The 'US Debit' application is automatically selected
- 5. The transaction is approved
- 6. Receipt shows:
  - a. "Contactless" indicates card was tapped
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "No signature required" No CVM was used



### 3.3.12.41 CD.SEAS.C13-T01

CD.SEAS.C13-T01 Credit/Debit Prompting, Standard EMV Application List Card 13 - Test 01

Type: Contact

### **Purpose:**

Test that when a Discover card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A0000001524010

#### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 13
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

#### Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used



#### 3.3.12.42 CD.SEAS.C13-T02

CD.SEAS.C13-T02 Credit/Debit Prompting, Standard EMV Application List Card 13 - Test 02

Type: Contact

#### **Purpose:**

Test that when a Discover card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Credit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A0000001524010

#### Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, insert Test Card 13
- 3. When prompted, select 'Credit'

#### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000001524010" AID selected was 'US Debit'
  - c. "0005" last 4 digits of the PAN
  - d. "Signature panel" or "No signature required" Signature or No CVM was used



#### 3.3.12.43 CD.SEAS.C14-T01

CD.SEAS.C14-T01 Credit/Debit Prompting, Standard EMV Application List Card 14 - Test 01

Type: Contact

### **Purpose:**

Test that when a DNA card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'DNA' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A0000006200620

#### Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 14
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

#### Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'DNA' application is automatically selected
- 4. The transaction is approved \*
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A000006200620" AID selected was 'DNA'
  - c. "0028" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used

#### **Comments:**

\* Final disposition (Approved / Declined) is outside the scope of this document. For this test case to be successful, the transaction should go online but as the cryptogram doesn't need to be valid, the host may approve or decline.



#### 3.3.12.44 CD.SEAS.C15-T01

CD.SEAS.C15-T01 Credit/Debit Prompting, Standard EMV Application List Card 15 - Test 01

Type: Contact

#### **Purpose:**

Test that when an Interac Flash card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'Interac' application
- 4. Prompts the user to enter a PIN

#### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A0000002771010

#### Steps:

- 1. Start a Purchase transaction for \$30.00
- 2. When prompted for card entry, insert Test Card 15
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

#### **Pass Criteria:**

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Interac' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000002771010" AID selected was 'Interac'
  - c. "8644" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used

#### **Comments:**

Account selection prompting (Chequing/Savings) is not a requirement for terminals deployed in the USA.



#### 3.3.12.45 CD.SEAS.C16-T01

CD.SEAS.C16-T01 Credit/Debit Prompting, Standard EMV Application List Card 16 - Test 01

Type: Contact

### **Purpose:**

Test that when an Interac card with only one Debit AID is inserted, the application:

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'Interac' application
- 4. Prompts the user to enter a PIN

### **Pre-Requisites:**

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A0000002771010

#### Steps:

- 1. Start a Purchase transaction for \$30.00
- 2. When prompted for card entry, insert Test Card 16
- 3. When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

#### Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Interac' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
  - a. "Chip" indicates the card was inserted
  - b. "A0000002771010" AID selected was 'Interac'
  - c. "1933" last 4 digits of the PAN
  - d. "Verified by PIN" PIN CVM was used

#### **Comments:**

Account selection prompting (Chequing/Savings) is not a requirement for terminals deployed in the USA.



# Chapter 4 - UL USA Debit EMV Test Card Set Profiles

#### CAUTION

Multiple consecutive incorrect PIN entry attempts may result in the card being blocked. This is known as being 'PIN Blocked'. If this occurs, it will no longer be possible to enter an Offline PIN,

which will cause all future transactions to be declined.

\*\*\* It is not possible to unblock a 'PIN Blocked' card \*\*\*

#### NOTICE

Interac Flash cards have a '1xxxxx' BIN range. These cards are supported by all Canadian processors but are not yet supported by all U.S. and international processors.

\*\*\* Check with your acquirer account representative to determine if the Interac Flash BIN range is supported by their development host. If your processor does not yet support Interac Flash, the card will function properly at the POS but it will not obtain a host approval. \*\*\*

This Test Card Set contains 16 cards with at least one card from each of the following card brands.

DISCOVER	Interac .	mastercard	VISA	
----------	-----------	------------	------	--

	Test Card 01	Test Card 02	Test Card 03
Brand	Visa	Visa	Visa
Description (Card - Types)	Global / U.S. Common	U.S. Common	Credit / Debit / U.S. Common, Dual- Funding
AID list	A000000031010 A000000980840	A000000980840	A00000003101001 A00000003101002 A0000000980840
PAN on plastic	4761 7390 0101 0135	4761 7390 0101 0135	4761 7390 0101 0176
Expiry Date	12/2022	12/2022	12/2022
Service Code	201	201	201
Interface	Contact, Contactless, MSR	Contact, MSR	Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	\$10.00	\$10.00	\$10.00
Issuer Country Code	840 - USA	840 - USA	840 - USA
Application Currency Code	840 - USD	840 - USD	840 - USD
Language	'en' - English	'en' - English	ʻen' - English
Card Version	v4.0	v4.0	v6.0



	Test Card 04	Test Card 05	Test Card 06
Brand	Visa	Mastercard	Mastercard
Description (Card + types)	Interlink	Global / Common	Maestro Dual-Funding
AID list	A000000033010	A0000000041010 A0000000042203	A000000043060 D0561111 A000000043060 D05621222
PAN on plastic	4761 7390 0101 0671	5413 3300 8909 9130	5413 3300 0000 2010
Expiry Date	12/2022	12/2022	12/2022
Service Code	201	201	220
Interface	Contact, MSR	Contact, Contactless, MSR	Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	\$10.00	\$20.00	\$20.00
Issuer Country Code	840 - USA	840 - USA	840 - USA
Application Currency Code	840 - USD	840 - USD	840 - USD
Language	'en' - English	'en' - English	'en' - English
Card Version	v4.0	v4.0	v4.0

	Test Card 07	Test Card 08	Test Card 09
Brand Mastercard		Mastercard	Mastercard
Description	Credit / Int'l	U.S. Maestro - Dual- Funding	Credit / Global / U.S. Common
AID list A000000041010 A0000000043060		A0000000042203 D0561111 A0000000042203 D0562222	A0000000041010 A0000000043060 A0000000042203
PAN on plastic	5413 3300 8902 0060	5413 3300 8909 9007	5413 3300 8902 0060
Expiry Date	12/2022	12/2022	12/2022
Service Code	201	220	201
Interface	Contact, MSR	Contact, MSR	Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	\$20.00	\$20.00	\$20.00
Issuer Country Code	826 - GBR	840 - USA	840 - USA
Application Currency Code	826 - GBP	840 - USD	840 - USD
Language	Language 'en' - English		'en' - English
Card Version	v4.0	v4.0	v4.0



	Test Card 10	Test Card 11	Test Card 12
Brand	Mastercard	Mastercard	Discover
Description	U.S. Maestro	MC+U.S. Maestro / Maestro+U.S. Maestro	Discover U.S. Debit / Discover
AID list	A0000000042203	A0000000041010 A000000004220301 A0000000043060 A000000004220302	A0000001524010 A0000001523010
PAN on plastic	5413 3300 8909 9130	5413 3300 8909 0060	6011 9737 0000 0005
Expiry Date	12/2022	12/2022	12/2023
Service Code	201	201	201
Interface	Contact, MSR	Contact, MSR	Contactless, Contact, MSR
СЛМ	See card definition	See card definition	See card definition
Approval Amount	\$20.00	\$20.00	\$79.00
Issuer Country Code 840 - USA 840 - USA		840 - USA	
Application Currency Code840 - USD840 - USD		840 - USD	840 - USD
Language     'en' - English     'en' - English		ʻenesfr' (English, Spanish, French)	
Card Version v4.0 v4.0		v5.0	

	Test Card 13	Test Card 14	Test Card 15
Brand	Discover	DNA	Interac
Description	Single AID	Debit Network Alliance	Canadian Debit
AID list	A0000001524010	A000006200620	A000002771010
PAN on plastic	6011 9737 0000 0005	4000 0000 0000 0028	1967 3028 3901 8644
Expiry Date	12/2023	12/2025	12/2022
Service Code	201	201	220
Interface	Contact, MSR	Contact, MSR	Contactless, Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	\$79.00	\$10.00	\$30.00
Issuer Country Code	840 - USA	840 - USA	124 - CAN
Application Currency Code	840 - USD	840 - USD	124 -CAD
Language	'en' - English	'en' - English	'en' - English
Card Version	v5.0	v5.0	v4.0



	Test Card 16
Brand	Interac
Description	Canadian Debit
AID list	A0000002771010
PAN on plastic	4506 4450 0693 1933
Expiry Date	12/2022
Service Code	220
Interface	Contact, MSR
СЛМ	See card definition
Approval Amount	\$30.00
Issuer Country Code	124 - CAN
Application Currency Code	124 - CAD
Language	'en' - English
Card Version	v4.0



# 4.1 Test Card 01 - Visa, DI, 2-AID (Visa Debit+US Debit), English, USA, USD

A Dual Interface (Contact+Contactless) 2-AID Visa debit card with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is \$10.00.

#### 4.1.1 Contact: CVM List - Visa Debit, AID A000000031010

Cardhol	Cardholder Verification Method List ('0201 4204 1E04 0205 5E00 4200 1F00')			
CVM	Verification Method	Conditions	If unsuccessful	
1	Online PIN	Unattended Cash	Fail	
2	Online PIN	Manual Cash	Next CVM	
3	Signature (paper)	Manual Cash	Fail	
4	Online PIN	Purchase with Cashback	Fail	
5	Signature (paper)	Always	Next CVM	
6	Online PIN	Always	Next CVM	
7	No CVM required	Always	Fail	
8	Fail CVM Processing	Always	Fail	

#### 4.1.2 Contact: Application Tag data, AID A000000031010

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	56 49 53 41 20 44 45 42 49 54 - VISA
		DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01 19 55 94 58 00 00 0F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 20	Cardholder Name	55         53         41         20         44         45         42         49         54         2F         54         65           73         74         20         43         61         72         64         20         30         31         20         20           20         20         - 'USA DEBIT/Test Card 01'         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         2
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VSDC]	<ul> <li>18 00</li> <li>BYTE 1:</li> <li>b7 - Offline SDA NOT supported</li> <li>b6 - Offline DDA NOT supported</li> <li>b5 - Cardholder verification supported</li> <li>b4 - Terminal risk mgmt to be performed</li> <li>b3 - Issuer authentication NOT supported using</li> <li>External Authenticate command</li> <li>b1 - Combined DDA / GEN AC NOT supported</li> <li>BYTE 2:</li> <li>b8 - Mag-stripe mode NOT supported</li> <li>b7 - Is NOT Mobile phone</li> </ul>
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04



Tag	Element name	Data Card v4.0
8D	Card Risk Management Data Object List	8A 02 9F 02 06 9F 03 06 9F 1A 02 95
	2 (CDOL2)	05 5F 2A 02 9A 03 9C 01 9F 37 04 91
0	Cardbalder Varification Mathed (CVM)	0A 00 00 00 00 00 00 00 00 00 02 01 42 04
8E	Cardholder Verification Method (CVM)	1E 04 02 05 5E 00 42 00 1F 00
94	Application File Locator (AFL)	08 01 02 00
9F 07	Application Usage Control	FF 80
01 07	Application Usage Control	BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2: b8 - Domestic cashback allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 96
9F 0D	Issuer Action Code - Default	FC 50 AC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC 70 BC 98 00
9F 10	Issuer Application Data [VSDC]	xx xx A0 xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	56 69 73 61 20 44 65 62 69 74 20 20
05.40		20 20 20 20 - 'Visa Debit'
9F 13	Last Online Application Transaction	xx xx *
9F 17	Counter (ATC) Register Personal Identification Number (PIN)	01
96 17	Try Counter	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 44	Application Currency Exponent	02
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
		1A 02 95 05 9C 01 9F 27 01
9F 51	Application Currency Code [VSDC]	08 40 - USD
9F 52	Application Default Action [VSDC VIS	00 00 00 00 00 00
	1.5]	80
9F 56 9F 57	Issuer Authentication Indicator [VSDC] Issuer Country Code [VSDC]	08 40 - USA
9F 57 9F 5D	Available Offline Spending Amount	00 00 00 00 00 00
91.50	[VSDC]	
9F 68	Card Additional Processes [qVSDC	10 00 10 00
0.00	VCPS 2.1]	
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	



# 4.1.3 Contact: CVM List - U.S. Debit, AID A000000980840

Cardho	Cardholder Verification Method List ('0201 0205 4200 1F00 0000')			
CVM	Verification Method	Conditions	If unsuccessful	
1	Online PIN	Unattended Cash	Fail	
2	Online PIN	Purchase with Cashback	Fail	
3	Online PIN	Always	Next CVM	
4	No CVM required	Always	Fail	
5	Fail CVM Processing	Always	Fail	

# 4.1.4 Contact: Application Tag data, AID A000000980840

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	55 53 20 44 45 42 49 54 - 'US DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01
_		19 55 94 58 00 00 OF
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 30 31 20 20
		20 20 - 'USA DEBIT/Test Card 01'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VSDC]	BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 98 08 40
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 02 01 02 05 42 00 1F 00 00 00 00 00
94	Application File Locator (AFL)	08 01 02 00



BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b4 - Domestic cashback allowed b7 - International cashback NOT allowed9F 08Application Version Number00 969F 00Issuer Action Code - DefaultFC 50 AC 88 009F 01Issuer Action Code - DefaultFC 70 BC 98 009F 05Issuer Action Code - Denial00 00 009F 06Issuer Action Code - OnlineFC 70 BC 98 009F 10Issuer Action Code - OnlineFC 70 BC 98 009F 11Issuer Code Table Index019F 12Application Preferred Name55 53 20 20 20 20 20 - 'US Debit'9F 13Last Online Application Transaction Counter (ATC) Register019F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx xx xx xx xx xx9F 27Cryptogram Information Data (CID) 97 38 Processing Options Data Object List (PDOL)969F 44Application Currency Code08 40 - USD9F 44Application Currency Exponent02			
b8 - Domestic cash transactions valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b3 - International goods NOT valid b4 - Domestic goods valid b3 - International services valid b3 - International services valid b4 - Domestic cashback allowed b7 - International cashback NOT allowed b7 - Internation Profession counter (ATC) Register b7 - 1 Application Preferred Name b7 - 26 Application Cryptogram (AC) b7 - 26 Application Cryptogram (AC) b7 - 26 Application Cryptogram (AC) b7 - 27 Cryptogram Information Data (CID) b7 - 28 - 29 - 29 - 20 - 29 - 20 - 20 - 20 - 20	9F 07		
b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b3 - International goods NOT valid b3 - Domestic cashback allowed b7 - International cashback NOT allowed         9F 08       Application Version Number       00 96         9F 00       Issuer Action Code - Defiault       FC 50 Ac 88 00         9F 07       Issuer Action Code - Denial       00 00 00 00         9F 08       Issuer Action Code - Denial       00 00 00 00         9F 07       Issuer Action Code - Denial       00 00 00 00         9F 10       Issuer Action Code - Online       FC 70 BC 98 00         9F 11       Issuer Action Table Index       01         9F 12       Application Preferred Name       25 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20 20 20 20 20 - US Debit'         9F 13       Last Online Application Transaction Counter (ATC) Register       01         9F 26       Application Cryptogram (AC)       xx xx *         9F 26       Application Transaction Counter (ATC)       xx xx *         9F 27       Cryptogram Information Data (CID)       80         9F 38       Processing Options Data Object List (PDOL)       9F 02 06 5F 2A 02 9A 03 9F 36 02 9         9F 44       Application Currency Exponent       9F         9F 52       Applicat			
b6 - Domestic goods valid         b5 - International goods NOT valid         b4 - Domestic services valid         b2 - International services NOT valid         b2 - International services NOT valid         b2 - TMS valid         b1 - Terminals other than ATMs valid         BYTE 2:         b8 - Domestic cashback allowed         b7 - International cashback NOT allowed         B7 0D       Issuer Action Code - Default         PC 0D       Issuer Action Code - Denial         00 00 00 00 00       00         B7 0D       Issuer Action Code - Online         FC 70 BC 98 00       9F 10         Bsuer Action Code - Online       FC 70 BC 98 00         9F 10       Issuer Application Data [VSDC]         xx xx 10 xx xx xx xx 1       20 20 20 - 20 - 20 - 20 20 20 - 20 20 20 - 20 20 20 - 20 20 20 - 20 20 20 - 20 - 20 - 20 - 20 - 20 20 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 -			
b5 - International goods NOT valid         b4 - Domestic services valid         b3 - International services NOT valid         b2 - ATMs valid         b7 08       Application Version Number         9F 08       Application Version Number         9F 01       Issuer Action Code - Default         PF 02       Issuer Action Code - Default         PF 05       Issuer Action Code - Online         PF 06       Issuer Action Code - Online         PF 07       Issuer Action Code - Online         PF 11       Issuer Action Code - Online         PF 12       Application Data [VSDC]         PF 11       Issuer Action Code - Online         PF 12       Application Preferred Name         20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20			
b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed b7 - International Cashback Allowed b7 - Interna			
b3       International services NOT valid b2         b2       -ATMs valid b1         b2       -ATMs valid b1         BYTE 2: b8       b3         b7       00         9F       10         10       Issuer Action Code - Denial         00       00         9F       11         11       Issuer Code Table Index         01       9F         9F       12         Application Preferred Name       55         55       53       20       44         65       53       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       2			
b2 - ATMs valid       b1 - Terminals other than ATMs valid         BYTE 2:       b8 - Domestic cashback allowed         b7 - International cashback NOT allowed       b7 - International cashback NOT allowed         b7 0D       Issuer Action Code - Default       FC 50 AC 88 00         9F 0D       Issuer Action Code - Denial       00 00 00 00         9F 0F       Issuer Action Code - Online       FC 70 BC 98 00         9F 10       Issuer Application Data [VSDC]       xx xx A0 xx xx xx xx *         9F 11       Issuer Code Table Index       01         9F 12       Application Preferred Name       55 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20 20 20 20 20 20			
b1-Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed         9F 08       Application Version Number       00       96         9F 00       Issuer Action Code - Default       FC 50 AC 88 00         9F 01       Issuer Action Code - Denial       00 00 00 00       00         9F 02       Issuer Action Code - Online       FC 70 BC 98 00       97         9F 10       Issuer Application Data [VSDC]       xx xx 0 xx xx xx *       99         9F 11       Issuer Code Table Index       01         9F 12       Application Preferred Name       55 53 20 44 65 62 69 74 20 20 20 2       20 20 20 20 - 'US Debit'         9F 13       Last Online Application Transaction Counter (ATC) Register       xx xx *       *         9F 17       Personal Identification Number (PIN) Try Counter       01       1         9F 26       Application Transaction Counter (ATC)       xx xx *       *         9F 38       Processing Options Data Object List (PDOL)       90       90         9F 44       Application Currency Code       08 40 - USD       97         9F 44       Application Currency Exponent       02       02         9F 57       Application Default Action [VSDC]       08 40 - USA       97         9F 54       Applica			
BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed         9F 08       Application Version Number       00       96         9F 0D       Issuer Action Code - Default       FC 50 AC 88 00         9F 0E       Issuer Action Code - Denial       00 00 00 00       00         9F 0E       Issuer Action Code - Online       FC 70 BC 98 00         9F 10       Issuer Application Data [VSDC]       xx xx A0 xx xx xx xx *         9F 11       Issuer Code Table Index       01         9F 12       Application Preferred Name       20 20 20 20 - 'US Debit'         20       20 20 20 20 - 'US Debit'       20 20 20 20 - 'US Debit'         9F 13       Last Online Application Transaction Counter (ATC) Register       01         9F 26       Application Cryptogram (AC)       xx xx *         9F 27       Cryptogram Information Data (CID)       80         9F 38       Processing Options Data Object List (PDOL)       9F 06 05         9F 44       Application Currency Exponent       02         9F 44       Application Currency Code       08 40 - USD         9F 55       Issuer Authentication Indicator [VSDC]       08         9F 55       Application Default Action [VSDC]       08         9F 56       Issuer Authentication Indicator [VSDC]       <			
b8 - Domestic cashback allowed b7 - International cashback NOT allowed b7         9F 08       Application Version Number       00       96         9F 00       Issuer Action Code - Default       FC 50       AC 88       00         9F 01       Issuer Action Code - Denial       00       00       00       00         9F 01       Issuer Action Code - Online       FC 70       BC 98       00         9F 10       Issuer Action Code - Online       FC 70       BC 98       00         9F 11       Issuer Action Code - Data [VSDC]       xx xx A0 xx xx xx xx       xx       *         9F 11       Issuer Code Table Index       01       01       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20			
b7 - International cashback NOT allowed           9F 00         Application Version Number         00 96           9F 00         Issuer Action Code - Default         FC 50 AC 88 00           9F 0F         Issuer Action Code - Denial         00 00 00 00           9F 0F         Issuer Action Code - Online         FC 70 BC 98 00           9F 10         Issuer Application Data [VSDC]         xx xx Xx Xx Xx xx xx xx *           9F 11         Issuer Code Table Index         01           9F 12         Application Preferred Name         55 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20 20 20 20 20 20			
9F 08         Application Version Number         00         96           9F 0D         Issuer Action Code - Defiault         FC 50 AC 88 00           9F 0E         Issuer Action Code - Online         FC 70 BC 98 00           9F 0F         Issuer Application Data [VSDC]         xx xx A0 xx xx xx xx *           9F 11         Issuer Action Preferred Name         55 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20 20 20 20 20 20			
9F 0D         Issuer Action Code - Default         FC 50 AC 88 00           9F 0D         Issuer Action Code - Denial         00 00 00 00 00           9F 0F         Issuer Action Code - Online         FC 70 BC 98 00           9F 10         Issuer Application Data [VSDC]         xx xx A0 xx xx xx xx *           9F 11         Issuer Code Table Index         01           9F 12         Application Preferred Name         55 53 20 44 65 62 69 74 20 20 20 20 20 20 - US Debit'           9F 13         Last Online Application Transaction Counter (ATC) Register         xx xx *           9F 17         Personal Identification Number (PIN)         01           Try Counter         xx xx xx xx xx xx xx xx *         *           9F 26         Application Transaction Counter (ATC)         xx xx *           9F 36         Application Transaction Counter (ATC)         *           9F 36         Application Currency Code         08 40 - USD           9F 42         Application Currency Exponent         92           9F 44         Application Currency Code         08 40 - USD           9F 51         Application Default Action [VSDC]         08 40 - USD           9F 55         Issuer Authentication Indicator [VSDC]         08 40 - USA           9F 57         Issuer Country Code [VSDC]         08 40 - USA <td>9F 08</td> <td>Application Version Number</td> <td></td>	9F 08	Application Version Number	
00       00       00       00       00       00       00         9F       0E       Issuer Action Code - Denial       00       00       00       00         9F       0F       Issuer Application Data [VSDC]       xx       xx       x0       xx       xx <t< td=""><td></td><td></td><td>FC 50 AC 88 00</td></t<>			FC 50 AC 88 00
05       Control       Control       FC       70       BC       98       00         9F       10       Issuer Action Code - Online       FC       70       BC       98       00         9F       11       Issuer Application Data [VSDC]       xx       xx <td></td> <td></td> <td></td>			
OF 100       Issuer Application Data [VSDC]       xx xx A0 xx xx xx xx *         9F 10       Issuer Code Table Index       01         9F 11       Issuer Code Table Index       01         9F 12       Application Preferred Name       55 53 20 44 65 62 69 74 20 20 20 2         20       20       20 20 20 - 'US Debit'         9F 13       Last Online Application Transaction Counter (ATC) Register       xx xx x         9F 17       Personal Identification Number (PIN) Try Counter       01         9F 26       Application Cryptogram (AC)       xx xx xx xx xx xx xx xx xx         9F 36       Application Transaction Counter (ATC)       80         9F 37       Processing Options Data Object List (PDOL)       9F 06 05         9F 44       Application Currency Code       08 40 - USD         9F 47       Transaction Log Format       9F 02 06 5F 2A 02 9A 03 9F 36 02 9         9F 51       Application Default Action [VSDC]       08 40 - USD         9F 55       Issuer Authentication Indicator [VSDC]       80         9F 55       Issuer Authentication Indicator [VSDC]       08 40 - USA         9F 55       Application Default Action [VSDC]       80         9F 56       Issuer Authentication Indicator [VSDC]       08 40 - USA         9F 57       Issuer Country Code [			
of         form         f			
9F 12       Application Preferred Name       55       53       20       44       65       62       69       74       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20			
9F 12       Propriodition Protocol rulino         9F 13       Last Online Application Transaction Counter (ATC) Register       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20 <td< td=""><td></td><td></td><td>-</td></td<>			-
9F 13       Last Online Application Transaction Counter (ATC) Register       xx xx *         9F 17       Personal Identification Number (PIN) Try Counter       01         9F 26       Application Cryptogram (AC)       xx xx xx xx xx xx xx xx xx *         9F 27       Cryptogram Information Data (CID)       80         9F 36       Application Transaction Counter (ATC)       xx xx *         9F 38       Processing Options Data Object List (PDOL)       9F 06 05         9F 42       Application Currency Code       08 40 - USD         9F 44       Application Currency Exponent       02         9F 51       Application Default Action [VSDC]       08 40 - USD         9F 52       Application Default Action [VSDC VIS 1.5]       00 00 00 00 00 00 00         9F 56       Issuer Authentication Indicator [VSDC]       80         9F 57       Issuer Country Code [VSDC]       08 40 - USA         9F 50       Available Offline Spending Amount [VSDC]       00 00 00 00 00 00 00         9F 55       Contactless Counters Data Template       10 00 80 00         8F 56       Counters Data Template       8F 57         8F 58       Amounts Data Template       8F 57	9F 12	Application Preferred Name	
Counter (ATC) Register9F 17Personal Identification Number (PIN) Try Counter019F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx xx xx9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xx xx x9F 38Processing Options Data Object List (PDOL)9F 06 059F 42Application Currency Code08 40 - USD9F 44Application Currency Exponent029F 45Transaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 99F 51Application Default Action [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]809F 57Issuer Country Code [VSDC]08 40 - USA9F 50Available Offline Spending Amount (VSDC]00 00 00 00 00 00 009F 68Card Additional Processes [qVSDC VCPS 2.1]10 00 80 009F 55Contactless Counters Data TemplateBF 55BF 56Amounts Data TemplateBF 57BF 58Amounts Data TemplateE			
9F 17       Personal Identification Number (PIN) Try Counter       01         9F 26       Application Cryptogram (AC)       xx         9F 27       Cryptogram Information Data (CID)       80         9F 36       Application Transaction Counter (ATC)       xx xx xx         9F 38       Processing Options Data Object List (PDOL)       9F 06 05         9F 42       Application Currency Code       08 40 - USD         9F 44       Application Currency Exponent       02         9F 47       Transaction Log Format       9F 02 06 5F 2A 02 9A 03 9F 36 02 9 1A 02 95 05 9c 01 9F 27 01         9F 51       Application Currency Code [VSDC]       08 40 - USD         9F 52       Application Default Action [VSDC VIS 1.5]       00 00 00 00 00 00 00         9F 56       Issuer Authentication Indicator [VSDC]       80         9F 57       Issuer Country Code [VSDC]       08 40 - USA         9F 50       Available Offline Spending Amount [VSDC]       00 00 00 00 00 00         9F 58       Card Additional Processes [qVSDC VCPS 2.1]       10 00 80 00         BF 55       Contactless Counters Data Template       E         BF 57       International Counters Data Template       E         BF 58       Amounts Data Template       E <td>9F 13</td> <td></td> <td>xx xx *</td>	9F 13		xx xx *
Try Counter9F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx xx xx xx9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xx xx xx9F 38Processing Options Data Object List (PDOL)9F 06 059F 42Application Currency Code08 40 - USD9F 44Application Currency Exponent029F 45Transaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 91A 02 95 05 9c 01 9F 27 011A 02 95 05 9c 01 9F 27 019F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]809F 57Issuer Country Code [VSDC]08 40 - USA9F 55Available Offline Spending Amount [VSDC]00 00 00 00 00 00 009F 68Card Additional Processes [qVSDC VCPS 2.1]10 00 80 00BF 55Contactless Counters Data TemplateBF 57BF 58Amounts Data TemplateBF 58BF 58Amounts Data Template			
9F 26Application Cryptogram (AC)xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	9F 17	Personal Identification Number (PIN)	01
9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xx xx *9F 38Processing Options Data Object List (PDOL)9F 06 059F 42Application Currency Code08 40 - USD9F 44Application Currency Exponent029F 45Transaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 91A 02 95 05 9c 01 9F 27 011A 02 95 05 9c 01 9F 27 019F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]809F 50Available Offline Spending Amount [VSDC]08 40 - USA9F 55Contactless Counters Data Template10 00 80 009F 56Scard Additional Processes [qVSDC VCPS 2.1]10 00 80 009F 57International Counters Data Template15 00 00 00 00 00 00 009F 58Amounts Data Template15 00 00 00 00 00 00 00		Try Counter	
9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xx xx *9F 38Processing Options Data Object List (PDOL)9F 06 059F 42Application Currency Code08 40 - USD9F 44Application Currency Exponent029F 45Transaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 91A 02 95 05 9c 01 9F 27 011A 02 95 05 9c 01 9F 27 019F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]809F 50Available Offline Spending Amount [VSDC]08 40 - USA9F 55Contactless Counters Data Template10 00 80 009F 56Scard Additional Processes [qVSDC VCPS 2.1]10 00 80 009F 57International Counters Data Template15 00 00 00 00 00 00 009F 58Amounts Data Template15 00 00 00 00 00 00 00	9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 36Application Transaction Counter (ATC)xx xx *9F 38Processing Options Data Object List (PDOL)9F 06 059F 42Application Currency Code08 40 - USD9F 44Application Currency Exponent029F 47Transaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 99F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]809F 57Issuer Country Code [VSDC]08 40 - USA9F 50Available Offline Spending Amount [VSDC]00 00 00 00 00 00 009F 58Card Additional Processes [qVSDC VCPS 2.1]10 00 80 009F 56Counters Data TemplateBF 57International Counters Data TemplateBF 58Amounts Data TemplateBF 58Amounts Data Template	9F 27		80
9F 38Processing Options Data Object List (PDOL)9F 06 059F 42Application Currency Code08 40 - USD9F 44Application Currency Exponent029F 44Application Currency Exponent029F 47Transaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 9 1A 02 95 05 9C 01 9F 27 019F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]809F 57Issuer Country Code [VSDC]08 40 - USA9F 50Available Offline Spending Amount [VSDC]00 00 00 00 00 00 009F 68Card Additional Processes [qVSDC VCPS 2.1]10 00 80 009F 55Contactless Counters Data Template10 00 80 009F 57International Counters Data Template9F 569F 57International Counters Data Template9F 579F 58Amounts Data Template9F 57	9F 36		xx xx *
(PDOL)9F 42Application Currency Code08 40 - USD9F 44Application Currency Exponent029F 44Application Currency Exponent029F 4FTransaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 91A 02 95 05 9C 01 9F 27 011A 02 95 05 9C 01 9F 27 019F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]809F 57Issuer Country Code [VSDC]08 40 - USA9F 5DAvailable Offline Spending Amount [VSDC]00 00 00 00 00 00 009F 68Card Additional Processes [qVSDC VCPS 2.1]10 00 80 009F 55Contactless Counters Data TemplateBF 56Counters Data TemplateBF 57International Counters Data TemplateBF 58Amounts Data TemplateBF 58Amounts Data Template			9F 06 05
9F 44Application Currency Exponent029F 4FTransaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 91A 02 95 05 9c 01 9F 27 019F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]809F 57Issuer Country Code [VSDC]08 40 - USA9F 50Available Offline Spending Amount [VSDC]00 00 00 00 00 009F 68Card Additional Processes [qVSDC VCPS 2.1]10 00 80 009F 57International Counters Data TemplateBF 57International Counters Data TemplateBF 58Amounts Data TemplateBF 58Amounts Data Template		(PDOL)	
9F 4F       Transaction Log Format       9F 02 06 5F 2A 02 9A 03 9F 36 02 9         1A 02 95 05 9C 01 9F 27 01         9F 51       Application Currency Code [VSDC]       08 40 - USD         9F 52       Application Default Action [VSDC VIS       00 00 00 00 00 00         1.5]       00 00 00 00 00 00       00 00         9F 56       Issuer Authentication Indicator [VSDC]       80         9F 57       Issuer Country Code [VSDC]       08 40 - USA         9F 57       Issuer Country Code [VSDC]       08 40 - USA         9F 5D       Available Offline Spending Amount [VSDC]       00 00 00 00 00 00         9F 68       Card Additional Processes [qVSDC VCPS 2.1]       10 00 80 00         BF 55       Contactless Counters Data Template       E         BF 57       International Counters Data Template       E         BF 58       Amounts Data Template       E			
IA 02 95 05 9C 01 9F 27 019F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]809F 57Issuer Country Code [VSDC]08 40 - USA9F 5DAvailable Offline Spending Amount [VSDC]00 00 00 00 00 009F 68Card Additional Processes [qVSDC VCPS 2.1]10 00 80 009F 55Contactless Counters Data TemplateBF 56Counters Data TemplateBF 57International Counters Data TemplateBF 58Amounts Data Template	9F 44	Application Currency Exponent	-
9F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS00 00 00 00 00 001.5]00 00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]809F 57Issuer Country Code [VSDC]08 40 - USA9F 5DAvailable Offline Spending Amount00 00 00 00 00 00[VSDC]9F 68Card Additional Processes [qVSDC9F 55Contactless Counters Data TemplateBF 56Counters Data TemplateBF 57International Counters Data TemplateBF 58Amounts Data Template	9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 00 009F 52Issuer Authentication Indicator [VSDC]809F 56Issuer Country Code [VSDC]08 40 - USA9F 57Issuer Country Code [VSDC]00 00 00 00 00 009F 5DAvailable Offline Spending Amount [VSDC]00 00 00 00 00 009F 68Card Additional Processes [qVSDC VCPS 2.1]10 00 80 009F 55Contactless Counters Data TemplateBF 56Counters Data TemplateBF 57International Counters Data TemplateBF 58Amounts Data Template			
1.5]         9F 56       Issuer Authentication Indicator [VSDC]       80         9F 57       Issuer Country Code [VSDC]       08 40 - USA         9F 5D       Available Offline Spending Amount [VSDC]       00 00 00 00 00 00         9F 68       Card Additional Processes [qVSDC       10 00 80 00         VCPS 2.1]       BF 55       Contactless Counters Data Template         BF 56       Counters Data Template       BF 57         BF 57       International Counters Data Template       BF 58         BF 58       Amounts Data Template       BF 58	9F 51	Application Currency Code [VSDC]	
9F 56       Issuer Authentication Indicator [VSDC]       80         9F 57       Issuer Country Code [VSDC]       08 40 - USA         9F 5D       Available Offline Spending Amount [VSDC]       00 00 00 00 00 00         9F 68       Card Additional Processes [qVSDC VCPS 2.1]       10 00 80 00         BF 55       Contactless Counters Data Template       10 00 80 00         BF 56       Counters Data Template       10 00 80 00         BF 57       International Counters Data Template       10 00 80 00         BF 58       Amounts Data Template       10 00 80 00	9F 52		00 00 00 00 00 00
9F 57       Issuer Country Code [VSDC]       08 40 - USA         9F 5D       Available Offline Spending Amount [VSDC]       00 00 00 00 00 00         9F 68       Card Additional Processes [qVSDC VCPS 2.1]       10 00 80 00         BF 55       Contactless Counters Data Template         BF 56       Counters Data Template         BF 57       International Counters Data Template         BF 58       Amounts Data Template	9F 56		80
9F 5D       Available Offline Spending Amount [VSDC]       00 00 00 00 00 00         9F 68       Card Additional Processes [qVSDC VCPS 2.1]       10 00 80 00         BF 55       Contactless Counters Data Template         BF 56       Counters Data Template         BF 57       International Counters Data Template         BF 58       Amounts Data Template			08 40 - USA
[VSDC]         9F 68       Card Additional Processes [qVSDC         VCPS 2.1]         BF 55       Contactless Counters Data Template         BF 56       Counters Data Template         BF 57       International Counters Data Template         BF 58       Amounts Data Template	-		
9F 68Card Additional Processes [qVSDC VCPS 2.1]10 00 80 00BF 55Contactless Counters Data TemplateBF 56Counters Data TemplateBF 57International Counters Data TemplateBF 58Amounts Data Template			
VCPS 2.1]       BF 55       Contactless Counters Data Template       BF 56       Counters Data Template       BF 57       International Counters Data Template       BF 58       Amounts Data Template	9F 68		10 00 80 00
BF 55       Contactless Counters Data Template         BF 56       Counters Data Template         BF 57       International Counters Data Template         BF 58       Amounts Data Template	31 00		
BF 56       Counters Data Template         BF 57       International Counters Data Template         BF 58       Amounts Data Template	DE 55		
BF 57     International Counters Data Template       BF 58     Amounts Data Template			
BF 58 Amounts Data Template			
BF 59   Profile Controls Template			
		•	
BF 5A AIP/AFL Entries Template			
BF 5B Application Internal Data Template DF 01 02 00 00	BF 5B	Application Internal Data Template	DF 01 02 00 00

# 4.1.5 Contactless: Application Tag data, AID A000000031010

	* Tag value changes with card usage			
Tag	Element name	Data Card v4.0		
42	Issuer Identification Number (IIN)	47 61 73		
50	Application Label	56 49 53 41 20 44 45 42 49 54 - 'VISA DEBIT'		
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01 19 55 94 58 00 00 1F		



5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 24	Application Expiration Date	22 12 31
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VCPS]	00 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported b5 - Cardholder verification NOT supported
		b4 - Terminal risk mgmt NOT to be performed
		b3 - Issuer authentication NOT supported using
		External Authenticate command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2: b8 - Mag-stripe mode NOT supported
		b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10
87	Application Priority Indicator	01
94	Application File Locator (AFL)	08 03 03 00
9F 07	Application Usage Control [VCPS]	C0 80
		BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods NOT valid b5 - International goods NOT valid
		b4 - Domestic services NOT valid
		b3 - International services NOT valid
		b2 - ATMs NOT valid
		b1- Terminals other than ATMs NOT valid BYTE 2:
		bille 2. b8 - Domestic cashback allowed
		b7 - International cashback NOT allowed
9F 10	Issuer Application Data [VSDC]	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	56 69 73 61 20 44 65 62 69 74 20 20
		20 20 20 - 'Visa Debit'
9F 13	Last Online Application Transaction	xx xx *
05.47	Counter (ATC) Register	01
9F 17	Personal Identification Number (PIN)	01
05.00	Try Counter	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx * 80
9F 27	Cryptogram Information Data (CID)	xx xx *
9F 36 9F 38	Application Transaction Counter (ATC) Processing Options Data Object List	9F 66 04 9F 02 06 9F 03 06 9F 1A 02
95 30	(PDOL)	95 05 5F 2A 02 9A 03 9C 01 9F 37 04
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
		1A 02 95 05 9C 01 9F 27 01
9F 51	Application Currency Code [VSDC]	08 40 - USD
9F 52	Application Default Action [VSDC VIS	00 00 00 00
	1.5]	
9F 57	Issuer Country Code [VSDC]	08 40 - USA
9F 5A	Application Program Identifier	11 08 40 08 40
9F 5D	Available Offline Spending Amount [VSDC]	00 00 00 00 00 00
9F 68	Card Additional Processes [qVSDC	10 00 10 00
	VCPS 2.1]	



9F 69	Card Authentication Related Data [qVSDC]	0100000000LAST TWO BYTESBYTE 1:"b8 - Online PIN NOT requiredb7 - Signature NOT requiredb6 - Do NOT go online if Offline DataAuthentication fails and Reader is onlinecapableb5 - Do NOT switch interface if Offline DataAuthentication fails and Reader supportscontact chipb4 - Do NOT go Online if Application Expiredb3 - Do NOT switch interface for CashTransactionsb2 - Do NOT switch interface for CashbackTransactionsb1 - Is valid for contactless ATM transactionsBYTE 2:b8 - Consumer Device CVM NOT performedb7 - Card does NOT Support Issuer UpdateProcessing at POSb2 - NOT valid at ATMs
9F 6C	Card Transaction Qualifiers [qVSDC VCPS 2.1]	00 00
9F 6E	Form Factor Indicator [qVSDC]	20 70 00 00
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	
BF 5A	AIP/AFL Entries Template	
BF 5B	Application Internal Data Template	DF 01 02 00 00

# 4.1.6 Contactless: Application Tag data, AID A000000980840

		* Tag value changes with card usage		
Tag	Element name	Data Card v4.0		
42	Issuer Identification Number (IIN)	47 61 73		
50	Application Label	55 53 20 44 45 42 49 54 - 'VISA DEBIT'		
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01 19 55 94 58 00 00 1F		
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35		
5F 24	Application Expiration Date	22 12 31		
5F 28	Issuer Country Code	08 40 - USA		
5F 2D	Language Preference	65 6E - 'en' (English)		
5F 34	Application PAN Sequence Number	01		
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'		
82	Application Interchange Profile [VCPS]	00 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification NOT supported b4 - Terminal risk mgmt NOT to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone		
84	Dedicated File (DF) Name	A0 00 00 00 98 08 40		
87	Application Priority Indicator	02		



94	Application File Locator (AFL)	08 03 03 00
9F 07	Application Usage Control [VCPS]	C0 80
		BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods NOT valid
		b5 - International goods NOT valid b4 - Domestic services NOT valid
		b3 - International services NOT valid
		b2 - ATMs NOT valid
		b1- Terminals other than ATMs NOT valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback NOT allowed
9F 10	Issuer Application Data [VSDC]	xx xx A0 xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 44 65 62 69 74 20 20 20 20
		20 20 20 20 - 'US Debit'
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *
9F 17	Personal Identification Number (PIN)	01
	Try Counter	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List	9F 66 04 9F 02 06 9F 03 06 9F 1A 02
	(PDOL)	95 05 5F 2A 02 9A 03 9C 01 9F 37 04
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
		1A 02 95 05 9C 01 9F 27 01
9F 51	Application Currency Code [VSDC]	08 40 - USD
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00
9F 57	Issuer Country Code [VSDC]	08 40 - USA
9F 5A	Application Program Identifier	11 08 40 08 40
9F 5D	Available Offline Spending Amount	00 00 00 00 00 00
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	10 00 80 00
9F 69	Card Authentication Related Data	01 00 00 00 00 00 00
0.00	[qVSDC]	LAST TWO BYTES
		BYTE 1:
		b8 - Online PIN NOT required
		b7 - Signature NOT required
		b6 - Do NOT go online if Offline Data
		Authentication fails and Reader is online
		capable b5 - Do NOT switch interface if Offline Data
		Authentication fails and Reader supports
		contact chip
		b4 - Do NOT go Online if Application Expired
		b3 - Do NOT switch interface for Cash
		Transactions
		b2 - Do NOT switch interface for Cashback
		Transactions
		b1 - Is valid for contactless ATM transactions
		BYTE 2: b8 - Consumer Device CVM NOT performed
		b7 - Card does NOT Support Issuer Update
		Processing at POS
		b2 - NOT valid at ATMs
9F 6C	Card Transaction Qualifiers [qVSDC	00 00
	VCPS 2.1]	
	· · · · · · · · · · · · · · · · · · ·	1



9F 6E	Form Factor Indicator [qVSDC]	20 70 00 00
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	
BF 5A	AIP/AFL Entries Template	
BF 5B	Application Internal Data Template	DF 01 02 00 00

# 4.2 Test Card 02 - Visa, CO, 1-AID (US Debit), English, USA, USD

A contact-only, single-AID Visa debit card with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is \$10.00.

#### 4.2.1 Contact: CVM List - US Debit, AID - A000000980840

Cardhold	Cardholder Verification Method List ('0201 0004 0205 4200 1F00')			
CVM	Verification Method	Conditions	If unsuccessful	
1	Online PIN	Unattended Cash	Fail	
2	Fail CVM Processing	Manual Cash	Fail	
3	Online PIN	Purchase with Cashback	Fail	
4	Online PIN	Always	Next CVM	
5	No CVM required	Always	Fail	

#### 4.2.2 Contact: Application Tag data, AID A000000980840

	* Tag value changes with card usage		
Tag	Element name	Data Card v4.0	
42	Issuer Identification Number (IIN)	47 61 73	
50	Application Label	55 53 20 44 45 42 49 54 - 'US DEBIT'	
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01 19 55 94 58 00 00 0F	
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35	
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 30 32 20 20 20 - 'USA DEBIT/Test Card 02'	
5F 24	Application Expiration Date	22 12 31	
5F 25	Application Effective Date	xx xx xx *	
5F 28	Issuer Country Code	08 40 - USA	
5F 2D	Language Preference	65 6E - 'en' (English)	
5F 30	Service Code	02 01	
5F 34	Application PAN Sequence Number	01	
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'	
82	Application Interchange Profile [VSDC]	<ul> <li>18 00</li> <li>BYTE 1:</li> <li>b7 - Offline SDA NOT supported</li> <li>b6 - Offline DDA NOT supported</li> <li>b5 - Cardholder verification supported</li> <li>b4 - Terminal risk mgmt to be performed</li> <li>b3 - Issuer authentication NOT supported using</li> </ul>	

Tag	Element name	Data Card v4.0
		External Authenticate command
		b1 - Combined DDA / GEN AC NOT supported BYTE 2:
		b8 - Mag-stripe mode NOT supported
		b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 98 08 40
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04
8D	Card Risk Management Data Object List	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
	2 (CDOL2)	00 00 00 00 00 00 00 00 02 01 00 04
8E	Cardholder Verification Method (CVM)	02 05 42 00 1F 00
8F	List Certification Authority Public Key Index	92
90	Issuer Public Key Certificate	3C 96 F7 65 8F BC 29 A2 02 F1 91 46
30	Issuel 1 ubic riey Certificate	BD E9 21 66 B0 F6 22 1B BC CB 02 E3
		26 71 0B 9E 22 9D 16 FA E9 AD 0C 87
		4C 06 85 91 6E 19 F0 E3 26 93 EE 20
		1B CE 23 59 50 9A 6D 65 72 F8 EC 3F C3 73 12 6B 34 3F 9C B8 15 3D 61 B7
		EA B2 D4 2D E1 9D 56 08 31 85 A0 3D
		D1 4C 26 8D 40 DF 08 35 C5 5E AB FA
		38 ED 28 BC E4 2C D0 01 3D A9 4F 80
		05 18 B7 53 C2 46 EF FB A0 8F D2 02
		9B AD 5D FC F0 DA F0 7B 7D 80 1C 46 5F FD 25 2C 70 B9 21 53 B3 30 D9 5D
		CA 2F A1 FA AE 2D 01 68 A4 EA 8B 47
		5C D8 05 DC 32 AA 96 4C 17 BF CD 2C
		D5 D0 30 9A B0 EA 76 1B
92	Issuer Public Key Remainder	50 DA 20 DD A8 95 3B 69 3F ED 84 36 68 31 BA 1E EA 97 F7 8F 79 2A CF 8C
		B9 8F DF 01 49 A7 B7 8F DA 1C 49 67
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 B0 01 01 00
9F 07	Application Usage Control	AB 80
		BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid
		b5 - International goods NOT valid
		b4 - Domestic services valid
		b3 - International services NOT valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 96
9F 0D	Issuer Action Code - Default	FC 50 AC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00
9F 0F	Issuer Action Code - Online	FC 70 BC 98 00
9F 10	Issuer Application Data [VSDC]	xx xx A0 xx xx xx xx *
9F 11	Issuer Code Table Index	
9F 12	Application Preferred Name	55 53 20 44 65 62 69 74 - 'US Debit'
9F 13	Last Online Application Transaction	xx xx *
05 47	Counter (ATC) Register	03
9F 17	Personal Identification Number (PIN) Try Counter	
9F 1F	Track 1 Discretionary Data	20 20 20 20 20 20 20 20 20 20 20 20 20 2
		20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20<
	t in the second s	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *



Tee		Dete Conduct 0
Tag	Element name	Data Card v4.0
9F 32	Issuer Public Key Exponent	xx xx *
9F 36	Application Transaction Counter (ATC)	02
9F 44	Application Currency Exponent	*=
9F 46	ICC Public Key Certificate	21 F3 FF 81 73 C5 37 DA BD F2 DB C2 EB 72 94 5A 6A C6 BB E3 80 62 08 44
		25 D7 67 37 BA 98 E5 A6 64 10 81 D7
		40 C0 7B 68 00 00 55 9E DF FF 5B CA
		FC F5 B8 35 A9 C4 98 48 75 B5 C7 8C
		91 D0 A4 80 CC CF 0D 9A 2D 53 91 D2
		DC 56 53 96 08 B1 32 55 B9 56 D4 A4
		E5 D7 FB 85 EF 3C D0 9E 09 7A D2 14 C6 0A 25 8E DF 15 B9 1C 32 9A D9 8E
		5B E9 44 7F A3 27 C6 0B 57 81 53 CF
		5A 6F 62 18 F9 44 D8 79 89 00 0E FE
		E3 B1 6D D7 8C FB CC EF 5C B5 EF C1
		A6 D8 1C 53 8F 16 85 0E 91 64 6A 2D
		E0 DA DC E4 17 1F 52 B1 54 F1 67 CD
		52 8A 88 E3 56 16 71 F4
9F 47	ICC Public Key Exponent	03
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04
9F 4A	Static Data Authentication Tag List	82
9F 51	Application Currency Code [VSDC]	08 40 - USD
9F 52	Application Default Action [VSDC VIS	00 00 00 00 00 00
	1.5]	
9F 53	Consecutive Transaction Limit (International) [VSDC]	00
9F 54	Cumulative Total Transaction Amount	00 00 00 00 00 00
	Limit [VSDC]	
9F 57	Issuer Country Code [VSDC]	08 40 - USA
9F 58	Consecutive Transaction Counter Limit	00
9F 59	Consecutive Transaction Counter Upper	00
	Limit [VSDC]	
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 00 00 00
9F 5E	Consecutive Transaction International	00
31 31	Upper Limit [VSDC]	
9F 68	Card Additional Processes [qVSDC	10 00 10 00
91 00	VCPS 2.1]	
9F 72	Consecutive Transaction Limit	00
51 /2	(International-Country) [VSDC]	
BF 55	Contactless Counters Data Template	DF 11 01 00 DF 21 01 00 DF 31 01 00
BF 55 BF 56	Counters Data Template	DF 11 01 02 DF 21 01 00 DF 31 01 00
BF 50 BF 57	International Counters Data Template	DF 11 01 02 DF 21 01 00 DF 31 01 00 DF 11 01 02 DF 21 01 00 DF 31 01 00
DF 37		DF 51 01 02 DF 51 01 00 DF 51 01 00
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00 DF 21 06
DI 00		00 00 00 00 00 00 DF 31 06 00 00 00
BF 5B	Application Internal Data Template	



# 4.3 Test Card 03 - Visa, CO, 3-AID (Credit+Debit+US Common, 2-Funding), English, USA, USD

A contact-only, 3-AID combination Visa credit & debit card with 2 funding accounts which has an issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is \$10.00.

### 4.3.1 Contact: CVM List - Visa Credit, AID - A00000003101001

Cardho	Cardholder Verification Method List ('0201 4204 1E04 0005 5E00 1F00')			
CVM	Verification Method	Conditions	If unsuccessful	
1	Online PIN	Unattended Cash	Fail	
2	Online PIN	Manual Cash	Next CVM	
3	Signature (paper)	Manual Cash	Fail	
4	Fail CVM Processing	Purchase with Cashback	Fail	
5	Signature (paper)	Always	Next CVM	
6	No CVM required	Always	Fail	
7	Fail CVM Processing	Always	Fail	

#### 4.3.2 Contact: Application Tag data, AID A00000003101001

		* Tag value changes with card usage
Tag	Element name	Data Card v6.x
50	Application Label	56 49 53 41 20 43 52 45 44 49 54 20 20 20 20 20 - 'VISA CREDIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 76 D2 21 22 01 19 55 94 58 00 00 0F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 76
5F 20	Cardholder Name	55         53         41         20         44         45         42         49         54         2F         54         65           73         74         20         43         61         72         64         20         30         33         20         20           20         20         - 'USA DEBIT/Test Card 03'         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         2
5F 24	Application Expiration Date	22 12 31
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile [VSDC]	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10 01
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 02 01 42 04 1E 04 00 05 5E 00 1F 00 00 00



94       Application File Locator (AFL)       08       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01			
9F 07       Application Usage Control       FF 00         BYTE 1:       b8 - Domestic cash transactions valid b6 - Domestic goods valid b6 - Domestic services valid b6 - Domestic services valid b7 - Int? (cash transactions valid b6 - Domestic services valid b7 - International goods valid b7 - International goods valid b7 - International services valid b7 - International cashback NOT allowed b7 - Inter	Tag		
BYTE 1:       BYTE 1:         b6 - Domestic cash transactions valid b7 - Int? cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International services valid b2 - ATMs valid b1 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - Internation Code - Online FC 70 BC 98 00         9F 00       Issuer Action Code - Default PF 01       FC 50 AC 88 00         9F 10       Issuer Action Code - Online PF 07 Bc 98 00       FC 70 BC 98 00         9F 11       Issuer Action Code - Online PF 07 Bc Application Transaction Counter (ATC) Register       91         9F 12       Application Cryptogram (AC)       xx xx *         9F 26       Application Currency Exponent (PDOL)       90         9F 27       Cryptogram Information Data (CID) PF 51       Application Currency Exponent PF 02 06 5F 2A 02 9A 03 9F 36 02 9 1A 02 95 05 9C 01 9F 27 01 9F 54         9F 54       Application Currency Code [VSDC]       08 40 - USA         9F 55       Application Default Action [VSDC]       08		Application File Locator (AFL)	
b8       Domestic cash transactions valid         b7       Int' cash transactions valid         b6       Domestic goods valid         b6       Domestic goods valid         b7       International goods valid         b6       Domestic services valid         b1       Domestic services valid         b2       ATMs valid         b1       Terminals other than ATMs valid         BYTE 2:       b6         b7       International cashback NOT allowed         b7       Insuer Action Code - Default       PC 50 AC 88 00         b7 0E       Issuer Action Code - Default       PC 70 BC 98 00         b7 0F       Issuer Action Code - Online       PC 70 BC 98 00         b7 11       Issuer Application Data [VSDC]       xx xx xx xx xx xx xx xx *         b7 12       Application Preferred Name       56 69 73 61 20 43 72 65 64 69 74 2         b7 12       Application Transaction Counter (ATC)       xx xx *         b7 27       Cryptogram Information Data (CID)       00         b7 27       Cryptogram Information Data (CID)       80	9F 07	Application Usage Control	
b7       Int? (ash transactions valid b6 - Domestic goods valid b6 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - Internation Code - Denial b7 - Internation Code - Denial b7 - Internation Code - Denial b7 - Internation Number (PIN) b7 - Internation Information Data (CID) b7 - Visa Credit' b7 - Cryptogram Information Data (CID) b7 - Deficient Currency Exponent b7 - Internation Log Format b7 - Issuer Country Code [VSDC] b7 - D - D - D - D - D - D - D - D - D -			
b6 - Domestic goods valid         b5 - International goods valid         b5 - International goods valid         b3 - International services valid         b3 - International services valid         b1 - Terminals other than ATMs valid         BYTE 2:         b8 - Domestic cashback NOT allowed         b7 0B       Issuer Action Code - Default         FC 50 Ac 88 00         9F 0F       Issuer Action Code - Denial         00 00 00 00 00       00         9F 0F       Issuer Action Code - Denial         00 9F 0F       Issuer Action Code - Denial         00 9F 0F       Issuer Action Code - Online         FC 70 BC 98 00       9F 10         9F 11       Issuer Action Code - Online         FC 70 BC 98 00       9F 11         9F 12       Application Preferred Name         26 6 9 73 61 20 43 72 65 64 69 74 2         20 20 20 20 - 'Visa Credit'         9F 17       Personal Identification Transaction         Counter (ATC) Register       00         9F 26       Application Transaction Counter (ATC)         9F 27       Cryptogram Information Data (CID)         80       9F 02 06 5F 2A 02 9A 03 9F 36 02 9         9F 36       Application Currency Exponent         9F 24			
b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b3 - International services valid b4 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - Issuer Action Code - Denial9F 00Issuer Action Code - Denial00 00 00 00 009F 01Issuer Action Code - Denial00 00 00 00 009F 10Issuer Action Code - OnlineFC 70 BC 98 009F 11Issuer Action Code - OnlineFC 70 BC 98 009F 12Application Data [VSDC]xx xx 0A xx xx xx xx xx x9F 13Last Online Application Transaction Counter (ATC) Register20 20 20 20 - 'Visa Credit'9F 14Application Cryptogram (AC)xx xx x xx xx xx xx xx x9F 27Cryptogram Information Data (CID) P7 36809F 38Processing Options Data Object List (PDCL)9F 06 079F 44Application Currency Exponent029F 51Application Default Action [VSDC]08 40 - USD9F 52Application Default Action [VSDC]08 40 - USD9F 54Sure Country Code [VSDC]08 40 - USA9F 55Conters Data TemplateE8F 57International Counters Data Template8F 58Amounts Data Template <td></td> <td></td> <td></td>			
b4       - Domestic services valid b3         b4       - ATMs valid b1         b2       - ATMs valid b1         b7       - ATMs valid b1         B7       08         Application Version Number       00         9F       08         9F       01         101       Issuer Action Code - Default         PC       50         AC       88         9F       00         9F       00         9F       01         9F       10         11       Issuer Action Code - Online         PC       70         12       Application Data [VSDC]         13       Last Online Application Transaction Counter (ATC) Register         14       Application Preferred Name         15       66         14       Personal Identification Number (PIN) Try Counter         15       Application Cryptogram (AC)         16       80         17       Personal Identification Counter (ATC)         18       Application Transaction Counter (ATC)         19       72         10       100         11       Superstrestrestrestrestrestrestrestrestrest			
b2 - ATMs valid         b1 - Terminals other than ATMs valid         BYTE 2:         b8 - Domestic cashback NOT allowed         b7 - International cashback NOT allowed         b7 0D         Issuer Action Code - Default         FC 50 AC 88 00         9F 0E         Issuer Action Code - Denial         00 00 00 00 00         9F 0F         Issuer Action Code - Online         FC 70 BC 98 00         9F 10         Issuer Action Code - Online         FC 70 BC 98 00         9F 11         Issuer Action Code - Online         FC 70 BC 98 00         9F 11         Issuer Code Table Index         9F 12         Application Preferred Name         56 69 73 61 20 43 72 65 64 69 74 2         20 20 20 20 - Visa Credit'         9F 17         Personal Identification Number (PIN)         Try Counter         9F 26         Application Transaction Counter (ATC)         xx xx x         9F 38         Processing Options Data Object List         (PDOL)         9F 44         Application Currency Exponent         9F 20       95 95 9C 01 9F 27 01			
b1-Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International counters Data Template b7 58 Amounts Data Template			b3 - International services valid
BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - International cashback NOT allowed b7 - International cashback NOT allowed9F 00Issuer Action Code - DefaultFC 50 AC 88 009F 00Issuer Action Code - Denial00 00 00 00 009F 01Issuer Action Code - Denial00 00 00 009F 05Issuer Action Data [VSDC]xx xx 0A xx xx xx *9F 10Issuer Action Data [VSDC]xx xx 0A xx xx xx *9F 11Issuer Code Table Index019F 12Application Preferred Name56 69 73 61 20 43 72 65 64 69 74 2 20 20 20 20 20 - 'Visa Credit'9F 13Last Online Application Transaction Counter (ATC) Registerxx xx *9F 17Personal Identification Number (PIN) Try Counter009F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx *9F 38Processing Options Data Object List (PDCL)9F 06 079F 44Application Currency Exponent029F 457Transaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 9 1A 02 95 05 9c 01 9F 27 019F 56Issuer Authentication Indicator [VSDC]009F 57Issuer Country Code [VSDC]08 40 - USD9F 56Issuer Authentication Indicator [VSDC]009F 57Issuer Country Code [VSDC]08 40 - USA9F 56Issuer Authentication Indicator [VSDC]089F 56Issuer Authentication Indicator [VSDC]089F 56Issuer Authentication Indicator [VSDC]089F 56Issuer Authentication Indicator [VSDC]08			
b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - International cashback NOT allowed b7 0D         9F 00       Issuer Action Code - Default       FC 50 AC 88 00         9F 00       Issuer Action Code - Denial       00 00 00 00 00         9F 01       Issuer Action Code - Online       FC 70 BC 98 00         9F 10       Issuer Action Code - Online       FC 70 BC 98 00         9F 11       Issuer Action Data [VSDC]       xx xx 0A xx xx xx xx *         9F 11       Issuer Code Table Index       01         9F 12       Application Preferred Name       56 69 73 61 20 43 72 65 64 69 74 2 20 20 20 20 20 20 'Visa Credit'         9F 13       Last Online Application Transaction Counter (ATC) Register       xx xx *         9F 26       Application Cryptogram (AC)       xx xx xx xx xx xx xx xx *         9F 27       Cryptogram Information Data (CID)       80         9F 36       Application Transaction Counter (ATC)       xx xx *         9F 37       Processing Options Data Object List (PDOL)       9F 06 07         9F 44       Application Currency Exponent       02         9F 51       Application Currency Exponent       02         9F 52       Application Currency Code [VSDC]       08 40 - USD         9F 55       Issuer Authentication Indicator [VSDC]       00 <tr< td=""><td></td><td></td><td></td></tr<>			
b7 - International cashback NOT allowed           9F 08         Application Version Number         00 96           9F 00         Issuer Action Code - Default         FC 50 AC 88 00           9F 0E         Issuer Action Code - Denial         00 00 00 00 00           9F 01         Issuer Action Code - Online         FC 70 BC 98 00           9F 10         Issuer Application Data [VSDC]         xx xx 0A xx xx xx xx *           9F 11         Issuer Code Table Index         01           9F 12         Application Preferred Name         56 69 73 61 20 43 72 65 64 69 74 2           9F 13         Last Online Application Transaction Counter (ATC) Register         xx xx *           9F 17         Personal Identification Number (PIN)         00           7f 26         Application Cryptogram (AC)         xx xx xx xx xx xx xx xx *           9F 26         Application Transaction Counter (ATC)         80           9F 38         Processing Options Data Object List (PDOL)         9F 06 07           9F 44         Application Currency Exponent         92           9F 44         Application Currency Exponent         92           9F 52         Application Default Action [VSDC]         08 40 - USD           9F 55         Issuer Authentication Indicator [VSDC]         08 40 - USA           9F 55 <td></td> <td></td> <td></td>			
9F 08       Application Version Number       00       96         9F 0D       Issuer Action Code - Default       FC       50       AC 88       00         9F 0E       Issuer Action Code - Online       FC       70       BC 98       00         9F 0F       Issuer Action Code - Online       FC       70       BC 98       00         9F 10       Issuer Action Data [VSDC]       xx			
9F 0D       Issuer Action Code - Default       FC 50 AC 88 00         9F 0E       Issuer Action Code - Denial       00 00 00 00         9F 0F       Issuer Action Code - Online       FC 70 BC 98 00         9F 10       Issuer Application Data [VSDC]       xx xx 0A xx xx xx xx *         9F 11       Issuer Code Table Index       01         9F 12       Application Preferred Name       56 69 73 61 20 43 72 65 64 69 74 2         20 20 20 20 20 20 - 'Visa Credit'       xx xx *         9F 13       Last Online Application Transaction Counter (ATC) Register       00         9F 26       Application Cryptogram (AC)       xx xx xx xx xx xx xx xx *         9F 27       Cryptogram Information Data (CID)       80         9F 38       Processing Options Data Object List       9F 06 07         9F 44       Application Currency Exponent       02         9F 51       Application Currency Exponent       02         9F 54       Application Currency Code [VSDC]       08 40 - USD         9F 55       Application Indicator [VSDC]       08 40 - USA         9F 56       Issuer Authentication Indicator [VSDC]       08 40 - USA         9F 55       Contatless Counters Data Template       56         9F 56       Contatless Counters Data Template       57	9F 08	Application Version Number	
Or ObsDottorDottor9F 0EIssuer Action Code - Denial0000009F 0FIssuer Action Code - OnlineFC70BC98009F 10Issuer Application Data [VSDC]xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx			
OF OFIssuer Action Code - OnlineFC 70 BC 98 009F 0FIssuer Application Data [VSDC]xx xx 0A xx xx xx xx *9F 11Issuer Code Table Index019F 12Application Preferred Name56 69 73 61 20 43 72 65 64 69 74 2 20 20 20 20 - Visa Credit'9F 13Last Online Application Transaction Counter (ATC) Registerxx xx x9F 17Personal Identification Number (PIN) Try Counter009F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx xx *9F 36Application Transaction Counter (ATC)809F 37Processing Options Data Object List (PDOL)9F 06 079F 44Application Currency Exponent029F 45Application Default Action [VSDC]08 40 - USD9F 52Application Default Action [VSDC]08 40 - USD9F 55Lapplication Indicator [VSDC]08 40 - USA9F 55Contartless Counters Data Template009F 57Issuer Authentication Indicator [VSDC]08 40 - USA			
ofIssuer Application Data [VSDC]xxxx0Axxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx			
original product of primation product (POD)019F 11Issuer Code Table Index019F 12Application Preferred Name56 69 73 61 20 43 72 65 64 69 74 220 20 20 20 - 'Visa Credit'20 20 20 - 'Visa Credit'9F 13Last Online Application Transaction Counter (ATC) Registerxx xx *9F 17Personal Identification Number (PIN) Try Counter009F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx *9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xx xx *9F 38Processing Options Data Object List (PDOL)9F 06 079F 44Application Currency Exponent029F 45Transaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 99F 51Application Default Action [VSDC]08 40 - USD9F 52Application Default Action [VSDC]009F 55Issuer Authentication Indicator [VSDC]009F 56Issuer Authentication Indicator [VSDC]08 40 - USA9F 55Contactless Counters Data TemplateEBF 56Counters Data TemplateEBF 58Amounts Data Template			
9F 12       Application Preferred Name       56 69 73 61 20 43 72 65 64 69 74 2         9F 13       Last Online Application Transaction Counter (ATC) Register       xx xx *         9F 17       Personal Identification Number (PIN) Try Counter       00         9F 26       Application Cryptogram (AC)       xx xx xx xx xx xx xx *         9F 27       Cryptogram Information Data (CID)       80         9F 36       Application Transaction Counter (ATC)       xx xx *         9F 38       Processing Options Data Object List (PDOL)       9F 06 07         9F 44       Application Currency Exponent       02         9F 51       Application Default Action [VSDC]       08 40 - USD         9F 52       Application Indicator [VSDC]       08 40 - USA         9F 56       Issuer Authentication Indicator [VSDC]       00         9F 55       Contactless Counters Data Template       840 - USA         BF 55       Contactless Counters Data Template       85 57         BF 58       Amounts Data Template       85 58			
20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20 <td< td=""><td></td><td></td><td></td></td<>			
9F 13Last Online Application Transaction Counter (ATC) Register <b>xx xx *</b> 9F 17Personal Identification Number (PIN) Try Counter009F 26Application Cryptogram (AC) <b>xx xx </b>	51 12	Application referred Name	
Counter (ATC) Register9F 17Personal Identification Number (PIN) Try Counter009F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx xx xx9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xx xx xx9F 38Processing Options Data Object List (PDOL)9F 06 079F 44Application Currency Exponent029F 45Transaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 99F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]009F 57Issuer Country Code [VSDC]08 40 - USA9F 55Contactless Counters Data TemplateBF 55BF 57International Counters Data TemplateBF 58Amounts Data Template	9F 13	Last Online Application Transaction	
9F 17Personal Identification Number (PIN) Try Counter009F 26Application Cryptogram (AC) <b>xx xx xx xx xx xx xx xx</b>			
Try Counter9F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx xx xx xx9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xx xx *9F 38Processing Options Data Object List (PDOL)9F 06 079F 44Application Currency Exponent029F 45Transaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 9 1A 02 95 05 9C 01 9F 27 019F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]08 40 - USA9F 55Contactless Counters Data TemplateBF 56BF 56Counters Data TemplateBF 57BF 58Amounts Data TemplateBF 58BF 58Amounts Data Template	9F 17		00
9F 26Application Cryptogram (AC)xx xx			
9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xx xx *9F 38Processing Options Data Object List (PDOL)9F 06 079F 44Application Currency Exponent029F 47Transaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 99F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]08 40 - USA9F 55Contactless Counters Data Template840 - USABF 56Counters Data Template840 - USABF 57International Counters Data Template840 - USABF 58Amounts Data Template85	9F 26		xx xx xx xx xx xx xx xx *
9F 36Application Transaction Counter (ATC)xx xx *9F 38Processing Options Data Object List (PDOL)9F 06 079F 44Application Currency Exponent029F 47Transaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 99F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]009F 57Issuer Country Code [VSDC]08 40 - USA9F 55Contactless Counters Data TemplateBF 56Counters Data TemplateBF 57International Counters Data TemplateBF 58Amounts Data Template	9F 27		80
(PDOL)029F 44Application Currency Exponent029F 4FTransaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 91A 02 95 05 9C 01 9F 27 019F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]009F 57Issuer Country Code [VSDC]08 40 - USA9F 55Contactless Counters Data TemplateBF 56Counters Data TemplateBF 57International Counters Data TemplateBF 58Amounts Data Template	9F 36		
9F 44Application Currency Exponent029F 4FTransaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 91A 02 95 05 9C 01 9F 27 019F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]009F 57Issuer Country Code [VSDC]08 40 - USA9F 55Contactless Counters Data TemplateBF 56Counters Data TemplateBF 57International Counters Data TemplateBF 58Amounts Data Template	9F 38	Processing Options Data Object List	9F 06 07
9F 4FTransaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 99F 4FTransaction Log Format9F 02 06 5F 2A 02 9A 03 9F 36 02 91A 02 95 05 9C 01 9F 27 019F 51Application Currency Code [VSDC]08 40 - USD9F 52Application Default Action [VSDC VIS 1.5]00 00 00 00 00 009F 56Issuer Authentication Indicator [VSDC]009F 57Issuer Country Code [VSDC]08 40 - USA9F 55Contactless Counters Data TemplateBF 56Counters Data TemplateBF 57International Counters Data TemplateBF 58Amounts Data Template			
9F 4F       Transaction Log Format       9F 02 06 5F 2A 02 9A 03 9F 36 02 9         1A 02 95 05 9C 01 9F 27 01       1A 02 95 05 9C 01 9F 27 01         9F 51       Application Currency Code [VSDC]       08 40 - USD         9F 52       Application Default Action [VSDC VIS 1.5]       00 00 00 00 00 00         9F 56       Issuer Authentication Indicator [VSDC]       00         9F 57       Issuer Country Code [VSDC]       08 40 - USA         BF 55       Contactless Counters Data Template       55         BF 57       International Counters Data Template       55         BF 58       Amounts Data Template       55	9F 44	Application Currency Exponent	02
IA0295059C019F27019F51Application Currency Code [VSDC]0840- USD9F52Application Default Action [VSDC VIS 1.5]00000000009F56Issuer Authentication Indicator [VSDC]00000000009F57Issuer Country Code [VSDC]0840- USABF55Contactless Counters Data Template555556BF56Counters Data Template565656BF57International Counters Data Template5757BF58Amounts Data Template5756	9F 4F		9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
9F 52       Application Default Action [VSDC VIS       00 00 00 00 00 00         1.5]       00 00 00 00 00 00       00         9F 56       Issuer Authentication Indicator [VSDC]       00         9F 57       Issuer Country Code [VSDC]       08 40 - USA         BF 55       Contactless Counters Data Template       00         BF 56       Counters Data Template       00         BF 57       International Counters Data Template       00         BF 58       Amounts Data Template       00		-	
1.5]         9F 56       Issuer Authentication Indicator [VSDC]       00         9F 57       Issuer Country Code [VSDC]       08 40 - USA         BF 55       Contactless Counters Data Template         BF 56       Counters Data Template         BF 57       International Counters Data Template         BF 58       Amounts Data Template			
9F 56       Issuer Authentication Indicator [VSDC]       00         9F 57       Issuer Country Code [VSDC]       08 40 - USA         BF 55       Contactless Counters Data Template       00         BF 56       Counters Data Template       08 40 - USA         BF 57       International Counters Data Template       00         BF 58       Amounts Data Template       08 40 - USA	9F 52		00 00 00 00 00 00
9F 57       Issuer Country Code [VSDC]       08 40 - USA         BF 55       Contactless Counters Data Template         BF 56       Counters Data Template         BF 57       International Counters Data Template         BF 58       Amounts Data Template			
BF 55       Contactless Counters Data Template         BF 56       Counters Data Template         BF 57       International Counters Data Template         BF 58       Amounts Data Template			
BF 56       Counters Data Template         BF 57       International Counters Data Template         BF 58       Amounts Data Template			08 40 - USA
BF 57International Counters Data TemplateBF 58Amounts Data Template			
BF 58 Amounts Data Template			
IDE EO I Drafila Cantrola Tampiata IDE 11 08 10 00 00 00 00 00 00 00 00 00 00 00 00			
	BF 59	Profile Controls Template	DF 11 0B 10 00 00 00 00 00 00 00 00 00
00 00 DF 12 0B 20 00 00 00 00 00 00 00 00 00 00 00 00			00 00 DF 12 0B 20 00 00 00 00 00 00 00 00
	BE 5A	AIP/AFL Entries Template	DF 11 0B 18 00 08 08 01 01 00 10 01
	DI JA	AII /AI E EIIIIES I EIIIPIAIE	
BF 5B Application Internal Data Template DF 01 02 C0 00 DF 02 01 F1	BF 5B	Application Internal Data Template	



# 4.3.3 Contact: CVM List - Visa Debit, AID A00000003101002

Cardho	Cardholder Verification Method List ('0201 4204 1E04 0005 5E00 1F00 0000')				
CVM	Verification Method	Conditions	If unsuccessful		
1	Online PIN	Unattended Cash	Fail		
2	Online PIN	Manual Cash	Next CVM		
3	Signature (paper)	Manual Cash	Fail		
4	Fail CVM Processing	Purchase with Cashback	Fail		
5	Signature (paper)	Always	Next CVM		
6	No CVM required	Always	Fail		
7	Fail CVM Processing	Always	Fail		

# 4.3.4 Contact: Application Tag data, AID A00000003101002

		* Tag value changes with card usage
Tag	Element name	Data Card v6.x
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	56 49 53 41 20 44 45 42 49 54 20 20
<b>F7</b>	Treat 0 Fruit alant Data	20 20 20 20 - 'VISA DEBIT' 47 61 73 90 01 01 01 35 D2 21 22 01
57	Track 2 Equivalent Data	19 55 94 58 00 00 0F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 30 33 20 20 20 20 - 'USA DEBIT/Test Card 03'
5F 24	Application Expiration Date	22 12 31
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VSDC]	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10 02
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 00 02 01 42 04 1E 04 02 05 5E 00 42 00 1F 00 00 00
	Elot	



Tag	Element name	Data Card v6.x
9F 07	Application Usage Control	FF 80
		BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback allowed
9F 08	Application Vargian Number	b7 - International cashback NOT allowed
9F 08 9F 0D	Application Version Number Issuer Action Code - Default	FC 50 AC 88 00
	Issuer Action Code - Denal	00 00 00 00 00
9F 0E	Issuer Action Code - Denial	FC 70 BC 98 00
9F 0F		xx xx 0A xx xx xx *
9F 10	Issuer Application Data [VSDC]	
9F 11	Issuer Code Table Index	56 69 73 61 20 44 65 62 69 74 20 20
9F 12	Application Preferred Name	20 20 20 20 - 'Visa Debit'
9F 13	Last Online Application Transaction	xx xx *
9115	Counter (ATC) Register	
9F 17	Personal Identification Number (PIN)	00
51 17	Try Counter	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List	9F 06 07
51 50	(PDOL)	
9F 44	Application Currency Exponent	02
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
01 11	Transaction Log Pormat	1A 02 95 05 9C 01 9F 27 01
9F 51	Application Currency Code [VSDC]	08 40 - USD
9F 52	Application Default Action [VSDC VIS	00 00 00 00 00 00
	1.5]	
9F 56	Issuer Authentication Indicator [VSDC]	00
9F 57	Issuer Country Code [VSDC]	08 40 - USA
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	DF 11 0B 10 00 00 00 00 00 00 00 00
		00 00 DF 12 0B 20 00 00 00 00 00 00
		00 00 00 00
BF 5A	AIP/AFL Entries Template	DF 11 0B 18 00 08 08 01 01 00 10 01 01 00 DF 12 0B 18 00 08 08 01 01 00
BF 5B	Application Internal Data Template	DF 01 02 C0 00 DF 02 01 F1
	Approation internal Data Template	



# 4.3.5 Contact: CVM List - U.S. Common Debit, AID A0000000980840

Cardho	Cardholder Verification Method List ('0201 0004 0205 4200 1F00 0000')							
CVM	Verification Method	Conditions	If unsuccessful					
1	Online PIN	Fail						
2	Fail CVM Processing	/M Processing Manual Cash						
3	Online PIN	Purchase with Cashback	Fail					
4	Online PIN Always		Next CVM					
5	No CVM required	Always	Fail					

# 4.3.6 Contact: Application Tag data, AID A000000980840

		* Tag value changes with card usage					
Tag	Element name	Data Card v6.x					
42	Issuer Identification Number (IIN)	47 61 73					
50	Application Label	55 53 20 44 45 42 49 54 20 20 20 20 20 20 20 20 20 20 20 20 - 'US DEBIT'					
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01 19 55 94 58 00 00 0F					
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35					
5F 20	Cardholder Name	55         53         41         20         44         45         42         49         54         2F         54         65           73         74         20         43         61         72         64         20         30         33         20         20           20         20         - 'USA DEBIT/Test Card 03'					
5F 24	Application Expiration Date	22 12 31					
5F 28	Issuer Country Code	08 40 - USA					
5F 2D	Language Preference	65 6E - 'en' (English)					
5F 30	Service Code	02 01					
5F 34	Application PAN Sequence Number	01					
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'					
82	Application Interchange Profile [VSDC]	18 00 BYTE 1:					
		<ul> <li>b7 - Offline SDA NOT supported</li> <li>b6 - Offline DDA NOT supported</li> <li>b5 - Cardholder verification supported</li> <li>b4 - Terminal risk mgmt to be performed</li> <li>b3 - Issuer authentication NOT supported using</li> <li>External Authenticate command</li> <li>b1 - Combined DDA / GEN AC NOT supported</li> <li>BYTE 2:</li> <li>b8 - Mag-stripe mode NOT supported</li> <li>b7 - Is NOT Mobile phone</li> </ul>					
84	Dedicated File (DF) Name	A0 00 00 00 98 08 40					
87	Application Priority Indicator	03					
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04					
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A					
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 02 01 00 04 02 05 42 00 1F 00 00 00					
94	Application File Locator (AFL)	08 01 01 00 10 02 02 00					
9F 07	Application Usage Control	AB 80					
9F 08	Application Version Number	00 96					
9F 0D	Issuer Action Code - Default	FC 50 AC 88 00					
9F 0E	Issuer Action Code - Denial	00 00 00 00 00					
9F 0F	Issuer Action Code - Online	FC 70 BC 98 00					
9F 10	Issuer Application Data [VSDC]	xx xx 0A xx xx xx xx *					
9F 11	Issuer Code Table Index	01					



Tag	Element name	Data Card v6.x
9F 12	Application Preferred Name	55 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20 - 'US Debit'
9F 13	Last Online Application Transaction	xx xx *
	Counter (ATC) Register	
9F 17	Personal Identification Number (PIN)	00
	Try Counter	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List (PDOL)	9F 06 07
9F 44	Application Currency Exponent	02
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
		1A 02 95 05 9C 01 9F 27 01
9F 51	Application Currency Code [VSDC]	08 40 - USD
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00 00 00
9F 56	Issuer Authentication Indicator [VSDC]	00
9F 57	Issuer Country Code [VSDC]	08 40 - USA
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	DF 11 0B 10 00 00 00 00 00 00 00 00
		00 00 DF 12 0B 20 00 00 00 00 00 00
	AID/AEL Entrice Templete	00 00 00 00 DF 11 0B 18 00 08 08 01 01 00 10 01
BF 5A	AIP/AFL Entries Template	01 00 DF 12 0B 18 00 08 08 01 01 00 10 01 01 00 DF 12 0B 18 00 08 08 01 01 00
		10 02 02 00
BF 5B	Application Internal Data Template	DF 01 02 C0 00 DF 02 01 F1



### 4.4 Test Card 04 - Visa, CO, 1-AID (Interlink), English, USA, USD

A contact-only, single-AID Visa Interlink debit card with an issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is \$10.00.

### 4.4.1 Contact: CVM List - Visa Interlink, AID A000000033010

Cardholder Verification Method List ('0203 1F03')								
CVM	Verification Method Conditions If unsuccessful							
1	Online PIN	Fail						
2	No CVM required	Terminal supports CVM Type	Fail					

# 4.4.2 Contact: Application Tag data, AID A000000033010

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
50	Application Label	49 4E 54 45 52 4C 49 4E 4B - 'INTERLINK'
57	Track 2 Equivalent Data	47 61 73 90 01 01 06 71 D2 21 22 21 13 50 61 46 89 00 0F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 06 71
5F 20	Cardholder Name	55         53         41         20         44         45         42         49         54         2F         54         65           73         74         20         43         61         72         64         20         30         34         20         20           20         20         - 'USA DEBIT/Test Card 04'         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         2
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 21
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile [VSDC]	1C 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 03 30 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 02 03 1F 03
8F	Certification Authority Public Key Index	92



Tag	Element name	Data Card v4.0
90	Issuer Public Key Certificate	3C 96 F7 65 8F BC 29 A2 02 F1 91 46 BD E9 21 66 B0 F6 22 1B BC CB 02 E3
		26 71 0B 9E 22 9D 16 FA E9 AD 0C 87
		4C 06 85 91 6E 19 F0 E3 26 93 EE 20
		1B CE 23 59 50 9A 6D 65 72 F8 EC 3F
		C3 73 12 6B 34 3F 9C B8 15 3D 61 B7
		EA B2 D4 2D E1 9D 56 08 31 85 A0 3D
		D1 4C 26 8D 40 DF 08 35 C5 5E AB FA 38 ED 28 BC E4 2C D0 01 3D A9 4F 80
		05 18 B7 53 C2 46 EF FB A0 8F D2 02
		9B AD 5D FC F0 DA F0 7B 7D 80 1C 46
		5F FD 25 2C 70 B9 21 53 B3 30 D9 5D
		CA 2F A1 FA AE 2D 01 68 A4 EA 8B 47
		5C D8 05 DC 32 AA 96 4C 17 BF CD 2C D5 D0 30 9A B0 EA 76 1B
92	Issuer Public Key Remainder	50 DA 20 DD A8 95 3B 69 3F ED 84 36
52	Issuel 1 ublic Rey Remainder	68 31 BA 1E EA 97 F7 8F 79 2A CF 8C
		B9 8F DF 01 49 A7 B7 8F DA 1C 49 67
93	Signed Static Application Data	3C 0C 66 F5 58 76 E7 3F 44 94 4B 52
		35 BA 27 35 7E E8 4F 93 8B 34 FA 2F
		06 BE C8 49 01 1B AE 57 8C F9 5E 92 8E 6E CC 62 72 7C C7 FD B3 0B 8C 88
		31 DE AB 60 2C E1 25 D1 43 90 02 C0
		C3 D8 C7 78 92 C9 7C 5A 57 73 1C 36
		D6 8E 5A 0F A5 1A DC 94 09 4F A9 AB
		02 DE DF 23 B4 60 F0 E1 9E 69 65 87
		38 E7 4E 36 B4 08 81 44 7A 2A E0 11 EE DE 0C 61 4B 41 B1 56 98 D1 55 63
		05 95 A5 75 0D B7 C5 B9 22 84 0B DA
		84 8B 61 D9 14 2A F8 35 7E 27 D4 92
		B7 03 F1 C6 E3 D2 3C AC DC 60 E3 C7
		8F 00 36 E1 0C A4 1B B7 53 6D 0F 4F
<u>.</u>		C4 18 6D 5B 3D A0 44 12
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 10 06 06 00 B0 01 01 00
9F 07	Application Usage Control	FF CO
	· + + · · · · · · · · · · · · · · · · ·	BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2: b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number	00 96
9F 0D	Issuer Action Code - Default	B0 50 80 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 50 80 98 00
9F 10	Issuer Application Data [VSDC]	xx xx A0 xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	49 6E 74 65 72 6C 69 6E 6B - 'Interlink'
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *
9F 17	Personal Identification Number (PIN) Try Counter	09
	Track 1 Discretionary Data	31 33 35 30 36 30 30 31 34 36 30 30
9F 1F	·	30 30 30 30 30 30 30 30 30 30 30 30 30
9F 1F 9F 26	Application Cryptogram (AC)	30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30<



Tag	Element name	Data Card v4.0
9F 32	Issuer Public Key Exponent	03
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 44	Application Currency Exponent	02
9F 46	ICC Public Key Certificate	2F CB B2 98 34 1B A8 B3 EB 7E D3 23
		63 AE 2A 27 D2 FF 39 79 D1 44 8A 87 5B D6 C1 22 8C 00 6D 3B 77 BC 8E E1
		5F 53 4D 54 3D F8 D8 52 60 DA FF E1
		0A 40 21 F2 55 5D 84 BA 17 48 3C 25
		28 09 A6 D3 8B 1E D3 4F 03 CD 85 60
		0D EA 4F 04 BF 7A 17 0C D3 61 1A 3A
		ED A8 AC FE E5 46 1E 70 9E 5C 82 3E 6D B4 D7 17 26 C3 78 88 93 19 61 ED
		6E DD 3F 97 4F 3E D2 92 8B 16 26 20
		5B EF 07 23 80 EF 6F 9E 0C 55 36 CF
		63 46 EE A2 4E FB 62 81 0F 9D 61 1F
		51 4F C1 A3 87 A4 1E 8D 51 72 95 CF
		19 1E FA D6 A4 ED 7E 16 00 9D D2 F9
	ICC Bublic Key Exponent	4C A4 A9 0E A7 C1 DA CF 03
9F 47 9F 49	ICC Public Key Exponent Dynamic Data Authentication Data	9F 37 04
	Object List (DDOL)	
9F 4A	Static Data Authentication Tag List	82
9F 51	Application Currency Code [VSDC]	08 40 - USD
9F 52	Application Default Action [VSDC VIS 1.5]	CO 00 00 00 00 00
9F 53	Consecutive Transaction Limit (International) [VSDC]	00
9F 54	Cumulative Total Transaction Amount	00 00 00 00 00 00
9F 56	Issuer Authentication Indicator [VSDC]	80
9F 57	Issuer Country Code [VSDC]	08 40 - USA
9F 58	Consecutive Transaction Counter Limit	00
9F 59	Consecutive Transaction Counter Upper Limit [VSDC]	00
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 00 00 00
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	00
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	10 00 D0 00
9F 6D	VLP Reset Threshold [VSDC]	00 00 00 00 00 00
9F 77	VLP Funds Limit [VSDC]	00 00 00 00 00 00
9F 78	VLP Single Transaction Limit [VSDC]	00 00 00 00 00 00
9F 79	VLP Available Funds [VSDC]	00 00 00 00 00 00
BF 55	Contactless Counters Data Template	DF 61 06 00 00 00 00 00 00 DF 71 06
		00 00 00 00 00 00 DF 41 06 00 00 00
		00 00 00 DF 51 06 00 00 00 00 00 00 00
DEFE	Countors Data Tamplata	DF 11 01 00 DF 21 01 00 DF 31 01 00 DF 11 01 01 DF 21 01 00 DF 31 01 00
BF 56 BF 57	Counters Data Template	DF 11 01 01 DF 21 01 00 DF 31 01 00 DF 11 01 01 DF 21 01 00 DF 31 01 00
DF 37	International Counters Data Template	DF 51 01 01 DF 21 01 00 DF 51 01 00
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00 DF 21 06
		00 00 00 00 00 00 DF 31 06 00 00 00
		00 00 00
BF 5B	Application Internal Data Template	DF 01 02 00 00



# 4.5 Test Card 05 - Mastercard, DI, 2-AID (Mastercard Debit+US Debit), English, USA, USD

A Dual Interface (Contact+Contactless), 2-AID Mastercard debit card with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is \$20.00.

### 4.5.1 Contact: CVM List - Mastercard debit, AID A000000041010

Cardhol	Cardholder Verification Method List ('4201 0205 5E03 4203 1F00')							
CVM	Verification Method Conditions If unsuccessful							
1	Online PIN	Next CVM						
2	Online PIN	Fail						
3	Signature (paper)	Next CVM						
4	Online PIN	Terminal supports CVM type	Next CVM					
5	No CVM required	Always	Fail					

## 4.5.2 Contact: Application Tag data, AID A000000041010

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	4D 41 53 54 45 52 43 41 52 44 20 44
		45 42 49 54 - 'MASTERCARD DEBIT'
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 21 22 01
<b><i><b></b></i> Γ Λ</b>	Application Drimony Account Number	14 83 59 49 00 0F 54 13 33 00 89 09 91 30
5A	Application Primary Account Number (PAN)	
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 30 35 20 20
<b>FF</b> 04	Analization Funitation Data	20 20 - 'USA DEBIT/Test Card 05' 22 12 31
5F 24	Application Expiration Date	xx xx xx *
5F 25	Application Effective Date	
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English) 02 01
5F 30	Service Code	11
5F 34	Application PAN Sequence Number	
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US' 18 00
82	Application Interchange Profile	BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported using
		External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported BYTE 2:
		b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14



Tag	Element name	Data Card v4.0
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 42 01 02 05
	List	5E 03 42 03 1F 00
94	Application File Locator (AFL)	10 01 03 00
94	Application File Locator (AFL)	10 01 03 00
9F 07	Application Usage Control	FF CO
		BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International services valid
05.00		b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00
9F 10	Issuer Application Data [M/Chip	xx xx A0 xx xx xx xx xx xx xx xx xx
	Advance]	XX XX XX XX XX XX *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 73 74 65 72 63 61 72 64 20 44 65 62 69 74 - 'Mastercard Debit'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN) Try Counter	03
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
		36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14
9F 6E	Third Party Data [Mastercard]	08 40 00 00 30 30 00
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00
		A0 00 00 00 04 10 10 00 00 00 00 00
		00 00 00 00 00 96 00 97 02 00 5A 5A
00		00 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	06 50 00
C5	Card Issuer Action Code (Contact) -	06 FB 00
00	Online [M/Chip Advance]	
C6	PIN Try Limit [M/Chip Advance]	03
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code [Mastercard]	08 40 - USD
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
55		L



Element name Card Issuer Action Code (Contactless) -	Da	ia										
	00	58	00									4.0
Default [M/Chip Advance]												
Online [M/Chip Advance]		-										
	08	00	00									
Accumulator 1 Currency Conversion												
Table [Mastercard]	00											
	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
			80	00	C6	02						
Default ARPC Response Code [M/Chip Advance]	00	10										
Application Control [M/Chip Advance]	00	00	80	00	E6	02						
Application File Locator (Contactless)												
		00	00	00	00	00	00	00	00			
Security Limits Status (Contact) [M/Chip Advance]	00											
Accumulator 1 Control (Contact) [M/Chip Advance]	C1											
Accumulator 1 Control (Contactless)	C1											
Accumulator 2 Control (Contact)	00											
Accumulator 2 Control (Contactless)	00											
Accumulator 2 Currency Code	08	40	- U	SD								
Accumulator 2 Currency Conversion Table [Mastercard]	00											
Accumulator 2 Lower Limit [Mastercard]	00	00	00	00	00	00						
Accumulator 2 Upper Limit [Mastercard]	00	00	00	00	00	00						
Counter 1 Control (Contact) [M/Chip	C1											
Counter 1 Control (Contactless) [M/Chip	C1											
Counter 2 Control (Contact) [M/Chip	00											
Counter 2 Control (Contactless) [M/Chip	00											
	00											
Counter 2 Upper Limit [Mastercard]	00											
MTA CVM (Contact) [M/Chip Advance]	00	00	00	00	00	00						
MTA CVM (Contactless) [M/Chip	00	00	00	00	00	00						
	08	40										
MTA NoCVM (Contact) [M/Chip	00	00	00	00	00	00						
MTA NoCVM (Contactless) [M/Chip	00	00	00	00	00	00						
Number Of Days Offline Limit [M/Chip	00	00										
Advancej Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00	00	00									
	Card Issuer Action Code (Contactless) - Online [M/Chip Advance] Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] Accumulator 1 Currency Conversion Table [Mastercard] Additional Check Table [Mastercard] Application Control [M/Chip Advance] Default ARPC Response Code [M/Chip Advance] Application File Locator (Contactless) Log Data Table [M/Chip Advance] Security Limits Status (Contact) [M/Chip Advance] Accumulator 1 Control (Contact) [M/Chip Advance] Accumulator 1 Control (Contact) [M/Chip Advance] Accumulator 2 Control (Contactless) [M/Chip Advance] Accumulator 2 Control (Contactless) [M/Chip Advance] Accumulator 2 Control (Contactless) [M/Chip Advance] Accumulator 2 Currency Code [Mastercard] Accumulator 2 Currency Conversion Table [Mastercard] Accumulator 2 Currency Conversion Table [Mastercard] Counter 1 Control (Contactless) [M/Chip Advance] Counter 1 Control (Contactless) [M/Chip Advance] Counter 1 Control (Contactless) [M/Chip Advance] Counter 2 Lower Limit [Mastercard] Counter 2 Lower Limit [Mastercard] Counter 2 Lower Limit [Mastercard] Counter 2 Lower Limit [Mastercard] MTA CVM (Contact) [M/Chip Advance] MTA NoCVM (Contact) [M/Chip Advance] MTA NoCVM (Contactless) [M/Chip Advance] MTA NoCVM (Contactless) [M/Chip Advance] NTA NoCVM (Contactless) [M/Chip Advance] NTA NoCVM (Contactless) [M/Chip Advance] NTA NoCVM (Contactless) [M/Chip Advance] NTA NoCVM (Contactless) [M/Chip Advance] Number Of Days Offline Limit [M/Chip Advance]	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]06Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]08Accumulator 1 Currency Conversion08Table [Mastercard]00Additional Check Table [Mastercard]00Application Control [M/Chip Advance]80Default ARPC Response Code [M/Chip Advance]00Application Control [M/Chip Advance]00Application File Locator (Contactless)08Log Data Table [M/Chip Advance]00Security Limits Status (Contact) [M/Chip Advance]01Accumulator 1 Control (Contact)01M/Chip Advance]02Accumulator 1 Control (Contactless)01[M/Chip Advance]00Accumulator 2 Control (Contactless)01[M/Chip Advance]00Accumulator 2 Control (Contactless)01[M/Chip Advance]00Accumulator 2 Currency Code08[Mastercard]00Accumulator 2 Currency Conversion03Table [Mastercard]00Accumulator 2 Lower Limit [Mastercard]00Accumulator 2 Control (Contact) [M/Chip01Advance]00Counter 1 Control (Contactless) [M/Chip01Advance]00Counter 2 Control (Contact) [M/Chip01Accumulator 2 Lower Limit [Mastercard]00Counter 2 Control (Contactless) [M/Chip00Advance]00MTA CUM (Contactless) [M/Chip00Advance]00MTA	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]06F8Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]0800Accumulator 1 Currency Conversion Table [Mastercard]0840Onina Check Table [Mastercard]0000Additional Check Table [Mastercard]0000Additional Check Table [Mastercard]0000Default ARPC Response Code [M/Chip Advance]0000Application Control [M/Chip Advance]0000Application Control [M/Chip Advance]0000Security Limits Status (Contactless)0802Log Data Table [M/Chip Advance]0000Accumulator 1 Control (Contactless)0000M/Chip Advance]0000Accumulator 2 Control (Contactless)0001[M/Chip Advance]0000Accumulator 2 Control (Contactless)0000[M/Chip Advance]0000Accumulator 2 Currency Conversion0840Table [Mastercard]0000Accumulator 2 Lower Limit [Mastercard]0000Accumulator 2 Control (Contactless) [M/ChipC1Advance]0000Accumulator 2 Control (Contactless) [M/Chip01Accumulator 2 Lower Limit [Mastercard]0000Counter 1 Control (Contactless) [M/Chip01Advance]0000Counter 2 Control (Contactless) [M/Chip00Advance]0000MTA CVM (C	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]         06         F8         00           Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]         08         00         00         00           Accumulator 1 Currency Conversion Table [Mastercard]         00         00         00         00           Additional Check Table [Mastercard]         00         00         00         00         00           Additional Check Table [Mastercard]         00         00         00         00         00           Advance]         00         00         00         00         00         00         00           Application Control [M/Chip Advance]         00         00         00         00         00         00         00           Application File Locator (Contactless)         08         02         03         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]         06         F8         00           Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]         08         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         0	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]         06         F8         00         00           Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]         08         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         0	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]         06         F8         00           Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]         08         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         0	Card Issuer Action Code (Contactless) - Origner McChip Advance]       06       F8       00         Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]       08       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       0	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]       08       00       00         Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]       08       40       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       0	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]       08       00       00         Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]       08       40       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       0	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]       08       00       00       00         Decline [M/Chip Advance]       08       40       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00 <td>Card Issuer Action Code (Contactless) - Ofe F8 00         Online [M/Chip Advance]         Accumulator 1 Currency Conversion Table [Mastercard]       08 40 00 00 00 08 40 00 00 08 40 00         Additional Check Table [Mastercard]       00 00 00 0F FF FF FF FF FF FF FF FF FF F</td>	Card Issuer Action Code (Contactless) - Ofe F8 00         Online [M/Chip Advance]         Accumulator 1 Currency Conversion Table [Mastercard]       08 40 00 00 00 08 40 00 00 08 40 00         Additional Check Table [Mastercard]       00 00 00 0F FF FF FF FF FF FF FF FF FF F



Tag	Element name	Data Card v4.0
DF 2A	Accumulator 2 CVR Dependency Data	
	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2F	Counter 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 30	Interface Enabling Switch [M/Chip	03
	Advance]	
DF 35	Security Limits Status (Contactless)	00
	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	00
	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
DE 10	Advance]	10 01 01 00
DF 40	Read Record Filter (Contactless)	10 01 01 00
	[M/Chip Advance]	20
DF 41	DS Management Control [M/Chip	20
L	Advance]	

# 4.5.3 Contact: CVM List - U.S. Maestro, AID A000000042203

Cardhol	Cardholder Verification Method List ('4205 4203 1F03 0000')							
CVM	Verification Method	Conditions If unsuccessful						
1	Online PIN	Purchase with Cashback	Next CVM					
2	Online PIN	Terminal supports CVM type	Next CVM					
3	No CVM required	Terminal supports CVM type	Fail					
4	Fail CVM Processing	Always	Fail					

## 4.5.4 Contact: Application Tag data, AID A000000042203

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 4D 41 45 53 54 52 4F - US
		MAESTRO'
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 21 22 01
	·	14 83 59 49 00 OF
5A	Application Primary Account Number	54 13 33 00 89 09 91 30
	(PAN)	
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 30 35 20 20
		20 20 - 'USA DEBIT/Test Card 05'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)



Tag	Element name	Data Card v4.0
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	11
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using
		External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 22 03
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14
8D	Card Rick Management Date Object List	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08
00	Card Risk Management Data Object List 2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 42 05 42 03
	List	1F 03 00 00 00 00
94	Application File Locator (AFL)	10 01 02 00 10 04 04 00
94	Application File Locator (AFL)	10 01 02 00 10 04 04 00
94 9F 07	Application Usage Control	FF C0
9F 07	Application Usage Control	BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00
9F 10	Issuer Application Data [M/Chip	xx xx A0 xx
	Advance]	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 4D 61 65 63 74 72 6F 20 20
		20 20 20 20 - 'US Maestro'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	03
	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 42 9F 4D	Transaction Log Entry	08 40 - 03D 08 0A
	LITANSAUTON LOY LITTY	



_		
Tag	Element name	Data Card v4.0
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
		36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14
9F 6E	Third Party Data [Mastaroard]	08 40 00 00 30 30 00
9F 6E 9F 7E	Third Party Data [Mastercard] Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00
9676	Application Life Cycle Data [Mastercard]	A0 00 00 00 04 10 10 00 00 00 00 00
		00 00 00 00 00 96 00 97 02 00 5A 5A
		00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) -	00 00 00
	Decline [M/Chip Advance]	
C4	Card Issuer Action Code (Contact) -	06 50 00
	Default [M/Chip Advance]	
C5	Card Issuer Action Code (Contact) -	06 FB 00
	Online [M/Chip Advance]	
C6	PIN Try Limit [M/Chip Advance]	03
C7	CDOL1 Related Data Length	42
	[Mastercard]	
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code	08 40 - USD
	[Mastercard]	
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) -	06 58 00
00	Default [M/Chip Advance]	
CE	Card Issuer Action Code (Contactless) -	06 F8 00
0L	Online [M/Chip Advance]	
CF	Card Issuer Action Code (Contactless) -	08 00 00
01	Decline [M/Chip Advance]	
D1	Accumulator 1 Currency Conversion	08 40 00 00 00 08 40 00 00 00 08 40
	Table [Mastercard]	00 00 00 08 40 00 00 00 08 40 00 00
		00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF
		FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip	00 10
	Advance]	
D7	Application Control [M/Chip Advance]	00 00 80 00 E6 02
D9	Application File Locator (Contactless)	08 02 02 00 08 04 04 00
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip	00
	Advance]	
DF 11	Accumulator 1 Control (Contact)	C1
	[M/Chip Advance]	
DF 12	Accumulator 1 Control (Contactless)	C1
	[M/Chip Advance]	
DF 14	Accumulator 2 Control (Contact)	00
	[M/Chip Advance]	
DF 15	Accumulator 2 Control (Contactless)	00
	[M/Chip Advance]	
DF 16	Accumulator 2 Currency Code	08 40 - USD
	[Mastercard]	
DF 17	Accumulator 2 Currency Conversion	08 40 00 00 00 08 40 00 00 00 08 40
	Table [Mastercard]	00 00 00 08 40 00 00 00 08 40 00 00
		00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip	C1
	Advance]	



Tag	Element name	Data Card v4.0
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	C1
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 1F DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
	Advance]	
DF 24	MTA Currency Code [M/Chip Advance]	08 40 - USD
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 29	Accumulator 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2A	Accumulator 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data	
	(Contactless) [M/Chip Advance] Interface Enabling Switch [M/Chip	03
DF 30	Advance]	
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip	00
	Advance]	
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	10 01 01 00
DF 41	DS Management Control [M/Chip Advance]	20

# 4.5.5 Contactless: CVM List - Mastercard debit, AID A000000041010

Cardholder Verification Method List ('0205 5E03 0203 1F03 0000')						
CVM	Verification Method Conditions If unsuccessful					
1	Online PIN	Unattended Cash	Next CVM			



2	Signature (paper)	Terminal supports CVM type	Next CVM
3	Online PIN	Terminal supports CVM type	Fail
4	No CVM required	Terminal supports CVM type	Fail
5	Fail CVM Processing	Always	Fail

# 4.5.6 Contactless: Application Tag data, AID A000000041010

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	4D 41 53 54 45 52 43 41 52 44 20 44 45 42 49 54 - 'MASTERCARD DEBIT'
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 21 22 01 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 91 30
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 34	Application PAN Sequence Number	11
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	<ul> <li>18 80</li> <li>BYTE 1:</li> <li>b7 - Offline SDA NOT supported</li> <li>b6 - Offline DDA NOT supported</li> <li>b5 - Cardholder verification supported</li> <li>b4 - Terminal risk mgmt to be performed</li> <li>b3 - Issuer authentication NOT supported using</li> <li>External Auth command</li> <li>b2 - On device Cardholder verification NOT</li> <li>supported</li> <li>b1 - Combined DDA / GEN AC NOT supported</li> <li>BYTE 2:</li> <li>b8 - M/Chip NOT supported</li> </ul>
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10
87		01
8C	Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 00 02 05 5E 03 02 03 1F 03 00 00
94	Application File Locator (AFL)	08 02 03 00
9F 07	Application Usage Control	FF C0 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid
		<ul> <li>b3 - International services valid</li> <li>b3 - International services valid</li> <li>b2 - ATMs valid</li> <li>b1 - Terminals other than ATMs valid</li> <li>BYTE 2:</li> <li>b8 - Domestic cashback allowed</li> <li>b7 - International cashback allowed</li> </ul>
9F 08	Application Version Number	<ul> <li>b3 - International services valid</li> <li>b2 - ATMs valid</li> <li>b1- Terminals other than ATMs valid</li> <li>BYTE 2:</li> <li>b8 - Domestic cashback allowed</li> </ul>



Tag	Element name	Da									Ca	ird v	4.0
9F 0E	Issuer Action Code - Denial				00								
9F 0F	Issuer Action Code - Online				80								
9F 10	Issuer Application Data [M/Chip					хx			XX	xx	XX	xx	XX
	Advance]		XX	XX	XX	xx	XX	^					
9F 11	Issuer Code Table Index	01				~-							
9F 12	Application Preferred Name					65						20	44
	Counter 1 Lower Limit [Meetercord]	65 00	62	69	/4	- 'N	aste	erca	IU D				
9F 14 9F 17	Counter 1 Lower Limit [Mastercard] Personal Identification Number (PIN)	00											
96 17	Try Counter	03											
9F 23	Counter 1 Upper Limit [Mastercard]	00											
9F 23 9F 26	Application Cryptogram (AC)		vv	~~	~~	xx	vv	vv	vv	*			
9F 20 9F 27		80	~~	лл	лл	~~	лл	лл	лл				
9F 27 9F 36	Cryptogram Information Data (CID)		xx	*									
9F 30 9F 42	Application Transaction Counter (ATC) Application Currency Code		40		90								
9F 42 9F 4A	Static Data Authentication Tag List	82	40	- 0	50								
9F 4A 9F 4D	Transaction Log Entry	-	0A										
9F 4D 9F 4F	Transaction Log Format	-	-		9 ਜ	02	06	5 F	2⊅	02	92	03	9 ह
96 46	Transaction Log Format					06							
			14										
9F 6E	Third Party Data [Mastercard]	08	40	00	00	30	30	00					
9F 7E	Application Life Cycle Data [Mastercard]					00							
						04							
						00							
C3	Card laguer Action Cada (Cantact)		00			00	00	00	00	00	00	00	00
63	Card Issuer Action Code (Contact) -	00	00	00									
C4	Decline [M/Chip Advance] Card Issuer Action Code (Contact) -	06	50	00									
64	Default [M/Chip Advance]	00	50	00									
C5	Card Issuer Action Code (Contact) -	06	FB	00									
05	Online [M/Chip Advance]												
C6	PIN Try Limit [M/Chip Advance]	03											
C7	CDOL1 Related Data Length	42											
01	[Mastercard]												
C8	CRM Country Code [Mastercard]	08	40	- U	SA								
C9	Accumulator 1 Currency Code		40										
00	[Mastercard]			-									
CA	Accumulator 1 Lower Limit [Mastercard]	00	00	00	00	00	00						
CB	Accumulator 1 Upper Limit [Mastercard]					00							
CD	Card Issuer Action Code (Contactless) -	00	58	00									
	Default [M/Chip Advance]												
CE	Card Issuer Action Code (Contactless) -	06	F8	00									
	Online [M/Chip Advance]												
CF	Card Issuer Action Code (Contactless) -	08	00	00									
	Decline [M/Chip Advance]												
D1	Accumulator 1 Currency Conversion					00							
	Table [Mastercard]		00	00	08	40	00	00	00	80	40	00	00
D0		00	00	0.0		चन	चन	चन	चन	E E	55	55	55
D3	Additional Check Table [Mastercard]					FF FF		ĽĽ	ĽĽ	ĽĽ	ĽĽ	ц.Г.	E.E.
D5	Application Control [M/Chip Advance]					C6							
D5 D6	Default ARPC Response Code [M/Chip		10	20									
20	Advance]												
D7	Application Control [M/Chip Advance]	00	00	80	00	Е6	02						
DF 02	Security Limits Status (Contact) [M/Chip	00											
51 02	Advance]												
		I											



# 4.5.7 Contactless: CVM List - U.S. Maestro, AID A000000042203

Cardhol	Cardholder Verification Method List ('0205 4203 1F03 0000')						
CVM	Verification Method Conditions If unsuccessful						
1	Online PIN	Purchase with Cashback	Fail				
2	Online PIN	Terminal supports CVM type	Next CVM				
3	No CVM required	Terminal supports CVM type	Fail				
4	Fail CVM Processing	Always	Fail				

# 4.5.8 Contactless: Application Tag data, AID A000000042203

Tag         Element name         Data         Card v4.0           42         Issuer Identification Number (IIN)         54         13         33           50         Application Label         55         53         20         40         14         45         53         54         52         4F         'US           57         Track 2 Equivalent Data         54         13         33         00         89         09         91         30         D2         21         22         01           58         Application Primary Account Number (PAN)         54         13         33         00         89         09         91         30           57         Application Expiration Date         22         12         31         55         53         40         57         57         Application Effective Date         xx xx x *         *         57         57         Application PAN Sequence Number         11         55         53         'US'           57         Issuer Country Code (alpha2 format)         55         53         'US'         *         55         13         'US'           82         Application Interchange Profile         18         80         BYT E 1: b7 - Offline DDA NO			* Tag value changes with card usage
50       Application Label       55       53       20       4D       41       45       53       54       52       4F       'US         57       Track 2 Equivalent Data       54       13       33       00       89       09       91       30       22       12       20       11       483       59       49       00       0F         5A       Application Primary Account Number (PAN)       54       13       33       00       89       09       91       30       22       12       20       11         5F 24       Application Expiration Date       22       12       31       33       00       89       09       91       30       55       53       20       40       05       24       40       14       83       59       49       00       0F       30       30       89       09       91       30       55       13       33       10       84       22       12       21       31       33       10       84       2       10       10       15       53       -'US'       11       55       53       -'US'       13       13       10       10       10	Tag	Element name	Data Card v4.0
MAESTRO'         MAESTRO'           57         Track 2 Equivalent Data         54 13 33 00 89 09 91 30 D2 21 22 01 14 83 59 49 00 0F           5A         Application Primary Account Number (PAN)         54 13 33 00 89 09 91 30           5F 24         Application Expiration Date         22 12 31           5F 25         Application Effective Date <b>xx xx xx *</b> 5F 26         Language Preference         65 6E - 'en' (English)           5F 34         Application PAN Sequence Number         11           5F 55         Issuer Country Code (alpha2 format)         55 53 - 'US'           82         Application Interchange Profile         BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b6 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - lssuer authentication NOT supported using External Auth command b2 - On device Cardholder verification NOT supported           84         Dedicated File (DF) Name         A0 00 00 00 4 22 03           87         Application Priority Indicator         02           80         Card Risk Management Data Object List 2 (CDOL1)         9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9F 34 03 9F 21 03 9F 7C 14           80         CardRisk Management Data Object List 2 (CDOL2)         91 0A 8A 02 95 05 9F 37 04 9F 4C 08 9F 72 14	42	Issuer Identification Number (IIN)	54 13 33
11       14       83       59       49       00       0F         5A       Application Primary Account Number (PAN)       54       13       33       00       89       09       91       30         5F       24       Application Expiration Date       22       12       31       57       25       Application Effective Date       xx xx **       *         5F       28       Issuer Country Code       08       40       - USA       57       25       13       33       00       80       - USA         5F       28       Issuer Country Code       08       40       - USA       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	50	Application Label	
Sr       Production Finitely Account Number       Production Construction Constructin Constructin Construction Construction Construction C	57	Track 2 Equivalent Data	
SF 25       Application Effective Date       xx xx xx *         SF 25       Application Effective Date       08 40 - USA         SF 20       Language Preference       65 6E - 'en' (English)         SF 34       Application PAN Sequence Number       11         SF 55       Issuer Country Code (alpha2 format)       55 53 - 'US'         82       Application Interchange Profile       18 80         BYTE 1:       b7 - Offline SDA NOT supported         b6 - Offline DDA NOT supported       b6 - Offline DDA NOT supported         b7 - Offline SDA NOT supported       b6 - Offline DDA NOT supported         b7 - Offline SDA NOT supported       b6 - Offline DDA NOT supported         b6 - Offline DDA NOT supported       b6 - Offline DDA NOT supported         b7 - Offline SDA NOT supported       b7 - Offline SDA NOT supported         b7 - Offline DDA NOT supported       b7 - Offline DDA NOT supported         b7 - Offline DDA NOT supported       b3 - Issuer authentication NOT supported using         External Auth command       b2 - On device Cardholder verification NOT supported         b1 - Combined DDA / GEN AC NOT supported       b1 - Combined DDA / GEN AC NOT supported         84       Dedicated File (DF) Name       A0 00 00 00 00 4 22 03         87       Application Priority Indicator       02         88 </td <td>5A</td> <td></td> <td>54 13 33 00 89 09 91 30</td>	5A		54 13 33 00 89 09 91 30
5F 25         Application Effective Date         xx xx xx *           5F 28         Issuer Country Code         08 40 - USA           5F 2D         Language Preference         65 6E - 'en' (English)           5F 34         Application PAN Sequence Number         11           5F 55         Issuer Country Code (alpha2 format)         55 53 - 'US'           82         Application Interchange Profile         BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Cond Risk Management Data Object List 2 (CDOL1)           8E         Card Risk Management Data Object List 2 (CDOL2)         91 0A 8A 02 95 05 9F 37 04 9F 4C 08 9F 7C 14	5F 24	Application Expiration Date	22 12 31
SF 2D       Language Preference       65       6E       'en' (English)         SF 34       Application PAN Sequence Number       11         SF 55       Issuer Country Code (alpha2 format)       55       53       'US'         82       Application Interchange Profile       18       80         BYTE 1:       b7       Offline SDA NOT supported       b6         b6       Offline SDA NOT supported       b6       Offline SDA NOT supported         b5       cardholder verification supported       b6       Offline SDA NOT supported         b6       Offline SDA NOT supported       b6       Offline SDA NOT supported         b7       Ondevice Cardholder verification supported using External Auth command       b2       cardholder verification NOT supported         b1       Combined DDA / GEN AC NOT supported       b1       combined DDA / GEN AC NOT supported         b1       combined DDA / GEN AC NOT supported       b1       combined DDA / GEN AC NOT supported         84       Dedicated File (DF) Name       A0       00       00       00       42       03         87       Application Priority Indicator       02       9F       02       06       9F       03       06       9F       14       9F       35       01	5F 25		xx xx xx *
5F 34Application PAN Sequence Number115F 55Issuer Country Code (alpha2 format)55 53 - 'US'82Application Interchange Profile18 80 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported b8 - M/Chip NOT supported b8 - M/Chip NOT supported84Dedicated File (DF) Name Application Priority Indicator0287Application Priority Indicator0280Card Risk Management Data Object List 2 (CDOL2)9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 7C 1481Card Risk Management Data Object List 2 (CDOL2)91 0A 8A 02 95 05 9F 37 04 9F 4C 08 9F 7C 1482Cardholder Verification Method (CVM) List00 00 00 00 00 00 00 00 00 00 00 00 02 05 42 03 01 01 00 00 00 00 00 00 00 00 00 00 00 0	5F 28	Issuer Country Code	08 40 - USA
5F 55Issuer Country Code (alpha2 format)5553-'US'82Application Interchange Profile1880BYTE 1: b7 - Offline DDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b3 - Issuer authentication NOT supported using External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - M/Chip NOT supported84Dedicated File (DF) NameA0000004220387Application Priority Indicator028CCard Risk Management Data Object List 2 (CDOL2)9F03069F1A0295055F8ECard Risk Management Data Object List 2 (CDOL2)910A8A0295059F24039F12038ECardholder Verification Method (CVM) List00000000000000020542038ECardholder Verification Method (CVM) List0000000000000002054203	5F 2D	Language Preference	65 6E - 'en' (English)
82Application Interchange Profile18 80 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b3 - Issuer authentication NOT supported using External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b3 - State authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b3 - State authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b3 - State authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b3 - State authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b3 - State authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b3 - State authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b3 - State authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b3 - State authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - COULL g1 GEN AC NOT supported b1 - COULL / 00 00 00 00 00 00 00 00 00 00 00 00 0	5F 34	Application PAN Sequence Number	
BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Supported using External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - M/Chip NOT supported84Dedicated File (DF) NameA0 00 00 00 00 4 22 0387Application Priority Indicator028CCard Risk Management Data Object List 2 (CDOL2)9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 148DCard Risk Management Data Object List 2 (CDOL2)91 0A 8A 02 95 05 9F 37 04 9F 4C 08 9F 32 00 00 00 00 00 00 00 00 00 00 00 00 00	5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
87       Application Priority Indicator       02         8C       Card Risk Management Data Object List 1 (CDOL1)       9F       02       06       9F       03       06       9F       1A       02       95       05       5F         2A       02       9A       03       9C       01       9F       37       04       9F       35       01         9F       45       02       9F       4C       08       9F       34       03       9F       21       03         9F       7C       14       7C       15			BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - M/Chip NOT supported
8C       Card Risk Management Data Object List 1 (CDOL1)       9F       02       06       9F       03       06       9F       1A       02       95       05       5F         2A       02       9A       03       9C       01       9F       37       04       9F       35       01         9F       45       02       9F       4C       08       9F       34       03       9F       21       03         8D       Card Risk Management Data Object List 2 (CDOL2)       9I       0A       8A       02       95       9F       37       04       9F       4C       08         8E       Cardholder Verification Method (CVM) List       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00	84		A0 00 00 00 04 22 03
1 (CDOL1)       2A 02 9A 03 9C 01 9F 37 04 9F 35 01         9F 45 02 9F 4C 08 9F 34 03 9F 21 03         9F 7C 14         8D       Card Risk Management Data Object List 2 (CDOL2)         8E       Cardholder Verification Method (CVM) List         1F 03 00 00 00 00 00       00 00 00 00			
BE         Cardholder Verification Method (CVM)         00 00 00 00 00 00 00 00 00 00 00 00 00		1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14
List 1F 03 00 00 00	8D		
94 Application File Locator (AFL) 08 02 02 00 08 04 04 00	8E		1F 03 00 00 00 00
	94	Application File Locator (AFL)	08 02 02 00 08 04 04 00



Tag	Element name	Data Card v4.0
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B4 50 84 00 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B4 70 84 80 00
9F 10	Issuer Application Data [M/Chip	xx xx A0 xx
91 10	Advance]	XX XX XX XX XX XX X
9F 11		01
	Issuer Code Table Index	55 53 20 4D 61 65 73 74 72 6F 20 20
9F 12	Application Preferred Name	55 53 20 4D 61 65 73 74 72 6F 20 20 20 20 20 20 - 'US Maestro'
0E 14	Counter 1 Lower Limit [Mastercord]	00
9F 14	Counter 1 Lower Limit [Mastercard]	03
9F 17	Personal Identification Number (PIN)	03
	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4A	Static Data Authentication Tag List	82
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
	5	36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14
9F 6E	Third Party Data [Mastercard]	08 40 00 00 30 30 00
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00
		A0 00 00 00 04 10 10 00 00 00 00 00
		00 00 00 00 00 96 00 97 02 00 5A 5A
00		00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) -	
- ·	Decline [M/Chip Advance]	
C4	Card Issuer Action Code (Contact) -	06 50 00
	Default [M/Chip Advance]	
C5	Card Issuer Action Code (Contact) -	06 FB 00
	Online [M/Chip Advance]	
C6	PIN Try Limit [M/Chip Advance]	03
C7	CDOL1 Related Data Length	42
	[Mastercard]	
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code	08 40 - USD
	[Mastercard]	
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) -	06 58 00
00	Default [M/Chip Advance]	
CE	Card Issuer Action Code (Contactless) -	06 F8 00
	Online [M/Chip Advance]	



Tag	Element name	Da	ta								Са	rd v	4.0
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	08	00	00									
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 00 00		•••	00 08	00 40	08 00	40 00	00 00	00 08	00 40	08 00	40 00
D3	Additional Check Table [Mastercard]	00 FF	00 FF	00 FF	FF FF	FF FF	FF FF	FF	FF	FF	FF	FF	FF
D5	Application Control [M/Chip Advance]	80	00	80	00	C6	02						
D6	Default ARPC Response Code [M/Chip Advance]	00	10										
D7	Application Control [M/Chip Advance]	00	00	80	00	E6	02						
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00											

## 4.6 Test Card 06 - Mastercard, CO, 1-AID (Maestro 2-Funding), English, NLD, EUR

A contact-only, single-AID Maestro debit card with 2 funding accounts with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is \$20.00.

#### 4.6.1 Contact: CVM List - Maestro Debit, AID A000000043060D0561111

Cardholder Verification Method List ('4103 0203 0000')					
CVM	Verification Method	Conditions	If unsuccessful		
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM		
2	Online PIN	Terminal supports CVM type	Fail		
3	Fail CVM Processing	Always	Fail		

#### 4.6.2 Contact: Application Tag data, AID A000000043060D0561111

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
50	Application Label	4D 41 45 53 54 52 4F 31 - 'MAESTRO1'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 01 0D 22 12 22 01 48 35 94 90 0F
5A	Application Primary Account Number (PAN)	67 99 99 89 00 00 02 01 OF
5F 20	Cardholder Name	55       53       41       20       44       65       62       69       74       2F       54       65         73       74       20       43       61       72       64       20       30       36       20       20         20       20       - 'USA DEBIT/Test Card 06'       20       20       20       20
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	05 28 - NLD
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	31



Tag	Element name	Data Card v4.0
82	Application Interchange Profile	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported using
		External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 30 60 D0 56 11 11
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
00	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 41 03 02 03
00	List	00 00 00 00 00 00 00 00 41 03 02 03
04		08 01 01 00
94	Application File Locator (AFL)	08 01 01 00
94	Application File Locator (AFL)	
9F 07	Application Usage Control	FF C0 BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	00 02
	Application Version Number	00 01 01 01
9F UA	Application Selection Registered	
	Proprietary Data	B0 50 BC 88 00
9F 0D	Issuer Action Code - Default	00 00 00 00 00
9F 0E	Issuer Action Code - Denial	
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 10	Issuer Application Data [M/Chip	xx xx A0 xx
	Advance]	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 65 73 74 72 6F 31 20 20 20 20
	• · · · · · · · · · · · · · · · · · · ·	20 20 20 - 'Maestro1'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	09
	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	09 78 - EUR
9F 4D	Transaction Log Entry	OB OA
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
51 41	Transaction Log Format	36 02 9F 52 06 DF 3E 01 9F 21 03 9F



Tog	Element nome	Do	to								Co	rdy	10
Tag 9F 7E	Element name			٥Þ	14	00	01	00	00	50		rd v	
9676	Application Life Cycle Data [Mastercard]				00								
		00	00	00	00	00	80	00	88	01	06	A5	5A
					00	00	00	00	00	00	00	00	00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00	00	00									
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	7F	50	00									
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	ЗF	FB	00									
C6	PIN Try Limit [M/Chip Advance]	09											
C7	CDOL1 Related Data Length	42											
<u></u>	[Mastercard]	0.5	~~~	NI									
<u>C8</u>	CRM Country Code [Mastercard]		28										
C9	Accumulator 1 Currency Code [Mastercard]		78										
CA	Accumulator 1 Lower Limit [Mastercard]				00								
СВ	Accumulator 1 Upper Limit [Mastercard]				00	00	00						
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	00	00	00									
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	00	00	00				_		_		_	
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00	00	00									
D1	Accumulator 1 Currency Conversion				00								
	Table [Mastercard]	00 00	00	00	09	78	00	00	00	09	78	00	00
D3	Additional Check Table [Mastercard]				FF FF			FF	FF	FF	FF	FF	FF
D5	Application Control [M/Chip Advance]	86	00	80	00	C6	02						
D6	Default ARPC Response Code [M/Chip Advance]	00	10										
D7	Application Control [M/Chip Advance]	00	00	00	00	00	00						
D9	Application File Locator (Contactless)												
DE	Log Data Table [M/Chip Advance]	00	00	00	00	00	00	00	00	00			
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00											
DF 11	Accumulator 1 Control (Contact)	C1											
DF 12	[M/Chip Advance] Accumulator 1 Control (Contactless)	00											
DF 14	[M/Chip Advance] Accumulator 2 Control (Contact)	00											
DF 15	[M/Chip Advance] Accumulator 2 Control (Contactless)	00											
	[M/Chip Advance]		99										
DF 16	Accumulator 2 Currency Code [Mastercard]												
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	00 00	00	00	00 09	99	00						
DF 18	Accumulator 2 Lower Limit [Mastercard]				00								
DF 19	Accumulator 2 Upper Limit [Mastercard]	00	00	00	00	00	00						
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1			_		_		_		_		
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	00											
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00											



<u> </u>	Element name	Data Card v4.0
	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
	Counter 2 Upper Limit [Mastercard]	00
	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
	MTA CVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
	MTA Currency Code [M/Chip Advance]	09 78 - EUR
	MTA NoCVM (Contact) [M/Chip	00 00 00 00 00 00
	Advance]	
	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
	Number Of Days Offline Limit [M/Chip	00 00
	Advance]	
	Accumulator 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
	Accumulator 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
	Accumulator 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2F	Counter 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 30	Interface Enabling Switch [M/Chip	01
	Advance]	
DF 35	Security Limits Status (Contactless)	00
	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	00
	(Contactless) [M/Chip Advance]	
	Read Record Filter (Contact) [M/Chip	00
	Advance]	
DF 40	Read Record Filter (Contactless)	00
	[M/Chip Advance]	
	DS Management Control [M/Chip	20
	Advance]	

# 4.6.3 Contact: CVM List - Maestro Debit, AID A000000043060D0562222

Cardhol	Cardholder Verification Method List ('4103 0203 0000')						
CVM	Verification Method	If unsuccessful					
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM				
2	Online PIN	Terminal supports CVM type	Fail				
3	Fail CVM Processing	Always	Fail				

4.6.4	Contact:	Application	Tag	data, AID	A000000043060D0562222
4.6.4	Contact:	Application	l ag	data, AID	A000000043060D0562222

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
50	Application Label	4D 41 45 53 54 52 4F 32 - 'MAESTRO2'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 02 8D 22 12 22 01 48 35 94 90 0F
5A	Application Primary Account Number (PAN)	67 99 99 89 00 00 02 02 8F
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 30 36 20 20 20 20 - 'USA DEBIT/Test Card 06'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	05 28 - NLD
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	32
82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b0 - EMV made NOT supported
		b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 30 60 D0 56 22 22
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 1 (CDOL1)	9F       02       06       9F       03       06       9F       1A       02       95       05       5F         2A       02       9A       03       9C       01       9F       37       04       9F       35       01         9F       45       02       9F       4C       08       9F       34       03       9F       21       03         9F       7C       14
8D	Card Risk Management Data Object List 2 (CDOL2)	91 OA 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 41 03 02 03 00 00 00 00
94	Application File Locator (AFL)	08 01 01 00
94	Application File Locator (AFL)	08 01 01 00
9F 07	Application Usage Control	FF C0 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7. International another than allowed
05.00	Application Marting Neurope	b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0A	Application Selection Registered Proprietary Data	00 01 01 01
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00



<b>T</b>	Electronic	
Tag	Element name	Data Card v4.0
9F 10	Issuer Application Data [M/Chip	xx xx A0 xx
9F 11	Advance] Issuer Code Table Index	01
9F 11 9F 12		4D 61 65 73 74 72 6F 32 20 20 20 20
96 12	Application Preferred Name	20 20 20 - 'Maestro2'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	03
0	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	09 78 - EUR
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
		36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 30 60 17 10 13 00 00
		00 00 00 00 00 80 00 17 10 13 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A
		00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) -	00 00 00
	Decline [M/Chip Advance]	
C4	Card Issuer Action Code (Contact) -	7F 50 00
	Default [M/Chip Advance]	
C5	Card Issuer Action Code (Contact) -	3F FB 00
	Online [M/Chip Advance]	
C6	PIN Try Limit [M/Chip Advance]	03
C7	CDOL1 Related Data Length	42
	[Mastercard]	
C8	CRM Country Code [Mastercard]	05 28 - NLD
C9	Accumulator 1 Currency Code	09 78 - EUR
	[Mastercard]	
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) -	00 00 00
	Default [M/Chip Advance]	
CE	Card Issuer Action Code (Contactless) -	00 00 00
~-	Online [M/Chip Advance]	
CF	Card Issuer Action Code (Contactless) -	00 00 00
DA	Decline [M/Chip Advance]	09 78 00 00 00 09 78 00 00 00 09 78
D1	Accumulator 1 Currency Conversion	00 00 00 09 78 00 00 09 78 00 00 09 78 00 00
	Table [Mastercard]	00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF
		FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	86 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip	00 10
<b>D</b> -	Advance]	
D7	Application Control [M/Chip Advance]	00 00 00 00 00 00
D9	Application File Locator (Contactless)	
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
<b>DF</b> 10		00
DF 12	Accumulator 1 Control (Contactless)	00



-		
Tag	Element name	Data Card v4.0
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	09 99
DF 17	Accumulator 2 Currency Conversion	09 99 00 00 00 09 99 00 00 00 99
	Table [Mastercard]	00 00 00 09 99 00 00 00 09 99 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	00
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contact) [M/Chip	00 00 00 00 00 00
DI 23	Advance]	
DF 24	MTA Currency Code [M/Chip Advance]	09 78 - EUR
DF 24	MTA NoCVM (Contact) [M/Chip	00 00 00 00 00 00
DF 23	Advance]	
DF 26	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data	00 00 00
01 20	(Contact) [M/Chip Advance]	
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
DF 2C	(Contactless) [M/Chip Advance]	00 00 00
	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data	00
DF 3D	(Contact) [M/Chip Advance] CVR Issuer Discretionary Data	00
	(Contactless) [M/Chip Advance]	



Tag	Element name	Data	Card v4.0
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00	
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00	
DF 41	DS Management Control [M/Chip Advance]	20	

# 4.7 Test Card 07 - Mastercard Int'I, CO, 2-AID (Credit+Debit), English, GBR, GBP

A contact-only, 2-AID International Mastercard combination credit & debit card with an Issuer Country Code of 'GBR' and Currency Code of 'GBP'.

The recommended transaction amount to generate a host approval is \$20.00.

### 4.7.1 Contact: CVM List - Mastercard credit, AID A000000041010

Cardho	Cardholder Verification Method List ('4103 4203 5E03 5F03 0000')				
CVM	Verification Method	Conditions	If unsuccessful		
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM		
2	Online PIN	Terminal supports CVM type	Next CVM		
3	Signature (paper)	Terminal supports CVM type	Next CVM		
4	No CVM required	Terminal supports CVM type	Fail		
5	Fail CVM Processing	Always	Fail		

### 4.7.2 Contact: Application Tag data, AID A000000041010

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
50	Application Label	4D 41 53 54 45 52 43 41 52 44 -
		'MASTERCARD'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 21 22 01
		14 83 59 49 00 OF
5A	Application Primary Account Number	54 13 33 00 89 02 00 60
	(PAN)	
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 30 37 20 20
		20 20 - 'USA DEBIT/Test Card 07'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 26 - GBR
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	11



_		
Tag	Element name	Data Card v4.0
82	Application Interchange Profile	18 00
		BYTE 1: b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported using
		External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2: b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
00	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 41 03 42 03
	List	5E 03 5F 03 00 00
94	Application File Locator (AFL)	08 01 01 00
94	Application File Locator (AFL)	08 01 01 00
9F 07	Application Usage Control	FF 00
		BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback NOT allowed
	Application Version Number	b7 - International cashback NOT allowed
9F 08 9F 0A		00 01 01 02
9F UA	Application Selection Registered	
	Proprietary Data	B0 50 BC 88 00
9F 0D	Issuer Action Code - Default	00 00 00 00 00
9F 0E	Issuer Action Code - Denial	B0 70 BC 98 00
9F 0F	Issuer Action Code - Online	xx xx A0 xx
9F 10	Issuer Application Data [M/Chip	xx xx x0 xx x
05 11	Advance]	01
9F 11	Issuer Code Table Index	4D 61 73 74 65 72 63 61 72 64 20 20
9F 12	Application Preferred Name	4D 61 73 74 65 72 63 61 72 64 20 20 20 20 20 20 - 'Mastercard'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	09
	Try Counter	
		00
9F 23	Counter 1 Upper Limit Mastercard	
9F 23 9F 26	Counter 1 Upper Limit [Mastercard]	xx xx xx xx xx xx xx *
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx * 80
9F 26 9F 27	Application Cryptogram (AC) Cryptogram Information Data (CID)	
9F 26 9F 27 9F 36	Application Cryptogram (AC) Cryptogram Information Data (CID) Application Transaction Counter (ATC)	80 xx xx *
9F 26 9F 27 9F 36 9F 42	Application Cryptogram (AC) Cryptogram Information Data (CID) Application Transaction Counter (ATC) Application Currency Code	80
9F 26 9F 27 9F 36 9F 42 9F 4D	Application Cryptogram (AC) Cryptogram Information Data (CID) Application Transaction Counter (ATC) Application Currency Code Transaction Log Entry	80 xx xx * 08 26 - GBP 0B 0A
9F 26 9F 27 9F 36 9F 42	Application Cryptogram (AC) Cryptogram Information Data (CID) Application Transaction Counter (ATC) Application Currency Code	80 xx xx * 08 26 - GBP



Tag	Element name	Da	ta								Са	rd v	/4.0
9F 7E	Application Life Cycle Data [Mastercard]			0в	14	00	01	00	00	50			
-							10						
							80						
C3	Card Issuer Action Code (Contact) -		00		00	00	00	00	00	00	00	00	00
03	Decline [M/Chip Advance]	00	00	00									
C4	Card Issuer Action Code (Contact) -	06	00	00									
04	Default [M/Chip Advance]												
C5	Card Issuer Action Code (Contact) -	06	00	00									
	Online [M/Chip Advance]												
C6	PIN Try Limit [M/Chip Advance]	09											
C7	CDOL1 Related Data Length	42											
	[Mastercard]												
C8	CRM Country Code [Mastercard]		26										
C9	Accumulator 1 Currency Code	08	26	- G	ΒP								
	[Mastercard]												
CA	Accumulator 1 Lower Limit [Mastercard]					00							
CB	Accumulator 1 Upper Limit [Mastercard]				00	00	00						
CD	Card Issuer Action Code (Contactless) -	00	00	00									
05	Default [M/Chip Advance]	00	00	0.0									
CE	Card Issuer Action Code (Contactless) -	00	00	00									
CF	Online [M/Chip Advance]	00	00	00									
CF	Card Issuer Action Code (Contactless) -	00	00	00									
D1	Decline [M/Chip Advance] Accumulator 1 Currency Conversion	08	26	00	00	00	08	26	00	00	00	08	26
DI	Table [Mastercard]						00						
		00											
D3	Additional Check Table [Mastercard]	00					FF	FF	FF	FF	FF	FF	FF
<b>D</b> -						FF							
D5	Application Control [M/Chip Advance]		10	80	00	C6	02						
D6	Default ARPC Response Code [M/Chip	00	10										
D7	Advance] Application Control [M/Chip Advance]	00	00	00	00	00	00						
D7 D9	Application File Locator (Contactless)	00	00	00	00	00	00						
DS	Log Data Table [M/Chip Advance]	00	00	00	00	00	00	00	00	00			
DF 02	Security Limits Status (Contact) [M/Chip	00											
D1 02	Advance]												
DF 11	Accumulator 1 Control (Contact)	C1											
	[M/Chip Advance]												
DF 12	Accumulator 1 Control (Contactless)	00											
	[M/Chip Advance]												
DF 14	Accumulator 2 Control (Contact)	00											
	[M/Chip Advance]												
DF 15	Accumulator 2 Control (Contactless)	00											
	[M/Chip Advance]												
DF 16	Accumulator 2 Currency Code	09	99										
	[Mastercard]												
DF 17	Accumulator 2 Currency Conversion						09						
	Table [Mastercard]	00	00	00	09	33	00	00	00	09	39	00	00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00	00	00	00	00	00						
DF 19	Accumulator 2 Upper Limit [Mastercard]					00							
DF 1A	Counter 1 Control (Contact) [M/Chip	C1	-	-	-	-	-						
,,	Advance]												
DF 1B	Counter 1 Control (Contactless) [M/Chip	00											
	Advance]												
		00											
DF 1D	Counter 2 Control (Contact) [M/Chip	00											



Tag	Element name	Data Card v4.0
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip	00 00 00 00 00 00
_	Advance]	
DF 24	MTA Currency Code [M/Chip Advance]	08 26 - GBP
DF 25	MTA NoCVM (Contact) [M/Chip	00 00 00 00 00 00
_	Advance]	
DF 26	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 27	Number Of Days Offline Limit [M/Chip	00 00
	Advance]	
DF 28	Accumulator 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 29	Accumulator 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2A	Accumulator 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2F	Counter 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 30	Interface Enabling Switch [M/Chip	01
	Advance]	
DF 35	Security Limits Status (Contactless)	00
	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	00
	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
<b>DF 10</b>	Advance]	
DF 40	Read Record Filter (Contactless)	00
	[M/Chip Advance]	20
DF 41	DS Management Control [M/Chip	20
	Advance]	

# 4.7.3 Contact: CVM List - Maestro debit, AID A000000043060

Cardhol	Cardholder Verification Method List ('4103 4203 0000')					
CVM	Verification Method	Conditions	If unsuccessful			
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM			
2	Online PIN	Terminal supports CVM type	Next CVM			
3	Fail CVM Processing	Always	Fail			



#### \* Tag value changes with card usage Element name Tag Data Card v4.0 50 **Application Label** 4D 41 45 53 54 52 4F - 'MAESTRO' 57 67 99 99 89 00 00 02 00 05 1D 22 12 Track 2 Equivalent Data 22 01 48 35 94 90 OF 67 99 99 89 00 00 02 00 05 1F 5A **Application Primary Account Number** (PAN) 55 53 41 20 44 65 62 69 74 2F 54 65 5F 20 Cardholder Name 73 74 20 43 61 72 64 20 30 37 20 20 20 20 - 'USA DEBIT/Test Card 07' 5F 24 Application Expiration Date 22 12 31 5F 25 **Application Effective Date XX XX XX \*** 5F 28 08 26 - GBR **Issuer Country Code** 5F 2D Language Preference 65 6E - 'en' (English) 02 20 5F 30 Service Code Application PAN Sequence Number 12 5F 34 18 00 82 Application Interchange Profile BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported A0 00 00 00 04 30 60 84 Dedicated File (DF) Name 87 **Application Priority Indicator** 02 8C Card Risk Management Data Object List 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 1 (CDOL1) 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 8D Card Risk Management Data Object List 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 2 (CDOL2) 00 00 00 00 00 00 00 00 41 03 42 03 8E Cardholder Verification Method (CVM) 00 00 00 00 List 08 01 02 00 94 Application File Locator (AFL) 08 01 02 00 94 Application File Locator (AFL) FF C0 9F 07 **Application Usage Control** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed 9F 08 **Application Version Number** 00 02 9F 0A Application Selection Registered 00 01 01 01 **Proprietary Data** 9F 0D Issuer Action Code - Default B0 50 BC 88 00 00 00 00 00 00 9F 0E **Issuer Action Code - Denial** B0 70 BC 98 00 9F 0F Issuer Action Code - Online

#### 4.7.4 Contact: Application Tag data, AID A000000043060



<b>.</b>	Electronic	
Tag	Element name	Data Card v4.0
9F 10	Issuer Application Data [M/Chip	xx xx A0 xx
05.44	Advance]	xx xx xx xx xx xx * 01
9F 11	Issuer Code Table Index	4D 61 65 73 74 72 6F 20 20 20 20 20 20
9F 12	Application Preferred Name	4D 61 65 73 74 72 6F 20 20 20 20 20 20 20 20 20 20 20 20 20
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	09
51 17	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 26 - GBP
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
		36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 30 60 00 00 00 00 00
		00 00 00 00 00 80 00 88 01 06 A5 5A
		00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) -	00 00 00
	Decline [M/Chip Advance]	
C4	Card Issuer Action Code (Contact) -	7F 50 00
	Default [M/Chip Advance]	
C5	Card Issuer Action Code (Contact) -	3F FB 00
	Online [M/Chip Advance]	
C6	PIN Try Limit [M/Chip Advance]	03
C7	CDOL1 Related Data Length	42
<u></u>	[Mastercard]	08 26 - GBR
C8 C9	CRM Country Code [Mastercard] Accumulator 1 Currency Code	08 26 - GBP
09	[Mastercard]	
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) -	00 00 00
	Default [M/Chip Advance]	
CE	Card Issuer Action Code (Contactless) -	00 00 00
	Online [M/Chip Advance]	
CF	Card Issuer Action Code (Contactless) -	00 00 00
	Decline [M/Chip Advance]	
D1	Accumulator 1 Currency Conversion	08 26 00 00 00 08 26 00 00 08 26
	Table [Mastercard]	00 00 00 08 26 00 00 00 08 26 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF
		FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	86 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip	00 10
	Advance]	
D7	Application Control [M/Chip Advance]	00 00 00 00 00
D9	Application File Locator (Contactless)	
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless)	00
	[M/Chip Advance]	



2 Control (Contact) ance] 2 Control (Contactless) ance] 2 Currency Code 2 Currency Conversion rcard] 2 Lower Limit [Mastercard] 2 Upper Limit [Mastercard] 2 Upper Limit [Mastercard] ontrol (Contactless) [M/Chip ontrol (Contactless) [M/Chip ontrol (Contactless) [M/Chip	09 00 00 00	99 99 00 00		09 00	99 00	00	99 00			00		99
ance] 2 Control (Contactless) ance] 2 Currency Code 2 Currency Conversion rcard] 2 Lower Limit [Mastercard] 2 Upper Limit [Mastercard] 2 Upper Limit [Mastercard] ontrol (Contact) [M/Chip ontrol (Contact) [M/Chip ontrol (Contactless) [M/Chip	00 09 00 00 00 00 00 00 00 00 00 00	99 00 00	00	09 00	99 00	00						
ance] 2 Currency Code 2 Currency Conversion rcard] 2 Lower Limit [Mastercard] 2 Upper Limit [Mastercard] ontrol (Contact) [M/Chip ontrol (Contact) [M/Chip ontrol (Contact) [M/Chip ontrol (Contactless) [M/Chip	09 00 00 00 00 00 C1 00 00	99 00 00	00	09 00	99 00	00						
2 Currency Code 2 Currency Conversion rcard] 2 Lower Limit [Mastercard] 2 Upper Limit [Mastercard] ontrol (Contact) [M/Chip ontrol (Contact) [M/Chip ontrol (Contact) [M/Chip ontrol (Contactless) [M/Chip	09 00 00 00 00 C1 00 00	99 00 00	00	09 00	99 00	00						
rcard] 2 Lower Limit [Mastercard] 2 Upper Limit [Mastercard] ontrol (Contact) [M/Chip ontrol (Contact) [M/Chip ontrol (Contact) [M/Chip ontrol (Contactless) [M/Chip	00 00 00 00 C1 00 00	00	00	09 00	99 00	00						
rcard] 2 Lower Limit [Mastercard] 2 Upper Limit [Mastercard] ontrol (Contact) [M/Chip ontrol (Contact) [M/Chip ontrol (Contact) [M/Chip ontrol (Contactless) [M/Chip	00 00 00 00 C1 00 00	00	00	09 00	99 00	00						
2 Upper Limit [Mastercard] ontrol (Contact) [M/Chip ontrol (Contactless) [M/Chip ontrol (Contact) [M/Chip ontrol (Contactless) [M/Chip	00 C1 00 00											
ontrol (Contact) [M/Chip ontrol (Contactless) [M/Chip ontrol (Contact) [M/Chip ontrol (Contactless) [M/Chip	C1 00 00	00	00	00	00	00						
ontrol (Contactless) [M/Chip ontrol (Contact) [M/Chip ontrol (Contactless) [M/Chip	00											
ontrol (Contact) [M/Chip ontrol (Contactless) [M/Chip	00											
ontrol (Contactless) [M/Chip												
· /····	00											
wer Limit [Mastercard]												
	00											
	00											
		00	00	00	00	00						
v Code [M/Chip Advance]	08	26	- G	BP								
					00	00						
(Contactless) [M/Chip	00	00	00	00	00	00						
ays Offline Limit [M/Chip	00	00										
	00	00	00									
1 CVR Dependency Data	00	00	00									
2 CVR Dependency Data	00	00	00									
2 CVR Dependency Data	00	00	00									
	00	00	00									
Chip Advance]												
[M/Chip Advance]												
1	00	00	00									
	01											
	00											
	00											
	00											
Discretionary Data	00											
	wer Limit [Mastercard] oper Limit [Mastercard] contact) [M/Chip Advance] contactless) [M/Chip cy Code [M/Chip Advance] I (Contactless) [M/Chip I (Contactless) [M/Chip Days Offline Limit [M/Chip 1 CVR Dependency Data Chip Advance] 2 CVR Dependency Data (M/Chip Advance] 2 CVR Dependency Data (M/Chip Advance] 2 CVR Dependency Data (M/Chip Advance] 2 CVR Dependency Data (M/Chip Advance] /R Dependency Data (M/Chip Advance] abling Switch [M/Chip ts Status (Contactless) ance] ts Status Common [M/Chip Discretionary Data (M/Chip Advance] Discretionary Data (M/Chip Advance]	oper Limit [Mastercard]00Contact) [M/Chip Advance]00Contactless) [M/Chip00Contactless) [M/Chip00Cy Code [M/Chip Advance]08I (Contact) [M/Chip00I (Contactless) [M/Chip00Days Offline Limit [M/Chip00Days Offline Limit [M/Chip001 CVR Dependency Data00Chip Advance]002 CVR Dependency Data00(M/Chip Advance]002 CVR Dependency Data00(M/Chip Advance]002 CVR Dependency Data00(M/Chip Advance]00/R Dependency Data00(M/Chip Advance]00(IM/Chip Advance]00(IM/Chip Advance]00(IM/Chip Advance]00(IM/Chip Advance]00(Discretionary Data00(Discretionary Data00(Chip Advance]00(Discretionary Data00(Discretionary Data00	oper Limit [Mastercard]00Contact) [M/Chip Advance]0000Contactless) [M/Chip0000Cy Code [M/Chip Advance]0826I (Contact) [M/Chip0000I (Contactless) [M/Chip0000Days Offline Limit [M/Chip00001 CVR Dependency Data0000Chip Advance]00002 CVR Dependency Data0000(M/Chip Advance]00002 CVR Dependency Data0000(M/Chip Advance]00002 CVR Dependency Data0000(M/Chip Advance]0000(M/Chip Advance]0000(R Dependency Data0000(M/Chip Advance]0000(IM/Chip Advance]00(S Status (Contactless)00(ance]00(Discretionary Data00(Discretionary Data00(Discretionary Data00	oper Limit [Mastercard]00Contact) [M/Chip Advance]0000Contactless) [M/Chip0000Contactless) [M/Chip0000Contact) [M/Chip0000I (Contact) [M/Chip0000I (Contactless) [M/Chip0000I (Contactless) [M/Chip0000Days Offline Limit [M/Chip00001 CVR Dependency Data0000Chip Advance]00002 CVR Dependency Data0000[M/Chip Advance]00002 CVR Dependency Data0000[M/Chip Advance]00002 CVR Dependency Data0000[M/Chip Advance]0000[M/Chip Advance]0000[M/Chip Advance]0000[M/Chip Advance]0000[M/Chip Advance]0000[M/Chip Advance]0000[M/Chip Advance]0000[M/Chip Advance]0000[M/Chip Advance]0000[M/Chip Advance]01[M/Chip Advance]01<	oper Limit [Mastercard]         00           Contact) [M/Chip Advance]         00         00         00         00           Contactless) [M/Chip         00         00         00         00         00           cy Code [M/Chip Advance]         08         26         - GBP           I (Contact) [M/Chip         00         00         00         00         00           I (Contactless) [M/Chip         00         00         00         00         00           I (Contactless) [M/Chip         00         00         00         00         00           Days Offline Limit [M/Chip         00         00         00         00         00           1 CVR Dependency Data         00         00         00         00         00           1 CVR Dependency Data         00         00         00         00         00           2 CVR Dependency Data         00         00         00         00         00           2 CVR Dependency Data         00         00         00         00         00           2 CVR Dependency Data         00         00         00         00         00           2 (M/Chip Advance]         00         00         00	oper Limit [Mastercard]         00           contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	oper Limit [Mastercard]         00           Contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	Oper Limit [Mastercard]         00           Contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	pper Limit [Mastercard]         00           contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	pper Limit [Mastercard]         00           contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	opper Limit [Mastercard]         00           contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00 <td< td=""><td>pper Limit [Mastercard]         00           Contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00</td></td<>	pper Limit [Mastercard]         00           Contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00



Tag	Element name	Data	Card v4.0
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00	
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00	
DF 41	DS Management Control [M/Chip Advance]	20	

## 4.8 Test Card 08 - U.S. Maestro, CO, 1-AID (2-Funding), English, USA, USD

A contact-only, single AID Mastercard (U.S. Maestro) debit card with 2 funding accounts with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is \$20.00.

#### 4.8.1 Contact: CVM List - Mastercard U.S. Checking, AID A000000042203D0561111

Cardhol	Cardholder Verification Method List ('0205 4203 1F03 0000')					
CVM	Verification Method	Conditions	If unsuccessful			
1	Online PIN	Purchase with Cashback	Fail			
2	Online PIN	Terminal supports CVM type	Next CVM			
3	No CVM required	Terminal supports CVM type	Fail			
4	Fail CVM Processing	Always	Fail			

#### 4.8.2 Contact: Application Tag data, AID A000000042203D0561111

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 43 48 45 43 4B 49 4E 47 -
		'US CHECKING'
57	Track 2 Equivalent Data	54 13 33 00 89 09 90 07 D2 21 22 20
		14 83 59 49 00 OF
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 90 07
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 30 38 20 20
		20 20 - 'USA DEBIT/Test Card 08'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	XX XX XX *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	31
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'



Tag         Element name         Data         Card v4.0           82         Application Interchange Profile         18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b7 - Cardholder verification supported b2 - Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported b2 - The Supported NOT Supported b1 - Combined DDA / GEN AC NOT supported b2 - The Supported DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combine DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combine DDA / GEN AC NOT supported D			
Application Historiange Frence       BYTE 1: br Offline DDA NOT supported be Cardholder verification NOT supported be Cardholder verification NOT supported be Cardholder verification NOT supported be Cardholder Verification NOT supported be Cardholder Verification NOT supported be Cardholder Verification NOT supported be Cardholder Verification NOT supported be Cardholder Verification NOT supported be Cardholder Verification NOT supported be Cardholder Verification NOT supported be Cardholder Verification Data Object List 2 (CDOL2)         8D       Card Risk Management Data Object List 2 (CDOL2)       90 00 00 00 00 00 00 00 00 00 00 00 00 0	Tag	Element name	
b7       Offline DDA NOT supported         b6       Offline DDA NOT supported         b5       Cardholder verification Supported         b1       Issuer authentication NOT supported         b2       On dovice Cardholder verification NOT         supported       b1         b1       Card Risk Management Data Object List         B7       Application Priority Indicator         01       Card Risk Management Data Object List         B7       Application Priority Indicator         B2       Card Risk Management Data Object List         1       (CDOL1)         B4       Dedicated File (DF) Name         B2       Card Risk Management Data Object List         1       (CDOL1)         B4       D 0         B2       Card Risk Management Data Object List         B4       D 0         B4       Application File Locator (AFL)         B4       Application Usage Control         B4       S7 = C14         B5       Intransactions valid         B6       Darnestic cash transactions valid         B7       Int Cash transactions valid         B6       Domestic ashtransactions valid         B7       Int Cash transactions valid      <	82	Application Interchange Profile	
b6 - Offline DDA NOT Supported           b5 - Cardholder verification supported using External Auth command.           b3 - Issuer authentication NOT Supported using External Auth command.           b2 - On device Cardholder verification NOT Supported           84         Dedicated File (DF) Name         A0 0 0 0 0 00 4 22 0 3 D 0 56 11 11           87         Application Priority Indicator         01           86         Card Risk Management Data Object List         9 f 02 0 6 9 F 03 0 6 9 F 1A 02 95 05 5 F 2A 02 9A 03 9 C 01 9 F 37 0 4 9 F 32 0 03 9 F 45 02 9 F 4C 08 9 F 33 4 03 9 F 21 03 9 F 7C 14           80         Card Risk Management Data Object List         91 0A 8A 02 9 5 05 9 F 37 0 4 9 F 4C 08 2 (CDOL2)           81         Cardnolder Verification Method (CVM) List         10 0 0 00 00 00 00 00 00 00 02 05 42 03 9 F 7C 14           82         Cardnolder Verification Method (CVM) List         96 01 01 00           94         Application File Locator (AFL)         98 01 01 00           94         Application File Locator (AFL)         98 01 01 00           97 07         Application Usage Control         B7 C 1 B7 C 1 B0 Domestic cash transactions valid b1 - Terminals conder valid b2 - International services valid b2 - International cashback allowed b7 - International			BYTE 1:
b5       Cardholder verification supported b3       lssuer authentication NOT supported b3         external Auth command b2       On device Cardholder verification NOT supported b1       Condevice Cardholder verification NOT supported b1         84       Dedicated File (DF) Name 7       Application Priority Indicator 10       01         87       Application Priority Indicator 1       01         80       Card Risk Management Data Object List 2 (CDOL1)       9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14         8D       Card Risk Management Data Object List 2 (CDOL2)       9F 00 00 00 00 00 00 00 00 00 00 00 00 00			
b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC 95 05 5F ca 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 7C 14         8C       Card Risk Management Data Object List 2 (CDOL2)       9F 7C 14 9F 02 9F 4C 08 20 9F 4C 08 2 (CDOL2)         8E       Cardholder Verification Method (CVM) List       00 00 00 00 00 00 00 00 00 00 00 00 20 55 42 03 1F 03 00 00         9F 07       Application File Locator (AFL)       08 01 01 00         9F 07       Application File Locator (AFL)       08 01 01 00         9F 07       Application Usage Control       PF C0 BYFE 1: b6 - Domestic cash transactions valid b7 - Intil cash transactions valid b6 - Domestic cashback allowed b7 - International services valid b3 - International services valid b4 - Domestic cashback allowed b7 - International services valid b3 - Internationa			
b3 - Issuer authentication NOT supported using         External Auth command         b2 - Con device Cardholder verification NOT supported         b1 - Combined DDA / GEN AC NOT supported         B4       Dedicated File (DF) Name         B4       Dedicated File (DF) Name         B4       Dedicated File (DF) Name         B4       Application Priority Indicator         B5 - EMV mode NOT supported         B7       Application Priority Indicator         B6       Card Risk Management Data Object List         97 45 02 9F 40 08 9F 34 03 9F 21 03         97 45 02 9F 40 08 9F 34 03 9F 21 03         97 70 14         B8       Card Risk Management Data Object List         91 08 BA 02 95 05 9F 37 04 9F 4C 08         2 (CDOL2)         B8       Card Risk Management Data Object List         96 07       Application File Locator (AFL)       08 01 01 00         94       Application File Locator (AFL)       08 01 01 00         97 07       Application Usage Control       BF C         80       Domestic cash transactions valid         97 07       Application Version Number       00 00         97 08       Application Version Number       00 02         97 09       Application Version Number       00 02			
External Auth command         b2 - On device Cardholder verification NOT         SUPORTED         84       Dedicated File (DF) Name         80       00 00 00 00 02 22 03 00 56 11 11         87       Application Priority Indicator         98       20 3 00 00 04 22 03 00 56 11 11         87       Application Priority Indicator         97       02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 44 03 9F 21 03 9F 7C 14         80       Card Risk Management Data Object List 2 (CDOL2)       9F 02 06 9F 03 06 00 00 00 00 02 05 42 03 1F 03 00 00         81       Cardholder Verification Method (CVM) List       1F 03 00 00         94       Application File Locator (AFL)       08 01 01 00         94       Application File Locator (AFL)       08 01 01 00         94       Application Usage Control       9F 7C 0 BYTE 1: 86 - Domestic cash transactions valid b5 - International socies valid b6 - Domestic cashback allowed b7 - Intrinational socies valid b7 - International socies valid b7 - Intransaction Number         9F			
b2 - On device Cardholder verification NOT supported           84         Dedicated File (DF) Name         A0 00 00 00 42 2 03 D0 56 11 11           7         Application Priority Indicator         01           8C         Card Risk Management Data Object List 1 (CDOL1)         9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14           8D         Card Risk Management Data Object List 2 (CDOL2)         9I 0A 8A 02 95 05 9F 37 04 9F 4C 08 2 (CDOL2)           8E         Cardholder Verification Method (CVM) List         00 00 00 00 00 00 00 00 00 00 00 00 00			b3 - Issuer authentication NOT supported using
supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported           84         Dedicated File (DF) Name A 00 00 00 00 42 20 3 D0 56 11 11 87         Application Priority Indicator 1 (CDOL1)         01           87         Card Risk Management Data Object List 1 (CDOL1)         9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4c 08 9F 34 03 9F 21 03 9F 7C 14           8D         Card Risk Management Data Object List 2 (CDOL2)         9I 03 8A 02 9F 05 9F 37 04 9F 4C 08 2 (CDOL2)           8E         Cardholder Verification Method (CVM) List         08 01 01 00           94         Application File Locator (AFL)         08 01 01 00           94         Application File Locator (AFL)         08 01 01 00           97 07         Application Usage Control         FF C0 BYTE 1: B3 - Domestic cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid b1 - International cashback allowed b2 - ATMs valid b1 - International cashback allowed b2 - ATMs valid b1 - Terminals other than ATMs valid b1 - Conter 1 Lower Limit [Mastercard]			
bi - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported           84         Dedicated File (DF) Name         A0 00 00 00 00 22 03 P0 56 11 11           87         Application Priority Indicator         01           8C         Card Risk Management Data Object List 1 (CDOL1)         P 02 06 9F 03 06 9F 1A 02 95 05 9F 2A 02 9A 03 9C 01 9F 37 04 9F 4C 08 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14           8D         Card Risk Management Data Object List 2 (CDOL2)         00 00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00           8E         Cardholder Verification Method (CVM) List         08 01 01 00           94         Application File Locator (AFL)         08 01 01 00           94         Application Usage Control         FF C0 BYTE 1: b8 - Domestic cash transactions valid b6 - Domestic cash valid b6 - Domestic cash valid b6 - Domestic cash valid b7 - Intri acash transactions valid b8 - Domestic cashback allowed b7 - International acashback allowed b7 - International acashback allowed b7 - International cashback allowed b7 -			
BYTE 2: b8 - EMV mode NOT supported           84         Dedicated File (DF) Name         A0 00 00 00 42 20 30 05 61 11           87         Application Priority Indicator         01           8C         Card Risk Management Data Object List 1 (CDOL1)         9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14           8D         Card Risk Management Data Object List 2 (CDOL2)         10 0 8A 02 95 05 9F 37 04 9F 4C 08 2 (CDOL2)           8E         Cardholder Verification Method (CVM) List         00 00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00           94         Application File Locator (AFL)         08 01 01 00           94         Application File Locator (AFL)         08 01 01 00           94         Application Usage Control         PF C 0 BYTE 1: b8 - Domestic cash transactions valid b5 - International goods valid b4 - Domestic services valid b5 - International goods valid b4 - Domestic cashback allowed           9F 07         Application Version Number         00 02           9F 08         Application Number         00 02           9F 09         Issuer Action Code - Default 9F 01         Bsuer Action Code - Default 90 00         00 00 00           9F 04         Issuer Action Code - Online 9F 11         18 Suer Action Code - Denial         00 00           9F 11         Issuer Action Code - Denial         00 00         00 <td></td> <td></td> <td></td>			
bel         EMV mode NOT supported           84         Dedicated File (DF) Name         A0 0 00 00 42 20 3 00 56 11 11           87         Application Priority Indicator         01           8C         Card Risk Management Data Object List         97 02 06 9F 03 06 9F 1A 02 95 05 5F 1 (CDOL1)         97 02 06 9F 03 06 9F 1A 03 9F 21 03 9F 7C 14           8D         Card Risk Management Data Object List         91 0A 8A 02 95 05 9F 37 04 9F 4C 08           2(CDOL2)         Card Risk Management Data Object List         91 0A 8A 02 95 05 9F 37 04 9F 4C 08           8E         CardCholder Verification Method (CVM) List         00 00 00 00 00 00 00 00 02 05 42 03           94         Application File Locator (AFL)         08 01 01 00           94         Application File Locator (AFL)         08 01 01 00           94         Application Usage Control         FF C0 BYTE 1: b8 - Domestic cash transactions valid b5 - International sorter than ATMs valid b4 - Domestic goods valid b5 - International sorter than ATMs valid b4 - Domestic cashback allowed           9F 00         Issuer Action Code - Default         80 50 9C 88 00           9F 01         Issuer Action Code - Denial         00 00 00 00 00           9F 11         Issuer Action Code - Online         80 70 9C 9B 80           9F 12         Application Preferred Name         55 53 20 43 68 65 63 6B 69 6E 67 - 'US Checking'           9F			
84         Dedicated File (DF) Name         A0         00         00         00         00         00         04         22         03         p0         56         11         11           87         Application Priority Indicator         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01			
37       Application Priority Indicator       01         8C       Card Risk Management Data Object List 1 (CDOL1)       19       90       20       69       97       30       69       97       30       69       97       30       69       97       30       69       97       30       69       97       30       69       97       30       69       97       30       39       97       10       97       30       39       97       10       39       97       10       39       97       10       39       97       10       39       97       10       39       97       10       39       97       10       39       97       10       39       97       10       39       97       10       39       97       10       39       97       10       30       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       <	8/	Dedicated File (DF) Name	A0 00 00 00 04 22 03 D0 56 11 11
SC       Card Risk Management Data Object List 1 (CDOL1)       9F       02       06       9F       03       06       9F       1A       02       95       05       5F         2A       02       9A       03       9C       01       9F       37       04       9F       20       03       9C       01       9F       37       04       9F       20       03       9F       7C       14       02       9F       02       06       9F       37       04       9F       20       03       9F       7C       14       03       9F       7C       14       03       03       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00			
000       1 (CDOL1)       2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14         8D       Card Risk Management Data Object List 2 (CDOL2)       91 0A 8A 02 95 05 9F 37 04 9F 4C 08 2 (CDOL2)         8E       Cardholder Verification Method (CVM) List       00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00         94       Application File Locator (AFL)       08 01 01 00         94       Application File Locator (AFL)       08 01 01 00         94       Application Usage Control       FF C0 BYTE 1: b8 - Domestic cash transactions valid b6 - Domestic goods valid b4 - Domestic services valid b5 - International goods valid b4 - Domestic services valid b2 - ATMs valid b1 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed         9F 08       Application Version Number       00 00       00 00 00         9F 09       Issuer Action Code - Default       B0 50 9C 88 00         9F 01       Issuer Action Code - Online       B0 70 9C 98 00         9F 10       Issuer Action Data [M/Chip Advance]       xx xx X0 xx xx xx xx xx xx xx         9F 11       Issuer Code Table Index       01         9F 12       Application Preferred Name       55 53 20 43 68 65 63 6B 69 6E 67 - US Checking'         9F 14       Counter 1 Lower Limit [Mastercard]       00         9F 27       Cryptogram Informat			
PF 45 02 9F 4C 08 9F 34 03 9F 21 03           8D         Card Risk Management Data Object List 2 (CDOL2)         91 0A 8A 02 95 05 9F 37 04 9F 4C 08           8E         Cardholder Verification Method (CVM) List         00 00 00 00 00 00 00 02 05 42 03           94         Application File Locator (AFL)         08 01 01 00           94         Application File Locator (AFL)         08 01 01 00           97 07         Application Usage Control         PF C 0 BYTE 1: b8 - Domestic cash transactions valid b5 - International services valid b4 - Domestic services valid b5 - International goods valid b4 - Domestic cashback allowed b7 - International goods valid b4 - Domestic cashback allowed b7 - International goods valid b4 - Domestic cashback allowed b7 - International cashback allowed b7	80		
9F         7C         14           8D         Card Risk Management Data Object List         91         0A         8A         02         95         05         9F         37         04         9F         4C         08           8E         Cardholder Verification Method (CVM)         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00		1 (CDOL1)	
8D         Card Risk Management Data Object List 2 (CDOL2)         91         0A         8A         02         95         05         9F         37         04         9F         4C         08           8E         Cardholder Verification Method (CVM) List         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         01         01         01         01         01         01         01         01         02         02         03         11         01         03         11         01         03         11         01         03         11         01			
2 (CDOL2)         8E       Cardholder Verification Method (CVM) List       00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00         94       Application File Locator (AFL)       08 01 01 00         94       Application File Locator (AFL)       08 01 01 00         97       Application Usage Control       FF C0         97       Application Usage Control       FF C0         97       Application Version Number       00 00 00 00 00 00 00         96       0 - Domestic cash transactions valid b5 - International goods valid b4 - Domestic goods valid b3 - International services valid b3 - International services valid b3 - International services valid b4 - Domestic cashback allowed b7 - International cashback allowed b7 - Internation Data [M/Chip Advance]	8D	Card Risk Management Data Object List	
8E         Cardholder Verification Method (CVM) List         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         01         10         00         00         01         10         00         00         01         10         00         00         01         10         10         10         10         10         10         10         10         10         10 </td <td></td> <td></td> <td></td>			
List1F 03 00 0094Application File Locator (AFL)08 01 01 0094Application File Locator (AFL)08 01 01 009F 07Application Usage ControlFF c0BYTE 1: b8 - Domestic cash transactions valid b7 - Int? cash transactions valid b6 - Domestic services valid b3 - International goods valid b4 - Domestic cash transactions valid b5 - International goods valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - Issuer Action Code - Default9F 08Application Version Number00009F 00Issuer Action Code - DefaultB0 50 9C 88 009F 01Issuer Action Code - OnlineB0 70 9C 98 009F 05Issuer Action Code - OnlineB0 70 9C 98 009F 10Issuer Action Code - OnlineB0 70 9C 98 009F 11Issuer Code Table Index019F 12Application Preferred Name55 53 20 43 68 65 63 6B 69 6E 67 - 'US Checking'9F 14Counter 1 Lower Limit [Mastercard]009F 23Counter 1 Upper Limit [Mastercard]009F 24Application Transaction Counter (ACC)xx xx * xx xx * x xx *9F 42Application Currency Code08 40 - USD9F 44FTransaction Log Format9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F	0	· · · ·	
94       Application File Locator (AFL)       08       01       01       00         94       Application File Locator (AFL)       08       01       01       00         9F 07       Application Usage Control       FF       C0       BYTE 1:       b8       Domestic cash transactions valid b6         9F 07       Application Usage Control       FF       C0       Domestic cash transactions valid b6         9F 07       Application Usage Control       FF       C0       Domestic cash transactions valid b7         9F 07       Application Version State       Domestic cash transactions valid b5       International services valid b3       International services valid b2         9F 08       Application Version Number       00       02       02         9F 00       Issuer Action Code - Default       B0       50       9C       80         9F 01       Issuer Action Code - Denial       00       00       00       00       00         9F 10       Issuer Action Code - Denial       01       00       00       00       00       00       9F       02       9F         9F 11       Issuer Action Code - Denial       00       00       00       00       00       9F       05       5       5	0E		
94       Application File Locator (AFL)       08 01 01 00         9F 07       Application Usage Control       FF C0 BYTE 1: b8 - Domestic cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Internati	0.4		
9F 07       Application 11/0 Ecodor (VI E)       FF C0         9F 07       Application Usage Control       FF C0         BYTE 1:       b8 - Domestic cash transactions valid       b7 - Int'l cash transactions valid         b7 - Int'l cash transactions valid       b6 - Domestic goods valid       b4 - Domestic services valid         b3 - International goods valid       b4 - Domestic services valid       b3 - International goods valid         b4 - Domestic services valid       b3 - International services valid       b3 - International services valid         b1 - Terminals other than ATMs valid       BYTE 2:       b8 - Domestic cashback allowed         b7 - International cashback allowed       b7 - International cashback allowed         b7 - International cashback allowed       b7 - International cashback allowed         9F 00       Issuer Action Code - Default       B0 50 9C 88 00         9F 01       Issuer Action Code - Online       B0 70 9C 98 00         9F 10       Issuer Application Data [M/Chip       xx         Advance]       xx         9F 11       Issuer Code Table Index       01         9F 12       Application Preferred Name       55 53 20 43 68 65 63 6B 69 6E 67 -         9F 14       Counter 1 Lower Limit [Mastercard]       00         9F 23			
BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b4 - Domestic services valid b3 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b7 - International cashback allowed b7 - International			
b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b2 - ATMS valid b1 - Terminals other than ATMS valid BYTE 2: b8 - Domestic cashback allowed b7 - International cash	9F 07	Application Usage Control	
b7Int'l cash transactions valid b6b6Domestic goods valid b5b7International goods valid b4b3International goods valid b3b3International services valid b3b3International services valid b1b3International services valid b2b3International services valid b1b4Domestic services valid b2b5Domestic cashback allowed b7b7International cashback allowed b7b7International cashback allowed b7b7Issuer Action Code - Defaultb000b7Issuer Action Code - Defaultb000b7Issuer Action Code - Onlineb710b7Issuer Action Code - Onlineb710b7Issuer Action Data [M/Chip xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx			
b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback			
b5International goods valid b4b4Domestic services valid b2b3International services valid b2b4Domestic cashback allowed b7b7009F 08Application Version Number9F 00Issuer Action Code - Default9F 00Issuer Action Code - Default9F 01Issuer Action Code - Default9F 02Issuer Action Code - Default9F 03Issuer Action Code - Default9F 04Issuer Action Code - Default9F 05Issuer Action Code - Online9F 10Issuer Action Code - Online9F 11Issuer Application Data [M/Chip Advance]9F 12Application Preferred Name9F 13Issuer Code Table Index9F 14Counter 1 Lower Limit [Mastercard]9F 15Outer 1 Upper Limit [Mastercard]9F 23Counter 1 Upper Limit [Mastercard]9F 24Application Cryptogram (AC)9F 36Application Transaction Counter (ATC)9F 36Application Currency Code9F 42Application Currency Code9F 44Transaction Log Entry9F 45Transaction Log Format9F 45Transaction Log Format9F 45Transaction Log Format			
b4 - Domestic services valid b3 - International services valid b2 - ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed9F 08Application Version Number00 029F 00Issuer Action Code - DefaultB0 50 9090 909F 01Issuer Action Code - Denial00 00 0000 009F 05Issuer Action Code - OnlineB0 70 9098 909F 10Issuer Action Code - OnlineB0 70 9098 909F 11Issuer Action Data [M/Chip xx xx xx Advance]xx xx			
b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 -			
b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed9F 08Application Version Number00 029F 0DIssuer Action Code - DefaultB0 50 9C 88 009F 0EIssuer Action Code - Denial00 00 00 00 009F 0FIssuer Action Code - OnlineB0 70 9C 98 009F 10Issuer Action Code - OnlineB0 70 9C 98 009F 11Issuer Application Data [M/Chip Advance]xx xx A0 xx xx xx xx xx xx xx xx xx xx xx9F 11Issuer Code Table Index019F 12Application Preferred Name019F 14Counter 1 Lower Limit [Mastercard]009F 23Counter 1 Upper Limit [Mastercard]009F 24Application Cryptogram (AC)xx xx xx xx xx xx xx xx *9F 27Cryptogram Information Data (CID)809F 36Application Currency Code08 40 - USD9F 44Transaction Log Entry09 009F 44Transaction Log Format9F 27 01 9F 02 06 5F 2A 02 9A 03 9F3602 9F 52 06 DF 3E 01 9F 21 03 9F			
BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed9F 08Application Version Number00 029F 0DIssuer Action Code - DefaultB0 50 9C 88 009F 0EIssuer Action Code - Denial00 00 00 00 009F 0FIssuer Action Code - OnlineB0 70 9C 98 009F 10Issuer Application Data [M/Chip Advance]xx xx A0 xx			
b8 - Domestic cashback allowed b7 - International cashback allowed9F 08Application Version Number00029F 0DIssuer Action Code - DefaultB0509C88009F 0EIssuer Action Code - Denial00000000009F 0FIssuer Action Code - OnlineB0709C98009F 10Issuer Application Data [M/Chip Advance]xx xx A0xx xx xxxx xx A09F 11Issuer Code Table Index01019F129F 12Application Preferred Name555320436865636B96E679F 14Counter 1 Lower Limit [Mastercard]00000000979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797979797<			b1- Terminals other than ATMs valid
b7 - International cashback allowed           9F 08         Application Version Number         00 02           9F 0D         Issuer Action Code - Default         B0 50 9C 88 00           9F 0E         Issuer Action Code - Denial         00 00 00 00 00           9F 0F         Issuer Action Code - Online         B0 70 9C 98 00           9F 10         Issuer Action Data [M/Chip Advance]         xx xx A0 xx			BYTE 2:
9F 08       Application Version Number       00 02         9F 0D       Issuer Action Code - Default       B0 50 9C 88 00         9F 0E       Issuer Action Code - Denial       00 00 00 00 00         9F 0F       Issuer Action Code - Online       B0 70 9C 98 00         9F 10       Issuer Application Data [M/Chip       xx xx A0 xx			b8 - Domestic cashback allowed
9F 0D       Issuer Action Code - Default       B0 50 9C 88 00         9F 0E       Issuer Action Code - Denial       00 00 00 00         9F 0F       Issuer Action Code - Online       B0 70 9C 98 00         9F 10       Issuer Application Data [M/Chip       xx xx A0 xx			
9F 0E       Issuer Action Code - Denial       00 00 00 00 00         9F 0F       Issuer Action Code - Online       B0 70 9C 98 00         9F 10       Issuer Application Data [M/Chip Advance]       xx xx A0 xx			00 02
9F 0FIssuer Action Code - OnlineB0 70 9C 98 009F 10Issuer Application Data [M/Chip Advance]xx xx A0 xx	9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
9F 10Issuer Application Data [M/Chip Advance]xx xx A0 xx	9F 0E	Issuer Action Code - Denial	00 00 00 00 00
Advance]       xx xx xx xx xx xx xx xx xx *         9F 11       Issuer Code Table Index       01         9F 12       Application Preferred Name       55 53 20 43 68 65 63 6B 69 6E 67 - 'US Checking'         9F 14       Counter 1 Lower Limit [Mastercard]       00         9F 17       Personal Identification Number (PIN) Try Counter       03         9F 23       Counter 1 Upper Limit [Mastercard]       00         9F 26       Application Cryptogram (AC)       xx         9F 36       Application Transaction Counter (ATC)       80         9F 42       Application Currency Code       08 40 - USD         9F 4D       Transaction Log Entry       0B 0A         9F 4F       Transaction Log Format       9F 27 01 9F 02 06 5F 2A 02 9A 03 9F         36 02 9F 52 06 DF 3E 01 9F 21 03 9F	9F 0F	Issuer Action Code - Online	B0 70 9C 98 00
Advance]       xx xx xx xx xx xx xx xx xx *         9F 11       Issuer Code Table Index       01         9F 12       Application Preferred Name       55 53 20 43 68 65 63 6B 69 6E 67 - 'US Checking'         9F 14       Counter 1 Lower Limit [Mastercard]       00         9F 17       Personal Identification Number (PIN) Try Counter       03         9F 23       Counter 1 Upper Limit [Mastercard]       00         9F 26       Application Cryptogram (AC)       xx         9F 36       Application Transaction Counter (ATC)       80         9F 42       Application Currency Code       08 40 - USD         9F 4D       Transaction Log Entry       0B 0A         9F 4F       Transaction Log Format       9F 27 01 9F 02 06 5F 2A 02 9A 03 9F         36 02 9F 52 06 DF 3E 01 9F 21 03 9F			xx xx A0 xx
9F 11       Issuer Code Table Index       01         9F 12       Application Preferred Name       55 53 20 43 68 65 63 6B 69 6E 67 - 'US Checking'         9F 14       Counter 1 Lower Limit [Mastercard]       00         9F 17       Personal Identification Number (PIN) Try Counter       03         9F 23       Counter 1 Upper Limit [Mastercard]       00         9F 26       Application Cryptogram (AC)       xx xx xx xx xx xx xx xx *         9F 27       Cryptogram Information Data (CID)       80         9F 36       Application Currency Code       08 40 - USD         9F 42       Application Log Entry       0B 0A         9F 4F       Transaction Log Format       9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F			
9F 12       Application Preferred Name       55       53       20       43       68       65       63       68       69       6E       67       -         9F 14       Counter 1 Lower Limit [Mastercard]       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00	9F 11		01
9F 14Counter 1 Lower Limit [Mastercard]009F 17Personal Identification Number (PIN) Try Counter039F 23Counter 1 Upper Limit [Mastercard]009F 26Application Cryptogram (AC)xxxxxxxx9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xxxx*9F 42Application Currency Code0840USD9F 4DTransaction Log Entry0B0A9F 4FTransaction Log Format9F 27019F 02065F 2A029A039F36029F 5206DF 3E019F 21039F			-
9F 14       Counter 1 Lower Limit [Mastercard]       00         9F 17       Personal Identification Number (PIN) Try Counter       03         9F 23       Counter 1 Upper Limit [Mastercard]       00         9F 26       Application Cryptogram (AC)       xx		Application referred Name	
9F 17 Try CounterPersonal Identification Number (PIN) Try Counter039F 23Counter 1 Upper Limit [Mastercard]009F 26Application Cryptogram (AC) <b>xx xx xx xx xx xx xx xx</b>	9F 14	Counter 1 Lower Limit [Mastercard]	
Try Counter9F 23Counter 1 Upper Limit [Mastercard]009F 26Application Cryptogram (AC)xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx </td <td></td> <td></td> <td></td>			
9F 23Counter 1 Upper Limit [Mastercard]009F 26Application Cryptogram (AC)xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	91 17		
9F 26Application Cryptogram (AC)xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	05.00		00
9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC) <b>xx xx *</b> 9F 42Application Currency Code08 40 - USD9F 4DTransaction Log Entry0B 0A9F 4FTransaction Log Format9F 27 01 9F 02 06 5F 2A 02 9A 03 9F36 02 9F 52 06 DF 3E 01 9F 21 03 9F			
9F 36       Application Transaction Counter (ATC)       xx       xx       *         9F 42       Application Currency Code       08       40       - USD         9F 4D       Transaction Log Entry       0B       0A         9F 4F       Transaction Log Format       9F       27       01       9F       02       06       5F       2A       02       9A       03       9F         36       02       9F       52       06       DF       3E       01       9F       21       03       9F			
9F 42       Application Currency Code       08       40       - USD         9F 4D       Transaction Log Entry       0B       0A         9F 4F       Transaction Log Format       9F       27       01       9F       02       06       5F       2A       02       9A       03       9F         36       02       9F       52       06       DF       3E       01       9F       21       03       9F			
9F 4D         Transaction Log Entry         0B 0A           9F 4F         Transaction Log Format         9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F		••	
9F 4F         Transaction Log Format         9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F	9F 42	Application Currency Code	08 40 - USD
9F 4F         Transaction Log Format         9F 27 01 9F 02 06 5F 2A 02 9A 03 9F           36 02 9F 52 06 DF 3E 01 9F 21 03 9F	9F 4D	Transaction Log Entry	0B 0A
36 02 9F 52 06 DF 3E 01 9F 21 03 9F			9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
7C 14		U U U U U U U U U U U U U U U U U U U	36 02 9F 52 06 DF 3E 01 9F 21 03 9F
			7C 14



T		D -	1 -								0		1.0
Tag	Element name	Da		0-	4.4	0.0	01	0.0	0.0	5.0		rd v	
9F 7E	Application Life Cycle Data [Mastercard]				14 00								
					00								
					00								
C3	Card Issuer Action Code (Contact) -		00										
00	Decline [M/Chip Advance]												
C4	Card Issuer Action Code (Contact) -	06	00	00									
0.	Default [M/Chip Advance]												
C5	Card Issuer Action Code (Contact) -	06	00	00									
	Online [M/Chip Advance]												
C6	PIN Try Limit [M/Chip Advance]	03											
C7	CDOL1 Related Data Length	42											
-	[Mastercard]												
C8	CRM Country Code [Mastercard]	08	40	- U	SA								
C9	Accumulator 1 Currency Code	08	40	- U	SD								
	[Mastercard]												
CA	Accumulator 1 Lower Limit [Mastercard]	00	00	00	00	00	00						
СВ	Accumulator 1 Upper Limit [Mastercard]	00	00	00	00	00	00						
CD	Card Issuer Action Code (Contactless) -	00	00	00									
	Default [M/Chip Advance]												
CE	Card Issuer Action Code (Contactless) -	00	00	00									
	Online [M/Chip Advance]												
CF	Card Issuer Action Code (Contactless) -	00	00	00									
	Decline [M/Chip Advance]												
D1	Accumulator 1 Currency Conversion				00								
	Table [Mastercard]		00	00	08	40	00	00	00	80	40	00	00
<b>D</b> 0		00	~~	~~									
D3	Additional Check Table [Mastercard]				FF FF			F.F.	F.F.	F.F.	F.F.	F.F.	F.F.
D5	Application Control [M/Chip Advance]				00								
D6	Default ARPC Response Code [M/Chip		10				-						
00	Advance]												
D7	Application Control [M/Chip Advance]	00	00	00	00	00	00						
D9	Application File Locator (Contactless)												
DE	Log Data Table [M/Chip Advance]	00	00	00	00	00	00	00	00	00			
DF 02	Security Limits Status (Contact) [M/Chip	00											
02	Advance]												
DF 11	Accumulator 1 Control (Contact)	C1											
2	[M/Chip Advance]												
DF 12	Accumulator 1 Control (Contactless)	00											
	[M/Chip Advance]												
DF 14	Accumulator 2 Control (Contact)	00											
	[M/Chip Advance]												
DF 15	Accumulator 2 Control (Contactless)	00											
-	[M/Chip Advance]												
DF 16	Accumulator 2 Currency Code	09	99										
	[Mastercard]												
DF 17	Accumulator 2 Currency Conversion				00								
	Table [Mastercard]		00	00	09	99	00	00	00	09	99	00	00
	Assessment of the second se	00	0.0	0.0	00	0.0	00						
DF 18	Accumulator 2 Lower Limit [Mastercard]												
DF 19	Accumulator 2 Upper Limit [Mastercard]		00	00	00	00	00						
DF 1A	Counter 1 Control (Contact) [M/Chip	C1											
	Advance]	0.0											
DF 1B	Counter 1 Control (Contactless) [M/Chip	00											
	Advance]	0.0											
DF 1D	Counter 2 Control (Contact) [M/Chip	00											
	Advance]												



Tag	Element name	Data Card v4.0
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 24	MTA Currency Code [M/Chip Advance]	08 40 - USD
DF 25	MTA NoCVM (Contact) [M/Chip	00 00 00 00 00 00
5. 20	Advance]	
DF 26	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00
01 20	Advance]	
DF 27	Number Of Days Offline Limit [M/Chip	00 00
01 21	Advance]	
DF 28	Accumulator 1 CVR Dependency Data	00 00 00
01 20	(Contact) [M/Chip Advance]	
DF 29	Accumulator 1 CVR Dependency Data	00 00 00
01 20	(Contactless) [M/Chip Advance]	
DF 2A	Accumulator 2 CVR Dependency Data	00 00 00
01 2/1	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
01 20	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
01 20	(Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data	00 00 00
0, 20	(Contactless) [M/Chip Advance]	
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2F	Counter 2 CVR Dependency Data	00 00 00
2. 2.	(Contactless) [M/Chip Advance]	
DF 30	Interface Enabling Switch [M/Chip	01
2. 00	Advance]	
DF 35	Security Limits Status (Contactless)	00
2. 00	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
5. 0.	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	00
	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
	Advance]	
DF 40	Read Record Filter (Contactless)	00
	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
	Advance]	
L	· · · · · · · · · · · · · · · · · · ·	



# 4.8.3 Contact: CVM List - Mastercard U.S. Savings, AID A000000042203D0562222

Cardhol	Cardholder Verification Method List (0205 4203 1F03 0000')						
CVM	Verification Method	Conditions	If unsuccessful				
1	Online PIN	Purchase with Cashback	Fail				
2	Online PIN	Terminal supports CVM type	Next CVM				
3	No CVM required	Terminal supports CVM type	Fail				
4	Fail CVM Processing	Always	Fail				

## 4.8.4 Contact: Application Tag data, AID A000000042203D0562222

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 53 41 56 49 4E 47 53 -'US
		SAVINGS'
57	Track 2 Equivalent Data	54 13 33 00 89 09 90 15 D2 21 22 20 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 90 15
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 30 38 20 20
55.04	Application Expiration Data	20 20 - 'USA DEBIT/Test Card 08' 22 12 31
5F 24	Application Expiration Date	xx xx xx *
5F 25	Application Effective Date	
5F 28 5F 2D	Issuer Country Code	08 40 - USA 65 6E - 'en' (English)
5F 2D 5F 30	Language Preference Service Code	
5F 30	Application PAN Sequence Number	32
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00 BYTE 1:
84	Dedicated File (DF) Name	b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported A0 00 00 00 04 22 03 D0 56 22 22
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00
94	Application File Locator (AFL)	08 01 01 00
94	Application File Locator (AFL)	08 01 01 00



Tag	Element name	Data Card v4.0
9F 07	Application Usage Control	FF CO
01 01	Application deage control	BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
		00 00 00 00 00
9F 0E	Issuer Action Code - Denial	
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00
9F 10	Issuer Application Data [M/Chip	XX XX A0 XX XX XX XX XX XX XX XX XX
	Advance]	xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 53 61 76 69 6E 67 73 - US
••••		Savings'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	03
96 17		
05.00	Try Counter	00
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	0B 0A
9F 4F		9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
96 46	Transaction Log Format	36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00
317		A0 00 00 00 04 22 03 00 00 00 00 00
		00 00 00 00 00 80 00 88 01 06 A5 5A
		00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) -	00 00 00
00	Decline [M/Chip Advance]	
C4	Card Issuer Action Code (Contact) -	06 00 00
64		
	Default [M/Chip Advance]	
C5	Card Issuer Action Code (Contact) -	06 00 00
	Online [M/Chip Advance]	
C6	PIN Try Limit [M/Chip Advance]	03
C7	CDOL1 Related Data Length	42
	[Mastercard]	
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code	08 40 - USD
	[Mastercard]	
C^		00 00 00 00 00 00
CA	Accumulator 1 Lower Limit [Mastercard]	
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) -	00 00 00
	Default [M/Chip Advance]	
CE	Card Issuer Action Code (Contactless) -	00 00 00
	Online [M/Chip Advance]	
CF	Card Issuer Action Code (Contactless) -	00 00 00
	Decline [M/Chip Advance]	



Tag	Element name	Da	ta								Са	rd v	4.0
D1	Accumulator 1 Currency Conversion			00	00	00	08	40	00	00			
	Table [Mastercard]	00 00	00	00	08	40	00	00	00	08	40	00	00
D3	Additional Check Table [Mastercard]					FF FF		FF	FF	FF	FF	FF	FF
D5	Application Control [M/Chip Advance]	80	00	80	00	C6	02						
D6	Default ARPC Response Code [M/Chip Advance]	00	10										
D7	Application Control [M/Chip Advance]	00	00	00	00	00	00						
D9	Application File Locator (Contactless)												
DE	Log Data Table [M/Chip Advance]	00	00	00	00	00	00	00	00	00			
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00											
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1											
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	00											
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00											
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00											
DF 16	Accumulator 2 Currency Code [Mastercard]	09	99										
DF 17	Accumulator 2 Currency Conversion	09	99	00	00	00	09	99	00	00	00	09	99
	Table [Mastercard]					99							
DF 18	Accumulator 2 Lower Limit [Mastercard]	00	00	00	00	00	00						
DF 19	Accumulator 2 Upper Limit [Mastercard]	00	00	00	00	00	00						
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1											
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	00											
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00											
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00											
DF 1F	Counter 2 Lower Limit [Mastercard]	00											
DF 21	Counter 2 Upper Limit [Mastercard]	00											
DF 22	MTA CVM (Contact) [M/Chip Advance]	00	00	00	00	00	00						
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00	00	00	00	00	00						
DF 24	MTA Currency Code [M/Chip Advance]	08	40	- U	SA								
DF 25	MTA NoCVM (Contact) [M/Chip Advance]					00	00						
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00	00	00	00	00	00						
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00	00										
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00	00	00									
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00	00	00									
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00	00	00									
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00	00	00									
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00	00	00									



Tag	Element name	Data	Card v4.0
DF 2D	Counter 1 CVR Dependency Data	00 00 00	
	(Contactless) [M/Chip Advance]		
DF 2E	Counter 2 CVR Dependency Data	00 00 00	
	(Contact) [M/Chip Advance]		
DF 2F	Counter 2 CVR Dependency Data	00 00 00	
	(Contactless) [M/Chip Advance]		
DF 30	Interface Enabling Switch [M/Chip	01	
	Advance]		
DF 35	Security Limits Status (Contactless)	00	
	[M/Chip Advance]		
DF 37	Security Limits Status Common [M/Chip	00	
	Advance]		
DF 3C	CVR Issuer Discretionary Data	00	
	(Contact) [M/Chip Advance]		
DF 3D	CVR Issuer Discretionary Data	00	
	(Contactless) [M/Chip Advance]		
DF 3F	Read Record Filter (Contact) [M/Chip	00	
	Advance]		
DF 40	Read Record Filter (Contactless)	00	
	[M/Chip Advance]		
DF 41	DS Management Control [M/Chip	20	
	Advance]		

## 4.9 Test Card 09 - Mastercard, CO, 3-AID (Credit+Maestrox2), English, USA, USD

A contact-only, 3-AID combination Mastercard Credit, Maestro and U.S. Maestro with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is \$20.00.

4.9.1	Contact:	<b>CVM List</b>	- Mastercard	credit, A	٩D	A000000041010
-------	----------	-----------------	--------------	-----------	----	---------------

Cardho	Cardholder Verification Method List ('4103 4203 5E03 1F00 0000')				
CVM	Verification Method	Conditions	If unsuccessful		
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM		
2	Online PIN	Terminal supports CVM type	Next CVM		
3	Signature (paper)	Terminal supports CVM type	Next CVM		
4	No CVM required	Terminal supports CVM type	Fail		
5	Fail CVM Processing	Always	Fail		

### 4.9.2 Contact: Application Tag data, AID A000000041010

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
50	Application Label	4D 41 53 54 45 52 43 41 52 44 - 'MASTERCARD'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 21 22 01 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 02 00 60



Tag	Element name	Data Card v4.0
5F 20	Cardholder Name	55 41 54 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 30 39 20 20
		20 20 - 'USA DEBIT/Test Card 09'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	11
82	Application Interchange Profile	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported using
		External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported BYTE 2:
		b TTE 2. b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
00	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 00 41 03 42 03 5E 03 1F 00 00 00
	List	
94	Application File Locator (AFL)	08 01 01 00 08 01 01 00
94	Application File Locator (AFL)	FF 00
9F 07	Application Usage Control	BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback NOT allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 10	Issuer Application Data [M/Chip	xx xx A0 xx
	Advance]	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 73 74 65 72 63 61 72 64 20 20
	Counter 1 Lower Limit IMasterson 1	20 20 20 20 - 'Mastercard' 00
9F 14	Counter 1 Lower Limit [Mastercard]	
9F 17	Personal Identification Number (PIN)	09
05.00	Try Counter	00
9F 23	Counter 1 Upper Limit [Mastercard]	00



Tag	Element name	Data Card v4.0
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USA
9F 4D	Transaction Log Entry	OB OA
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
		36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00
9676		A0 00 00 00 04 10 10 00 00 00 00 00 00
		00 00 00 00 00 80 00 88 01 06 A5 5A
		00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) -	00 00 00
	Decline [M/Chip Advance]	
C4	Card Issuer Action Code (Contact) -	1F 50 00
	Default [M/Chip Advance]	
C5	Card Issuer Action Code (Contact) -	3F FB 00
	Online [M/Chip Advance]	
C6	PIN Try Limit [M/Chip Advance]	09
C7	CDOL1 Related Data Length	42
	[Mastercard]	
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code	08 40 - USD
	[Mastercard]	
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
СВ	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) -	00 00 00
	Default [M/Chip Advance]	
CE	Card Issuer Action Code (Contactless) -	00 00 00
	Online [M/Chip Advance]	
CF	Card Issuer Action Code (Contactless) -	00 00 00
	Decline [M/Chip Advance]	
D1	Accumulator 1 Currency Conversion	08 40 00 00 00 08 40 00 00 00 08 40
	Table [Mastercard]	00 00 00 08 40 00 00 00 08 40 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF
05		FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	86 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip	00 10
	Advance]	
D7	Application Control [M/Chip Advance]	00 00 00 00 00 00
D9	Application File Locator (Contactless)	
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip	00
	Advance]	
DF 11	Accumulator 1 Control (Contact)	C1
	[M/Chip Advance]	
DF 12	Accumulator 1 Control (Contactless)	00
	[M/Chip Advance]	
DF 14	Accumulator 2 Control (Contact)	00
	[M/Chip Advance]	
DF 15	Accumulator 2 Control (Contactless)	00
	[M/Chip Advance]	
DF 16	Accumulator 2 Currency Code	09 99
	[Mastercard]	
DF 17	Accumulator 2 Currency Conversion	09 99 00 00 00 09 99 00 00 00 09 99
	Table [Mastercard]	00 00 00 09 99 00 00 00 09 99 00 00
		00



Tag	Element name	Data Card v4.0
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	00
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	08 40 - USD
DF 25	MTA NoCVM (Contact) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
	Number Of Days Offline Limit [M/Chip	00 00
DF 27	Advance]	
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data	00 00 00
DF 2F	(Contact) [M/Chip Advance] Counter 2 CVR Dependency Data	00 00 00
DF 30	(Contactless) [M/Chip Advance] Interface Enabling Switch [M/Chip	01
DF 35	Advance] Security Limits Status (Contactless)	00
DF 37	[M/Chip Advance] Security Limits Status Common [M/Chip	00
DF 3C	Advance] CVR Issuer Discretionary Data	00
DF 3D	(Contact) [M/Chip Advance] CVR Issuer Discretionary Data	00
DF 3F	(Contactless) [M/Chip Advance] Read Record Filter (Contact) [M/Chip	00
	Advance]	
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20
L	nuvanooj	1



# 4.9.3 Contact: CVM List - Maestro debit, AID A000000043060

Cardho	Cardholder Verification Method List ('4103 0203 0000')				
CVM	Verification Method	Conditions	If unsuccessful		
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM		
2	Online PIN	Terminal supports CVM type	Fail		
3	Fail CVM Processing	Always	Fail		

### 4.9.4 Contact: Application Tag data, AID A000000043060

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
42	Issuer Identification Number (IIN)	67 99 99
50	Application Label	4d 41 45 53 54 52 4f - 'MAESTRO'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 00 05 1D 22 12
		22 01 48 35 94 90 0F
5A	Application Primary Account Number (PAN)	67 99 99 89 00 00 02 00 05 1F
5F 20	Cardholder Name	55 41 54 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 30 39 20 20
		20 20 - 'USA DEBIT/Test Card 09'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	12
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported using
		External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 30 60
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 41 03 02 03
	List	00 00 00 00 00 00
94	Application File Locator (AFL)	08 01 02 00
94	Application File Locator (AFL)	08 01 02 00



Tag	Element name	Data Card v4.0
9F 07	Application Usage Control	FF CO
0. 0.	supplication beage benater	BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
		xx xx A0 xx xx xx xx xx xx xx xx xx
9F 10	Issuer Application Data [M/Chip	xx xx x0 xx x
05.11	Advance]	
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 65 73 74 72 6F 20 20 20 20 20 20
		20 20 20 - 'Maestro'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	03
	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
-		xx xx *
9F 36	Application Transaction Counter (ATC)	08 40 - USD
9F 42	Application Currency Code	
9F 4D	Transaction Log Entry	OB OA
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
		36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14
0F 7F		-
9F 7E	Application Life Cycle Data [Mastercard]	04         10         0B         14         00         01         00         50         17         79         00           A0         00         00         04         30         60         00         00         00         00         00
		00 00 00 00 00 00 80 00 88 01 06 A5 5A
		00 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) -	
03		
<u> </u>	Decline [M/Chip Advance]	17 50 00
C4	Card Issuer Action Code (Contact) -	1F 50 00
	Default [M/Chip Advance]	
C5	Card Issuer Action Code (Contact) -	3F FB 00
	Online [M/Chip Advance]	
C6	PIN Try Limit [M/Chip Advance]	03
C7	CDOL1 Related Data Length	42
-	[Mastercard]	
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code	08 40 - USD
0.9		
<u> </u>	[Mastercard]	
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) -	06 50 00
	Default [M/Chip Advance]	
CE	Card Issuer Action Code (Contactless) -	06 FB 00
	Online [M/Chip Advance]	
CF	Card Issuer Action Code (Contactless) -	00 00 00
	Decline [M/Chip Advance]	



Tag	Element name	Da	ta								Ca	rd v	/4.0
D1	Accumulator 1 Currency Conversion			00	00	00	08	40	00	00			
	Table [Mastercard]	00 00	00	00	80	40	00	00	00	08	40	00	00
D3	Additional Check Table [Mastercard]					FF FF		FF	FF	FF	FF	FF	FF
D5	Application Control [M/Chip Advance]	84	00	80	00	C6	02						
D6	Default ARPC Response Code [M/Chip Advance]	00	10										
D7	Application Control [M/Chip Advance]	80	00	80	00	C6	02						
D9	Application File Locator (Contactless)	08	01	01	00	08	03	03	00				
DE	Log Data Table [M/Chip Advance]	00	00	00	00	00	00	00	00	00			
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00											
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1											
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	C1											
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00											
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00											
DF 16	Accumulator 2 Currency Code [Mastercard]	09	99										
DF 17	Accumulator 2 Currency Conversion	09	99	00	00	00	09	99	00	00	00	09	99
	Table [Mastercard]	00				99		00	00	09	99	00	00
DF 18	Accumulator 2 Lower Limit [Mastercard]					00							
DF 19	Accumulator 2 Upper Limit [Mastercard]		00	00	00	00	00						
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1											
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	C1											
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00											
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00											
DF 1F	Counter 2 Lower Limit [Mastercard]	00											
DF 21	Counter 2 Upper Limit [Mastercard]	00											
DF 22	MTA CVM (Contact) [M/Chip Advance]					00							
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00	00	00	00	00	00	_	_		_	_	
DF 24	MTA Currency Code [M/Chip Advance]			- U									
DF 25	MTA NoCVM (Contact) [M/Chip Advance]					00	00						
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00	00	00	00	00	00						
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00	00										
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00	00	00									
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00	00	00									
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00	00	00									
DF 2B	Accumulator 2 CVR Dependency Data	00	00	00									
	(Contactless) [M/Chip Advance]												



Tag	Element name	Data Card v4.0
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20

#### 4.9.5 Contact: CVM List - U.S. Maestro, AID A000000042203

Cardhol	Cardholder Verification Method List ('0205 4203 1F03')									
CVM	Verification Method	Conditions	If unsuccessful							
1	Online PIN	Purchase with Cashback	Fail							
2	Online PIN	Terminal supports CVM type	Next CVM							
3	No CVM required	Terminal supports CVM type	Fail							

# 4.9.6 Contact: Application Tag data, AID A000000042203

	* Tag value changes with card usage						
Tag	Element name	Data Card v4.0					
42	Issuer Identification Number (IIN)	67 99 99					
50	Application Label	55 53 20 4D 41 45 53 54 52 4F -'US					
		MAESTRO'					
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 00 05 1D 22 12					
		22 01 48 35 94 90 OF					
5A	Application Primary Account Number (PAN)	67 99 99 89 00 00 02 00 05 1F					
5F 20	Cardholder Name	55 41 54 20 44 65 62 69 74 2F 54 65					
		73 74 20 43 61 72 64 20 30 39 20 20					
		20 20 - 'USA DEBIT/Test Card 09'					
5F 24	Application Expiration Date	22 12 31					
5F 25	Application Effective Date	xx xx xx *					
5F 28	Issuer Country Code	08 40 - USA					
5F 2D	Language Preference	65 6E - 'en' (English)					
5F 30	Service Code	02 20					
5F 34	Application PAN Sequence Number	12					
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'					



Tag	Element name	Data Card v4.0
82	Application Interchange Profile	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported using
		External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 22 03
87	Application Priority Indicator	03
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 05 42 03
	List	1F 03 00 00 00 00
94	Application File Locator (AFL)	08 01 01 00 08 03 03 00
94	Application File Locator (AFL)	08 01 01 00 08 03 03 00
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number	00 02
	Issuer Action Code - Default	B0 50 9C 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
		B0 70 9C 98 00
9F 0F	Issuer Action Code - Online	
9F 10	Issuer Application Data [M/Chip	xx xx A0 xx
	Advance]	
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 4D 61 65 73 74 72 6F - US
	• • • • • • • • • • •	Maestro'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	03
	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
31 41		36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14
L	i	1



-													1.0
Tag	Element name	Da		0			0.4					rd v	
9F 7E	Application Life Cycle Data [Mastercard]						01						
							30 80						
							00						
C3	Card Issuer Action Code (Contact) -		00										
05	Decline [M/Chip Advance]		•••	•••									
C4	Card Issuer Action Code (Contact) -	06	50	00									
04	Default [M/Chip Advance]												
C5	Card Issuer Action Code (Contact) -	06	FB	0.0									
05	Online [M/Chip Advance]	00	10	00									
C6		03											
C6 C7	PIN Try Limit [M/Chip Advance] CDOL1 Related Data Length	42											
07	[Mastercard]	-12											
C8		00	40		<u>۹</u>								
	CRM Country Code [Mastercard]		40										
C9	Accumulator 1 Currency Code	08	40	- 0	5D								
<u> </u>	[Mastercard]	00	00	00	00	00	00						
CA	Accumulator 1 Lower Limit [Mastercard]					00							
CB	Accumulator 1 Upper Limit [Mastercard]				00	00	00						
CD	Card Issuer Action Code (Contactless) -	06	50	00									
0-	Default [M/Chip Advance]												
CE	Card Issuer Action Code (Contactless) -	06	FB	00									
	Online [M/Chip Advance]												
CF	Card Issuer Action Code (Contactless) -	00	00	00									
	Decline [M/Chip Advance]												
D1	Accumulator 1 Currency Conversion						08						
	Table [Mastercard]		00	00	08	40	00	00	00	08	40	00	00
Do	Additional Charle Table [Mastersard]	00	00	00	FF	FF	FF	FF	FF	FF	FF	<b>FF</b>	FF
D3	Additional Check Table [Mastercard]					FF		<u> </u>	<u> </u>	<u> </u>	<b>F F</b>	<u> </u>	<b>E E</b>
D5	Application Control [M/Chip Advance]					C6							
D6	Default ARPC Response Code [M/Chip	00	10										
00	Advance]												
D7	Application Control [M/Chip Advance]	80	00	80	00	C6	02						
D9	Application File Locator (Contactless)						03	03	00				
DB	Log Data Table [M/Chip Advance]						00			00			
DF 02	Security Limits Status (Contact) [M/Chip	00											
	Advance]	00											
DE 11		C1											
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	01											
DE 10		C1											
DF 12	Accumulator 1 Control (Contactless)												
	[M/Chip Advance]	00											
DF 14	Accumulator 2 Control (Contact)	00											
	[M/Chip Advance]	00											
DF 15	Accumulator 2 Control (Contactless)	00											
	[M/Chip Advance]	00	0.0										
DF 16	Accumulator 2 Currency Code	09	99										
<b>DF</b> (=	[Mastercard]		~~	~ ~	~ ~	~~			~~		~~		<u> </u>
DF 17	Accumulator 2 Currency Conversion						09						
	Table [Mastercard]	00	00	00	09	39	00	00	00	09	39	00	00
DF 18	Accumulator 2 Lower Limit [Mastercard]		00	00	00	00	00						
DF 18 DF 19	Accumulator 2 Upper Limit [Mastercard]					00							
DF 19 DF 1A	Counter 1 Control (Contact) [M/Chip	00 C1	50	50		50	50						
	· / · ·												
	Advance]	C1											
DF 1B	Counter 1 Control (Contactless) [M/Chip												
	Advance]	00											
DF 1D	Counter 2 Control (Contact) [M/Chip	00											
	Advance]												



TagElement nameDataCaDF 1ECounter 2 Control (Contactless) [M/Chip Advance]0000DF 1FCounter 2 Lower Limit [Mastercard]00DF 21Counter 2 Upper Limit [Mastercard]00DF 22MTA CVM (Contact) [M/Chip Advance]00 00 00 00 00 00DF 23MTA CVM (Contactless) [M/Chip Advance]00 00 00 00 00 00	rd v4.0
Advance]         00           DF 1F         Counter 2 Lower Limit [Mastercard]         00           DF 21         Counter 2 Upper Limit [Mastercard]         00           DF 22         MTA CVM (Contact) [M/Chip Advance]         00 00 00 00 00 00           DF 23         MTA CVM (Contactless) [M/Chip         00 00 00 00 00	
DF 21         Counter 2 Upper Limit [Mastercard]         00           DF 22         MTA CVM (Contact) [M/Chip Advance]         00 00 00 00 00 00           DF 23         MTA CVM (Contactless) [M/Chip         00 00 00 00 00 00	
DF 22         MTA CVM (Contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	
DF 22         MTA CVM (Contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	
DF 23 MTA CVM (Contactless) [M/Chip 00 00 00 00 00 00	
Advance	
DF 24 MTA Currency Code [M/Chip Advance] 08 40 - USD	
DF 25 MTA NoCVM (Contact) [M/Chip 00 00 00 00 00 00	
Advance]	
DF 26 MTA NoCVM (Contactless) [M/Chip 00 00 00 00 00 00	
Advance]	
DF 27 Number Of Days Offline Limit [M/Chip 00 00	
Advance]	
DF 28 Accumulator 1 CVR Dependency Data 00 00 00	
(Contact) [M/Chip Advance]	
DF 29 Accumulator 1 CVR Dependency Data 00 00 00	
(Contactless) [M/Chip Advance]	
DF 2A Accumulator 2 CVR Dependency Data 00 00 00	
(Contact) [M/Chip Advance]	
DF 2B Accumulator 2 CVR Dependency Data 00 00 00	
(Contactless) [M/Chip Advance]	
DF 2C Counter 1 CVR Dependency Data 00 00 00	
(Contact) [M/Chip Advance]	
DF 2D Counter 1 CVR Dependency Data 00 00 00	
(Contactless) [M/Chip Advance]	
DF 2E Counter 2 CVR Dependency Data 00 00 00	
(Contact) [M/Chip Advance]	
DF 2F Counter 2 CVR Dependency Data 00 00 00	
(Contactless) [M/Chip Advance]	
DF 30 Interface Enabling Switch [M/Chip 01	
Advance]	
DF 35 Security Limits Status (Contactless) 00	
[M/Chip Advance]	
DF 37 Security Limits Status Common [M/Chip 00	
Advance]	
DF 3C CVR Issuer Discretionary Data 00	
(Contact) [M/Chip Advance]	
DF 3D CVR Issuer Discretionary Data 00	
(Contactless) [M/Chip Advance]	
DF 3F Read Record Filter (Contact) [M/Chip 00	
Advance]	
DF 40 Read Record Filter (Contactless) 00	
[M/Chip Advance]	
DF 41 DS Management Control [M/Chip 20	
Advance]	



### 4.10 Test Card 10 - Mastercard CO, Contact, 1-AID(US Maestro), English, USA, USD

A contact-only, single-AID Mastercard U.S. Maestro debit card with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is \$20.00.

#### 4.10.1 Contact: CVM List - U.S. Maestro, AID A000000043060

Cardholder Verification Method List ('0205 4203 1F03')									
CVM	Verification Method	Conditions	If unsuccessful						
1	Online PIN	Purchase with Cashback	Fail						
2	Online PIN	Terminal supports CVM type	Next CVM						
3	No CVM required	Terminal supports CVM type	Fail						

### 4.10.2 Contact: Application Tag data, AID A000000043060

		* Tag value changes with card usage				
Tag	Element name	Data Card v4.0				
42	Issuer Identification Number (IIN)	54 13 33				
50	Application Label	55 53 20 4D 41 45 53 54 52 4F - US				
		MAESTRO'				
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 21 22 20 08 08 10 79 00 00 0F				
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 91 30				
5F 20	Cardholder Name	55         53         41         20         44         45         42         49         54         2F         54         65           73         74         20         43         61         72         64         20         31         30         20         20           20         20         - 'USA DEBIT/Test Card 10'				
5F 24	Application Expiration Date	22 12 31				
5F 25	Application Effective Date	xx xx xx *				
5F 28	Issuer Country Code	08 40 - USA				
5F 2D	Language Preference	65 6E - 'en' (English)				
5F 30	Service Code	02 20				
5F 34	Application PAN Sequence Number	13				
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'				
82	Application Interchange Profile [M/Chip, PayPass]	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone				
84	Dedicated File (DF) Name	A0 00 00 00 04 22 03				
87	Application Priority Indicator	01				
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03				
8D	Card Risk Management Data Object List 2 (CDOL2)	91 OA 8A 02 95 05 9F 37 04 9F 4C 08				
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 02 05 42 03 1F 03				
8F	Certification Authority Public Key Index	FA				



Tag	Element name	Data Card v4.0
90	Issuer Public Key Certificate	18 89 B9 97 E6 FC E8 4B 4A E7 AB 87
	, ,	43 1C BD B3 DF 8C 1D 5A 55 A7 F6 0D
		29 59 AF 3A 51 04 E7 58 83 17 ED 74
		08 66 68 CF 1A 05 47 84 F7 49 3C 6D
		74 7F A7 96 EC 14 D3 33 A6 8E C7 E0
		08 62 95 9A 0B D0 F0 48 20 80 B7 1A C1 B7 62 5B 1B 8B 1F 35 A6 69 19 99
		BA 78 F5 92 E2 3F 95 E9 96 09 D1 08
		CF 1C 0E 30 8A 8B F6 4F BD E8 37 D3
		CE 13 8A 50 DC 50 AF 4B 41 EE 53 D9
		8A 11 B6 A8 1D DD 44 CC 43 0C 1E F3
		BB 9D 1D 75 A0 2F AA 9C 81 4A FC 58
92	Issuer Public Key Remainder	D3 52 41 07
94	Application File Locator (AFL)	08 02 04 01 18 01 01 00 20 01 01 00
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid b5 - International goods valid
		b3 - International goods valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00
9F 10	Issuer Application Data [M/Chip 4]	xx xx A0 xx xx xx xx xx xx xx xx xx
		XX XX XX XX XX XX *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 4D 61 65 73 74 72 6F - US
	Lawar Canaga suting Offling Lingit	Maestro' 00
9F 14	Lower Consecutive Offline Limit	
9F 17	Personal Identification Number (PIN)	01
	Try Counter	
9F 1F	Track 1 Discretionary Data	30         36         32         39         33         30         34         32         33         30         30         30           30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30         30 </td
9F 23	Lippor Consecutive Offline Limit	00
	Upper Consecutive Offline Limit	xx xx xx xx xx xx xx *
9F 26	Application Cryptogram (AC)	80
9F 27	Cryptogram Information Data (CID)	03
9F 32	Issuer Public Key Exponent	
9F 36	Application Transaction Counter (ATC)	
9F 42	Application Currency Code	08 40 - USD
9F 44	Application Currency Exponent	02
9F 46	ICC Public Key Certificate	30 74 E6 E9 E9 3E DF BD CE 0D 80 6A
		6B B6 A2 82 0C 30 1B ED 84 E9 3D 58 E9 EB 72 4A 54 D8 52 B4 4B A3 DC 14
		1D 30 28 0B 77 D7 E6 11 F7 B2 1A C6
		62 FE CD FE F1 C3 BD EF 60 0F 1E DD
		68 8D 6A 83 A5 29 90 0D 51 94 3A 47
		EB EF DC 97 28 EB B1 D5 35 D0 2E 49
1		DO 07 70 70 30 50 45 50 67 65 45 50
		B2 07 FC E6 A3 B2 4B B6 67 CD 45 B9
		60 4E 99 9C 20 5F 3B 67 19 6B E1 48
9F 47	ICC Public Key Exponent	



Tag	Element name	Da	ta								Са	rd ۱	/4.0
9F 48	ICC Public Key Remainder									90			-
										D3			
								F6	C9	72	9A	0E	21
05 40	Descrip Deter A. (Les d'estine Dete		62 37		11	F.8	31						
9F 49	Dynamic Data Authentication Data	91	31	04									
0 = 11	Object List (DDOL)												
9F 4A	Static Data Authentication Tag List	82											
9F 4D	Transaction Log Entry		0A										
9F 4F	Transaction Log Format						06	5F	2A	02	9A	03	9F
					52			~~~	~~~				
9F 7E	Application Life Cycle Data [Mastercard]									FF			
										FF 02			
										30			
C3	Card Issuer Action Code - Decline		00								• ·		
00	[Mastercard]												
C4	Card Issuer Action Code - Default	06	50	00									
04	[Mastercard]												
C5	Card Issuer Action Code - Online	06	FB	00									
65		00	гD	00									
00	[Mastercard]	00	00	00	00	00		00	00		00		
C6	Counters [Mastercard]		02	00	00	00	00	00	00	00	00		
C7	CDOL1 Related Data Length	2B											
	[Mastercard]				<u>.</u> .								
C8	CRM Country Code [Mastercard]		40										
C9	CRM Currency Code [M/Chip4]		40										
CA	Lower Cumulative Offline Transaction	00	00	00	00	00	00						
	Amount [M/Chip]												
CB	Upper Cumulative Offline Transaction	00	00	00	00	00	00						
	Amount [M/Chip]												
CD	Card Issuer Action Code - Default	00	58	00									
	[PayPass M/Chip]												
CE	Card Issuer Action Code - Online	00	F8	00									
	[PayPass M/Chip]												
CF	Card Issuer Action Code - Denial	08	00	00									
-	[PayPass M/Chip]												
D1	Currency Conversion Table [M/Chip]	08	40	00	00	00	08	40	00	00	00	08	40
		00	00	00	08	40	00	00	00	08	40	00	00
		00											
D3	Additional Check Table [Mastercard]							FF	FF	FF	FF	FF	FF
				FF	FF	FF	FF						
D5	Application Control [M/Chip]		00										
D6	Default ARPC Response Code	00	10										
	[M/Chip4]												
D7	Application Control [PayPass M/Chip]	40	00	40									
DF 02	Security Limits Status [Mastercard]	00											



### 4.11 Test Card 11 - Mastercard, CO, 4-AID (MC+USM/Maestro+USM), English, USA, USD

A contact-only, 4-AID Mastercard debit card with a pair of multi-funding accounts (Mastercard-U.S. Maestro / Maestro-U.S. Maestro) with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is \$20.00.

#### 4.11.1 Contact: CVM List - Mastercard debit, AID A000000041010

Cardhol	Cardholder Verification Method List ('0205 4103 4203 5E03 1F00')								
CVM	Verification Method	Method Conditions							
1	Online PIN	Purchase with Cashback	Fail						
2	Offline Plaintext PIN	Terminal supports CVM type	Next CVM						
3	Online PIN	Terminal supports CVM type	Next CVM						
4	Signature (paper)	Terminal supports CVM type	Next CVM						
5	No CVM required	Always	Fail						

#### 4.11.2 Contact: Application Tag data, AID A000000041010

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	4D 41 53 54 45 52 43 41 52 44 20 44
		45 42 49 54 - 'MASTERCARD DEBIT'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 21 22 01
<b>E A</b>	Application Drimony Account Number	14 83 59 49 00 0F 54 13 33 00 89 02 00 60
5A	Application Primary Account Number (PAN)	
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 31 31 20 20
55.04	Analization Funination Data	20 20 - 'USA DEBIT/Test Card 11'
5F 24	Application Expiration Date	xx xx xx *
5F 25 5F 28	Application Effective Date	08 40 - USA
	Issuer Country Code	65 6E - 'en' (English)
5F 2D 5F 30	Language Preference Service Code	
5F 30	Application PAN Sequence Number	11
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	· · · · · · · · · · · · · · · · · · ·	18 00
02	Application Interchange Profile	BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported using External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14
	1	JE /C 14



Tag	Element name	Data Card v4.0
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 05 41 03
	List	42 03 5E 03 1F 00 00 00
94	Application File Locator (AFL)	08 01 02 00
94	Application File Locator (AFL)	08 01 02 00
9F 07	Application Usage Control	FF C0
51 07	Application Usage Control	BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 10	Issuer Application Data [M/Chip	xx xx A0 xx
	Advance]	xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 73 74 65 72 63 61 72 64 20 44
-		65 62 69 74 - 'Mastercard Debit'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN) Try Counter	09
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	OB OA
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
	Transastion Log Format	36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00
		A0 00 00 00 04 10 10 00 00 00 00 00 00
		00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) -	
03	Decline [M/Chip Advance]	
C4	Card Issuer Action Code (Contact) -	06 00 00
04	Default [M/Chip Advance]	
C5	Card Issuer Action Code (Contact) -	3F FB 00
00	Online [M/Chip Advance]	
C6	PIN Try Limit [M/Chip Advance]	09
C6 C7	CDOL1 Related Data Length	42
01		16
Co	[Mastercard]	08 40 - USA
C8	CRM Country Code [Mastercard]	08 40 - USA 08 40 - USD
C9	Accumulator 1 Currency Code	
<u> </u>	[Mastercard]	00 00 00 00 00 00
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	



Tee		De	1.0								0.0		4.0
Tag	Element name	Da	ta 50	0.0							Ca	rd v	4.0
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]												
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	06	FB	00									
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00	00	00									
D1	Accumulator 1 Currency Conversion Table [Mastercard]	00										08 00	
D3	Additional Check Table [Mastercard]					FF FF		FF	FF	FF	FF	FF	FF
D5	Application Control [M/Chip Advance]					C6							
D6	Default ARPC Response Code [M/Chip Advance]		10										
D7	Application Control [M/Chip Advance]	80	00	80	00	C6	02						
D9	Application File Locator (Contactless)					08		03	00				
DB	Log Data Table [M/Chip Advance]		-	-		00				00			
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00											
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1											
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	C1											
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00											
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00											
DF 16	Accumulator 2 Currency Code [Mastercard]	09	99										
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]											09 00	
DF 18	Accumulator 2 Lower Limit [Mastercard]	00	00	00	00	00	00						
DF 19	Accumulator 2 Upper Limit [Mastercard]	00	00	00	00	00	00						
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1											
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	C1											
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00											
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00											
DF 1F	Counter 2 Lower Limit [Mastercard]	00											
DF 21	Counter 2 Upper Limit [Mastercard]	00											
DF 22	MTA CVM (Contact) [M/Chip Advance]					00							
DF 23	MTA CVM (Contactless) [M/Chip Advance]					00	00						
DF 24	MTA Currency Code [M/Chip Advance]			- U		-							
DF 25	MTA NoCVM (Contact) [M/Chip Advance]					00							
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]			00	00	00	00						
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00	00										
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00	00	00									
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00	00	00									



Tas		Dete
Tag	Element name	Data Card v4.0
DF 2A	Accumulator 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2F	Counter 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 30	Interface Enabling Switch [M/Chip	01
	Advance]	
DF 35	Security Limits Status (Contactless)	00
	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
2. 0.	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
21 00	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	00
	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
01.51	Advance]	
DF 40	Read Record Filter (Contactless)	00
	[M/Chip Advance]	
	• • •	20
DF 41	DS Management Control [M/Chip	20
	Advance]	

## 4.11.3 Contact: CVM List - U.S. checking, AID A00000004220301

Cardholder Verification Method List ('0205 4203 1F03')						
CVM	Verification Method	If unsuccessful				
1	Online PIN	Purchase with Cashback	Fail			
2	Online PIN	Terminal supports CVM type	Next CVM			
3	No CVM required	Terminal supports CVM type	Fail			

# 4.11.4 Contact: Application Tag data, AID A00000004220301

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 43 48 45 43 4B 49 4E 47 - 'US CHECKING'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 21 22 01 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 02 00 60
5F 20	Cardholder Name	55       53       41       20       44       65       62       69       74       2F       54       65         73       74       20       43       61       72       64       20       31       31       20       20         20       20       - 'USA DEBIT/Test Card 11'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	XX XX XX *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	11



Tag		
51 55	Element name Issuer Country Code (alpha2 format)	Data Card v4.0 55 53 - 'US'
<u>5F 55</u> 82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2:
		b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 22 03 01
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 1 (CDOL1)	9F       02       06       9F       03       06       9F       1A       02       95       05       5F         2A       02       9A       03       9C       01       9F       37       04       9F       35       01         9F       45       02       9F       4C       08       9F       34       03       9F       21       03         9F       7C       14
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00
94	Application File Locator (AFL)	08 01 01 00 08 03 03 00
94 9F 07	Application File Locator (AFL) Application Usage Control	08 01 01 00 08 03 03 00
		BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00
9F 10	Issuer Application Data [M/Chip Advance]	xx xx A0 xx
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 43 68 65 63 6B 69 6E 67 20 20 20 20 20 - 'US Checking'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN) Try Counter	09
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4D 9F 4F	Transaction Log Entry Transaction Log Format	0B       0A         9F       27       01       9F       02       06       5F       2A       02       9A       03       9F         36       02       9F       52       06       DF       3E       01       9F       21       03       9F         7C       14



_													
Tag	Element name	Da		0								ird v	
9F 7E	Application Life Cycle Data [Mastercard]					00							
						04 00							
						00							
C3	Card Issuer Action Code (Contact) -		00										
05	Decline [M/Chip Advance]		•••	•••									
C4	Card Issuer Action Code (Contact) -	06	50	00									
04	Default [M/Chip Advance]		•••	•••									
C5	Card Issuer Action Code (Contact) -	06	FB	00									
05	Online [M/Chip Advance]			•••									
C6	PIN Try Limit [M/Chip Advance]	09											
C0 C7	CDOL1 Related Data Length	42											
07	[Mastercard]												
C8	CRM Country Code [Mastercard]	08	40	- 11	S۵								
C9	Accumulator 1 Currency Code		40										
09	[Mastercard]	08	40	- 0	00								
CA	Accumulator 1 Lower Limit [Mastercard]	00	00	00	00	00	00						
CB	Accumulator 1 Upper Limit [Mastercard]					00							
CD	Card Issuer Action Code (Contactless) -		50		00	00	00						
CD	· · · · · · · · · · · · · · · · · · ·	00	50	00									
CE	Default [M/Chip Advance] Card Issuer Action Code (Contactless) -	06	FB	00									
CE	Online [M/Chip Advance]	00	ЕD	00									
CF		00	00	00									
CF	Card Issuer Action Code (Contactless) -	00	00	00									
DI	Decline [M/Chip Advance]	00	40	00	00	00	00	40	00	00	00	00	40
D1	Accumulator 1 Currency Conversion					40							
	Table [Mastercard]	00	00	00	00	-10	00	00	00	00	-10	00	00
D3	Additional Check Table [Mastercard]	00	00	00	FF	FF	FF	FF	FF	FF	FF	FF	FF
		FF	FF	FF	FF	FF	FF						
D5	Application Control [M/Chip Advance]	80	00	80	00	C6	02						
D6	Default ARPC Response Code [M/Chip	00	10										
	Advance]												
D7	Application Control [M/Chip Advance]	80	00	80	00	C6	02						-
D9	Application File Locator (Contactless)	08	01	01	00	08	03	03	00				
DE	Log Data Table [M/Chip Advance]	00	00	00	00	00	00	00	00	00			
DF 02	Security Limits Status (Contact) M/Chip	00											
	Advance]												
DF 11	Accumulator 1 Control (Contact)	C1											
	[M/Chip Advance]												
DF 12	Accumulator 1 Control (Contactless)	C1											
	[M/Chip Advance]												
DF 14	Accumulator 2 Control (Contact)	00											
	[M/Chip Advance]												
DF 15	Accumulator 2 Control (Contactless)	00											
	[M/Chip Advance]												
DF 16	Accumulator 2 Currency Code	09	99										
	[Mastercard]												
DF 17	Accumulator 2 Currency Conversion	09	99	00	00	00	09	99	00	00	00	09	99
	Table [Mastercard]	00	00	00	09	99	00	00	00	09	99	00	00
		00											
DF 18	Accumulator 2 Lower Limit [Mastercard]					00							
DF 19	Accumulator 2 Upper Limit [Mastercard]		00	00	00	00	00						
DF 1A	Counter 1 Control (Contact) [M/Chip	C1											
	Advance]												
DF 1B	Counter 1 Control (Contactless) [M/Chip	C1											
	Advance]												
DF 1D	Counter 2 Control (Contact) [M/Chip	00											
	Advance]												



Tag	Element name	Data Card v4.0
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 24	MTA Currency Code [M/Chip Advance]	08 40 - USD
DF 25	MTA NoCVM (Contact) [M/Chip	00 00 00 00 00 00
_	Advance]	
DF 26	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 27	Number Of Days Offline Limit [M/Chip	00 00
	Advance]	
DF 28	Accumulator 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 29	Accumulator 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2A	Accumulator 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2F	Counter 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 30	Interface Enabling Switch [M/Chip	01
	Advance]	
DF 35	Security Limits Status (Contactless)	00
	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	00
	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
	Advance]	
DF 40	Read Record Filter (Contactless)	00
	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
	Advance]	



## 4.11.5 Contact: CVM List - Maestro debit, AID A000000043060

Cardhol	Cardholder Verification Method List ('0205 4103 0203 0000')						
CVM	Verification Method	Conditions	If unsuccessful				
1	Online PIN	Purchase with Cashback	Fail				
2	Offline Plaintext PIN	Terminal supports CVM type	Next CVM				
3	Online PIN	Terminal supports CVM type	Fail				
4	No CVM required	Always	Fail				

## 4.11.6 Contact: Application Tag data, AID A000000043060

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
42	Issuer Identification Number (IIN)	67 99 99
50	Application Label	4d 41 45 53 54 52 4f - 'MAESTRO'
57	Track 2 Equivalent Data	67 99 99 89 00 00 00 02 01 0D 22 12
<u>⊢_</u>		22 01 48 35 94 90 OF
5A	Application Primary Account Number (PAN)	67 99 99 89 00 00 02 00 05 1F
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 31 31 20 20
		20 20 - 'USA DEBIT/Test Card 11'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	12
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported using
		External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
84	Dedicated File (DE) Name	b8 - EMV mode NOT supported A0 00 00 00 04 30 60
87	Dedicated File (DF) Name	03
8C	Application Priority Indicator	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
00	Card Risk Management Data Object List	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
	1 (CDOL1)	9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
	2 (CDOL2)	
8E		
	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 05 41 03
	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 02 05 41 03 02 03 00 00 00 00
o⊏ 94	· · · · · · · · · · · · · · · · · · ·	



Tag	Element name	Data Card v4.0
9F 07	Application Usage Control	FF CO
0. 0.	Application Boage Control	BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
		00 00 00 00 00
9F 0E	Issuer Action Code - Denial	
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 10	Issuer Application Data [M/Chip	xx xx A0 xx xx xx xx xx xx xx xx xx
	Advance]	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 65 73 74 72 6F 20 20 20 20 20
02		20 20 20 - 'Maestro'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	09
96 17		
	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4D		0B 0A
	Transaction Log Entry	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
9F 4F	Transaction Log Format	36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00
9 7 1	Application Life Cycle Data [Mastercard]	A0 00 00 00 04 30 60 00 00 00 00 00
		00 00 00 00 00 80 00 88 01 06 A5 5A
		00 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) -	00 00 00
05	Decline [M/Chip Advance]	
0.1		06 00 00
C4	Card Issuer Action Code (Contact) -	
	Default [M/Chip Advance]	
C5	Card Issuer Action Code (Contact) -	3F FB 00
	Online [M/Chip Advance]	
C6	PIN Try Limit [M/Chip Advance]	09
C7	CDOL1 Related Data Length	42
	[Mastercard]	
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code	08 40 - USD
	[Mastercard]	
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
СВ	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) -	06 50 00
_	Default [M/Chip Advance]	
CE	Card Issuer Action Code (Contactless) -	06 FB 00
05	Online [M/Chip Advance]	00 00 00
	Card Issuer Action Code (Contactless) -	
CF	Decline [M/Chip Advance]	



Tag	Element name	Da	ta_								Ca	rd	/4.0
D1	Accumulator 1 Currency Conversion			00	00	00	08	40	00	00			
חס	Table [Mastercard]					40							
D3	Additional Check Table [Mastercard]					FF FF		FF	FF	FF	FF	FF	FF
D5	Application Control [M/Chip Advance]	84	00	80	00	C6	02						
D6	Default ARPC Response Code [M/Chip Advance]	00	10										
D7	Application Control [M/Chip Advance]	80	00	80	00	C6	02						
D9	Application File Locator (Contactless)	08	01	01	00	08	03	03	00				
DE	Log Data Table [M/Chip Advance]	00	00	00	00	00	00	00	00	00			
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00											
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1											
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	C1											
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00											
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00											
DF 16	Accumulator 2 Currency Code [Mastercard]	09	99										
DF 17	Accumulator 2 Currency Conversion	09	99	00	00	00	09	99	00	00	00	09	99
	Table [Mastercard]	00				99		00	00	09	99	00	00
DF 18	Accumulator 2 Lower Limit [Mastercard]					00							
DF 19	Accumulator 2 Upper Limit [Mastercard]		00	00	00	00	00						
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1											
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	C1											
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00											
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00											
DF 1F	Counter 2 Lower Limit [Mastercard]	00											
DF 21	Counter 2 Upper Limit [Mastercard]	00											
DF 22	MTA CVM (Contact) [M/Chip Advance]					00							
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00	00	00	00	00	00						
DF 24	MTA Currency Code [M/Chip Advance]			- U									
DF 25	MTA NoCVM (Contact) [M/Chip Advance]					00							
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00	00	00	00	00	00						
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00	00										
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00	00	00									
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00	00	00									
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00	00	00									
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00	00	00									
DF 2C	Contactiess) [M/Chip Advance]	00	00	00									



Tag	Element name	Data Card v4.0
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20

## 4.11.7 Contact: CVM List - U.S. Savings debit, AID A00000004220302

Cardhol	Cardholder Verification Method List ('0205 4203 1F03')					
CVM	Verification Method	Conditions	If unsuccessful			
1	Online PIN	Purchase with Cashback	Fail			
2	Online PIN	Terminal supports CVM type	Next CVM			
3	No CVM required	Terminal supports CVM type	Fail			

## 4.11.8 Contact: Application Tag data, AID A00000004220302

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
42	Issuer Identification Number (IIN)	67 99 99
50	Application Label	55 53 20 53 41 56 49 4E 47 53 -'US
		SAVINGS'
57	Track 2 Equivalent Data	67 99 99 89 00 00 00 02 01 0D 22 12
		22 01 48 35 94 90 OF
5A	Application Primary Account Number	67 99 99 89 00 00 02 00 05 1F
	(PÁN)	
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 31 31 20 20
		20 20 - 'USA DEBIT/Test Card 11'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	12
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'



Tag	Element name	Data Card v4.0
82	Application Interchange Profile	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported using
		External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
84	Dedicated File (DF) Name	b8 - EMV mode NOT supported A0 00 00 00 04 22 03 02
87		04
80 80	Application Priority Indicator	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
80	Card Risk Management Data Object List	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
	1 (CDOL1)	9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 05 42 03
	List	1F 03 00 00 00 00
94	Application File Locator (AFL)	08 01 01 00 08 03 03 00
94	Application File Locator (AFL)	08 01 01 00 08 03 03 00
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback allowed
	Application Varian Number	b7 - International cashback allowed
9F 08	Application Version Number	B0 50 9C 88 00
	Issuer Action Code - Default	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00 xx xx A0 xx xx xx xx xx xx xx xx xx
9F 10	Issuer Application Data [M/Chip	xx xx A0 xx
	Advance]	
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 53 61 76 69 6E 67 73 20 20
9F 14	Counter 1 Lower Limit [Mestereard]	20 20 20 - 'US Savings' 00
	Counter 1 Lower Limit [Mastercard]	09
9F 17	Personal Identification Number (PIN)	
05.00	Try Counter	00
9F 23	Counter 1 Upper Limit [Mastercard]	xx xx xx xx xx xx xx *
9F 26	Application Cryptogram (AC)	80
9F 27	Cryptogram Information Data (CID)	
9F 36	Application Transaction Counter (ATC)	
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14
L		/



Tag	Element name	Da	ta								Са	rd v	/4.0
9F 7E	Application Life Cycle Data [Mastercard]			0в	14	00	01	00	00	50			
							30						
							80						
C3	Card Issuer Action Code (Contact) -		00		00	00	00	00	00	00	00	00	00
03	Decline [M/Chip Advance]	00	00	00									
C4	Card Issuer Action Code (Contact) -	06	50	00									
04	Default [M/Chip Advance]												
C5	Card Issuer Action Code (Contact) -	06	FB	00									
	Online [M/Chip Advance]												
C6	PIN Try Limit [M/Chip Advance]	09											
C7	CDOL1 Related Data Length	42											
	[Mastercard]												
C8	CRM Country Code [Mastercard]		40										
C9	Accumulator 1 Currency Code	08	40	- U	SD								
	[Mastercard]												
CA	Accumulator 1 Lower Limit [Mastercard]					00							
CB	Accumulator 1 Upper Limit [Mastercard]				00	00	00						
CD	Card Issuer Action Code (Contactless) -	06	50	00									
05	Default [M/Chip Advance]	06	FB	0.0									
CE	Card Issuer Action Code (Contactless) -	06	F.B	00									
CF	Online [M/Chip Advance] Card Issuer Action Code (Contactless) -	00	00	00									
Сг	Decline [M/Chip Advance]	00	00	00									
D1	Accumulator 1 Currency Conversion	08	40	00	00	00	08	40	00	00	00	08	40
	Table [Mastercard]						00						
		00											
D3	Additional Check Table [Mastercard]	00					FF	FF	FF	FF	FF	FF	FF
DE	Application Control [M/Chip Advance]					FF C6							
D5 D6	Application Control [M/Chip Advance] Default ARPC Response Code [M/Chip		10	00	00	00	02						
DU	Advance]												
D7	Application Control [M/Chip Advance]	80	00	80	00	C6	02						
D9	Application File Locator (Contactless)	08	01	01	00	08	03	03	00				
DE	Log Data Table [M/Chip Advance]	00	00	00	00	00	00	00	00	00			
DF 02	Security Limits Status (Contact) [M/Chip	00											
	Advance]												
DF 11	Accumulator 1 Control (Contact)	C1											
	[M/Chip Advance]												
DF 12	Accumulator 1 Control (Contactless)	C1											
	[M/Chip Advance]												
DF 14	Accumulator 2 Control (Contact)	00											
<b>DF</b> / -	[M/Chip Advance]												
DF 15	Accumulator 2 Control (Contactless)	00											
	[M/Chip Advance]	00	99										
DF 16	Accumulator 2 Currency Code	09	39										
DF 17	[Mastercard]	00	90	00	00	00	09	90	00	00	00	00	90
ר יי	Accumulator 2 Currency Conversion Table [Mastercard]						00						
		00											
DF 18	Accumulator 2 Lower Limit [Mastercard]	00				00							
DF 19	Accumulator 2 Upper Limit [Mastercard]		00	00	00	00	00						
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1											
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	C1											
DF 1D	Counter 2 Control (Contact) [M/Chip	00											



DF 1E         Counter 2 Control (Contactless) [M/Chip Advance]         00           DF 1F         Counter 2 Upper Limit [Mastercard]         00           DF 21         Counter 2 Upper Limit [Mastercard]         00           DF 22         MTA CVM (Contactless) [M/Chip Advance]         00         00         00         00         00         00           DF 23         MTA CVM (Contactless) [M/Chip Advance]         08         40         -USD           DF 24         MTA CVM (Contact) [M/Chip Advance]         08         40         -USD           DF 25         MTA NoCVM (Contact) [M/Chip Advance]         00         00         00         00         00         00           DF 26         MTA NoCVM (Contactless) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00			
Advance]         No. 1           DF 1F         Counter 2 Lower Limit [Mastercard]         00           DF 21         Counter 2 Lower Limit [Mastercard]         00           DF 22         MTA CVM (Contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	Tag	Element name	Data Card v4.0
DF 21         Counter 2 Upper Limit [Mastercard]         00           DF 22         MTA CVM (Contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	DF 1E		00
DF 22         MTA CVM (Contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 22         MTA CVM (Contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 23         MTA CVM (Contactless) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00 </td <td>DF 22</td> <td></td> <td>00 00 00 00 00 00</td>	DF 22		00 00 00 00 00 00
Advance]         Advance]           DF 24         MTA Currency Code [M/Chip Advance]         08         40         - USD           DF 25         MTA NoCVM (Contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00 <t< td=""><td></td><td></td><td>00 00 00 00 00 00</td></t<>			00 00 00 00 00 00
DF 24         MTA Currency Code [M/Chip Advance]         08         40         - USD           DF 25         MTA NoCVM (Contact) [M/Chip Advance]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	_		
DF 25         MTA NoCVM (Contact) [M/Chip Advance]         00 00 00 00 00 00 00           DF 26         MTA NoCVM (Contactless) [M/Chip Advance]         00 00 00 00 00 00           DF 27         Number Of Days Offline Limit [M/Chip Advance]         00 00 00 00           DF 28         Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]         00 00 00           DF 29         Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]         00 00 00           DF 24         Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]         00 00 00           DF 28         Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]         00 00 00           DF 28         Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]         00 00 00           DF 20         Counter 1 CVR Dependency Data (Contactles) [M/Chip Advance]         00 00 00           DF 21         Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]         00 00 00           DF 22         Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]         00 00 00           DF 22         Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]         00 00 00           DF 25         Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]         00           DF 30         Interface Enabling Switch [M/Chip Advance]         01           DF 35         Security Limits Status	DF 24		08 40 - USD
Advance]DF 26MTA NoCVM (Contactiess) [M/Chip Advance]00 00 00 00 00 00 00DF 27Number Of Days Offline Limit [M/Chip Advance]00 00 00DF 28Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 29Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 24Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 28Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 28Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 20Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 20Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 21Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 22Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 25Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 36CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 38CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]01DF 36Read Record Filter (Contactless)00DF 40Read Record Filter	-		
DF 26       MTA NoCVM (Contactless) [M/Chip Advance]       00       00       00       00       00       00         DF 27       Number Of Days Offline Limit [M/Chip Advance]       00       00       00       00       00         DF 28       Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]       00       00       00       00       00         DF 29       Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]       00       00       00       00         DF 2A       Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]       00       00       00       00         DF 2B       Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]       00       00       00       00         DF 2C       Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]       00       00       00       00         DF 2E       Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]       00       00       00       00         DF 2E       Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]       00       00       00       00         DF 30       Interface Enabling Switch [M/Chip Advance]       01       01       01       01         DF 35       Security Limits Status Common [M/Chip Advance]       00       00       0			
Advance]DF 27Number Of Days Offline Limit [M/Chip Advance]00 00DF 28Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 29Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2AAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2BAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2BAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2CCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 33Security Limits Status (Contactless) [M/Chip Advance]00DF 34CVR Issuer Discretionary Data (Contact] [M/Chip Advance]00DF 35CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 35Read Record Filter (Contact] [M/Chip Advance]00DF 37Read Record Filter (Contactless)00DF 38Read Record Filter (Contactless)00DF 40Read Record Filter (Contactless)00	DF 26		00 00 00 00 00 00
DF 27       Number Of Days Offline Limit [M/Chip Advance]       00 00         DF 28       Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]       00 00 00         DF 29       Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 24       Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]       00 00 00         DF 2A       Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]       00 00 00         DF 2B       Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2C       Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2D       Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2E       Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2E       Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2F       Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 30       Interface Enabling Switch [M/Chip Advance]       01         DF 37       Security Limits Status (Contactless) [M/Chip Advance]       00         DF 33       CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]       00         DF 34       CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]       01	2. 20		
Advance]DF 28Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 29Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2AAccumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2BAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2CCounter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2CCounter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactess) [M/Chip Advance]00 00 00DF 2ECounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contactess) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 37Security Limits Status (Contactless) [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]01DF 37Security Limits Status Common [M/Chip Advance]01DF 37Security Limits Status Common [M/Chip Advance]01DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]01DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]01DF 37Read Record Filter (Contact) [M/Chip Advance]01DF 37Read Record Filter (Contactless)01DF	DF 27		00 00
DF 28       Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]       00 00 00         DF 29       Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2A       Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]       00 00 00         DF 2B       Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2C       Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2D       Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]       00 00 00         DF 2D       Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2E       Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2E       Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2F       Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 30       Interface Enabling Switch [M/Chip Advance]       01         DF 35       Security Limits Status (Contactless) [M/Chip Advance]       00         DF 36       CVR Issuer Discretionary Data (Contact) [M/Chip Advance]       00         DF 37       Security Limits Status Common [M/Chip Advance]       00         DF 30       CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]       00			
(Contact) [M/Chip Advance]DF 29Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2AAccumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2BAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2CCounter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 36CVR Issuer Discretionary Data (Contactles) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]01DF 31Read Record Filter (Contact) [M/Chip Advance]01DF 34Read Record Filter (Contactless)00DF 40Read Record Filter (Contactless)00	DF 28		00 00 00
DF 29       Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2A       Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]       00 00 00         DF 2B       Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2C       Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2D       Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2D       Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2E       Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00 00         DF 2F       Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00       00         DF 2F       Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]       00 00       00         DF 30       Interface Enabling Switch [M/Chip Advance]       01       01         DF 35       Security Limits Status (Contactless) [M/Chip Advance]       00       01         DF 36       CVR Issuer Discretionary Data (Contact) [M/Chip Advance]       00       01         DF 37       Security Limits Status Common [M/Chip Advance]       00       01         DF 30       CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]       00       01			
(Contactless) [M/Chip Advance]DF 2AAccumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2BAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2CCounter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 36CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 37CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]00DF 340Read Record Filter (Contact) [M/Chip Advance]01	DF 29		00 00 00
DF 2A (Contact) [M/Chip Advance]00 00 00DF 2B (Contactless) [M/Chip Advance]00 00 00DF 2C (Contact) [M/Chip Advance]00 00 00DF 2C (Contact) [M/Chip Advance]00 00 00DF 2D (Contact) [M/Chip Advance]00 00 00DF 2D (Contact) [M/Chip Advance]00 00 00DF 2E (Contact) [M/Chip Advance]00 00 00DF 2E (Contact) [M/Chip Advance]00 00 00DF 2E (Contact) [M/Chip Advance]00 00 00DF 2F (Contact) [M/Chip Advance]00 00 00DF 2F (Contact) [M/Chip Advance]00 00 00DF 30 (Contactless) [M/Chip Advance]01DF 30 (Contactless) [M/Chip Advance]01DF 35 (Contactlesc)01DF 36 (Contact) [M/Chip Advance]00DF 37 (Contactlesc)00DF 37 (Contact) [M/Chip Advance]00DF 36 (Contact) [M/Chip Advance]00DF 37 (Contact) [M/Chip Advance]00DF 38 (Contact) [M/Chip Advance]00DF 39 (Contact) [M/Chip Advance]00DF 30 (Contact) [M/Chip Advance]00DF 31 (Contact) [M/Chip Advance]00DF 33 (Contactless) [M/Chip Advance]00DF 34 (Contactless) [M/Chip Advance]00DF 35 (Contactless) [M/Chip Advance]00DF 36 (Contactless) [M/Chip Advance]00DF 37 (Contactless) [M/Chip Advance]00DF 36 (Contactless) [M/Chip Advance]00DF 37 (Contactless) [M/Chip Advance]00			
(Contact) [M/Chip Advance]DF 2BAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2CCounter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 36CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 37CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 38CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 39CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]00	DF 2A		00 00 00
DF 2BAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2CCounter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 37Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 38Read Record Filter (Contact) [M/Chip Advance]00			
(Contactless) [M/Chip Advance]DF 2CCounter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 35Read Record Filter (Contact) [M/Chip Advance]00	DF 2B		00 00 00
DF 2CCounter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 31CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 35Read Record Filter (Contact) [M/Chip Advance]00			
(Contact) [M/Chip Ádvance]DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 31CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 35Read Record Filter (Contact) [M/Chip Advance]00	DF 2C		00 00 00
DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 31CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 35Read Record Filter (Contact) [M/Chip Advance]00DF 340Read Record Filter (Contactless)00			
(Contactless) [M/Chip Advance]DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]00DF 340Read Record Filter (Contact) [M/Chip Advance]00	DF 2D	Counter 1 CVR Dependency Data	00 00 00
DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]01DF 37Read Record Filter (Contactless) (Contact]00			
(Contact) [M/Chip Ádvance]DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 35Read Record Filter (Contact) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless)00	DF 2E		00 00 00
DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 36CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]00DF 37Read Record Filter (Contactless)00DF 40Read Record Filter (Contactless)00			
DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 3DCVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 3FRead Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless)00	DF 2F		00 00 00
DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 3DCVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 3FRead Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless)00		(Contactless) [M/Chip Advance]	
DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 3CCVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 3DCVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 3FRead Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless)00	DF 30		01
DF 30       [M/Chip Advance]       00         DF 37       Security Limits Status Common [M/Chip Advance]       00         DF 3C       CVR Issuer Discretionary Data (Contact) [M/Chip Advance]       00         DF 3D       CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]       00         DF 3F       Read Record Filter (Contact) [M/Chip Advance]       00         DF 3F       Read Record Filter (Contactless)       00         DF 40       Read Record Filter (Contactless)       00		Advance]	
[M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 3CCVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 3DCVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 3FRead Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless)00	DF 35	Security Limits Status (Contactless)	00
DF 3C       CVR Issuer Discretionary Data (Contact) [M/Chip Advance]       00         DF 3D       CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]       00         DF 3F       Read Record Filter (Contact) [M/Chip Advance]       00         DF 40       Read Record Filter (Contactless)       00			
Advance]       00         DF 3C       CVR Issuer Discretionary Data (Contact) [M/Chip Advance]       00         DF 3D       CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]       00         DF 3F       Read Record Filter (Contact) [M/Chip Advance]       00         DF 40       Read Record Filter (Contactless)       00	DF 37	Security Limits Status Common [M/Chip	00
(Contact) [M/Chip Advance]       DF 3D     CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]       DF 3F     Read Record Filter (Contact) [M/Chip Advance]       DF 40     Read Record Filter (Contactless)			
(Contact) [M/Chip Advance]     00       DF 3D     CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]     00       DF 3F     Read Record Filter (Contact) [M/Chip Advance]     00       DF 40     Read Record Filter (Contactless)     00	DF 3C	CVR Issuer Discretionary Data	00
(Contactless) [M/Chip Advance]       DF 3F     Read Record Filter (Contact) [M/Chip Advance]       DF 40     Read Record Filter (Contactless)		(Contact) [M/Chip Advance]	
DF 3F     Read Record Filter (Contact) [M/Chip Advance]     00       DF 40     Read Record Filter (Contactless)     00	DF 3D		00
DF 3F     Read Record Filter (Contact) [M/Chip Advance]     00       DF 40     Read Record Filter (Contactless)     00		(Contactless) [M/Chip Advance]	
DF 40 Read Record Filter (Contactless) 00	DF 3F		00
DF 40 Read Record Filter (Contactless) 00			
	DF 40		00
[M/Chip Advance]			
DF 41 DS Management Control [M/Chip 20	DF 41		20
Advance			



### 4.12 Test Card 12 - Discover, DI, 2-AID (U.S. Debit, Discover), English/Spanish/French, USA, USD

A Dual Interface (Contact+Contactless), 2-AID Discover debit card with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is \$79.00.

### 4.12.1 Contact: CVM List - Discover U.S. Debit, AID A0000001524010

Cardho	Cardholder Verification Method List ('0203 1F03')				
CVM	VM         Verification Method         Conditions         If unsuccessful				
1	Online PIN	Terminal supports CVM Type	Fail		
2	No CVM required	Terminal supports CVM Type	Fail		

### 4.12.2 Contact: Application Tag data, AID A0000001524010

		* Tag value changes with card usage
Tag	Element name	Data Card v5.0
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	55 53 20 44 45 42 49 54 - 'US DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 00 05 D2 31 22 01 10 00 07 49 00 00 0F
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 00 05
5F 20	Cardholder Name	55         53         41         20         44         45         42         49         54         2F         54         65           73         74         20         43         61         72         64         20         31         32         20         20           20         20         - 'USA DEBIT/Test Card 12'
5F 24	Application Expiration Date	23 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E 65 73 66 72 - 'enesfr' (English, Spanish, French)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 01 52 40 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F         02         06         9F         03         06         9F         1A         02         95         05         5F           2A         02         9A         03         9C         01         9F         37         04         9F         35         01           9F         34         03
8D	Card Risk Management Data Object List 2 (CDOL2)	91 OA 8A 02 95 05 9F 37 04
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 03 1F 03
94	Application File Locator (AFL)	08 01 01 00 10 01 01 00 18 01 01 00



9F 07       Application Usage Control       FF 00         BYTE 1:       b8 - Domestic cash transactions valid       b7 - Int'l cash transactions valid         b6 - Domestic goods valid       b5 - International goods valid       b6 - Domestic goods valid         b7 - Int'l cash transactions valid       b6 - Domestic goods valid       b7 - International goods valid         b4 - Domestic services valid       b3 - International services valid       b2 - ATMs valid         b1 - Terminals other than ATMs valid       BYTE 2:       b8 - Domestic cashback NOT allowed         b7 - International cashback NOT allowed       b7 - International cashback NOT allowed         b7 - International cashback NOT allowed       b7 - International cashback NOT allowed         b7 - International cashback NOT allowed       b7 - International cashback NOT allowed         b7 - International cashback NOT allowed       b7 - International cashback NOT allowed         b7 - Internation Code - Default       B0 68 C4 E8 00         9F 01       Issuer Action Code - Denial       00 10 00 00 00         9F 05       Issuer Action Data [DPAS]       xx 06 xx xx xx xx xx x         9F 17       Personal Identification Number (PIN)       03         Try Counter       9F 20       06 9F 1A 02 5F 2A 02 9A 03 9F         9F 38       Processing Options Data Object List (PDOL)       9F 02 06 9F 1A 02 5F 2A 02 9A 03			
BYTE 1:         b8 - Domestic cash transactions valid b6 - Domestic cash transactions valid b5 - International goods valid b4 - Domestic cashback NOT allowed b7 - International services valid b2 - ATMs valid BYTE 2:           BF 08         Application Version Number         00         01         01         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	Tag	Element name	Data Card v5.0
b8 - Domestic cash transactions valid b7 - Intl cash transactions valid b4 - Domestic goods valid b4 - Domestic services valid b5 - International goods valid b4 - Domestic services valid b2 - ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - Internation Configuration Options b7 - Internation C	9F 07	Application Usage Control	
b7         Intl cash transactions valid b6           b7         International goods valid b3           b7         International goods valid b3           b7         International services valid b3           b7         International services valid b3           b7         International cashback NOT allowed b7           b7         Internatinal cashback NOT allowed b7			
b6         -Domestic goods valid b1           b6         -Domestic services valid b2           b7         -International goods valid b3           b7         -International services valid b3           b7         -International services valid b1           b7         -International services valid b1           b7         -International cashback NOT allowed b7           b7         -International cashback NOT allowed b7           b7         -Issuer Action Code - Denial           b7         -Issuer Action Code - Online           b7         -Or strast           b7         -Presonal Identification Number (PIN) Try Counter           b7			
b5         International georyces valid           b4         Domestic services valid           b2         ATMs valid           B7<08			
b4 - Domestic services valid           b2 - ATMS valid           b2 - ATMS valid           b1 - Terminals other than ATMs valid           b7 - Terminals other than ATMs valid           b7 - Terminals other than ATMs valid           b7 - DI Issuer Action Code - Denial           00 - 00 - 00           9F 0D Issuer Action Code - Denial           00 - 10           9F 0T Issuer Action Code - Online           9F 0T Issuer Action Code - Online           9F 10 Issuer Action Code - Online           9F 10 Issuer Application Number (PIN)           Try Counter           9F 26 Application Cryptogram (AC)           9F 27 Cryptogram Information Data (DPAS)           9F 38 Application Transaction Counter (ATC)           9F 38 Application Transaction Log Entry           9F 40 Transaction Log Format           9F 20 Application Configuration Options           10FAS           C1           C2           11           12           9F 78 Application Configuration Options           10PAS           C2           C3           C2           13           00 00 00 00 00 00 00 00 00 00 00 00 00			
b3 - International services valid b2 - ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 OF Issuer Action Code - Derial 9F 0F Issuer Action Code - Denial 9F 0F Issuer Action Code - Online 9F 10 Issuer Action Code - Online 9F 11 Issuer Application Data (DPAS] 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) 9F 40 Transaction Log Entry 9F 40 Transaction Log Entry 9F 47 Cryptogram Information Data (CID) 9F 40 Transaction Log Entry 9F 40 Transaction Log Format 9F 40 Transaction Log Format 9F 47 Cryptogram Information Data (CID) 9F 40 Transaction Log Format 9F 77 Cryptogram Information Data (CID) 9F 40 Transaction Log Format 9F 40 Transaction Log Format 9F 40 Transaction Log Format 9F 78 Application Configuration Options 15 48 10PAS] C2 Issuer Life Cycle Data (ILCD) [DPAS] 01 00 02 00 00 00 00 00 00 00 00 00 00 00 00 0			
b2 - ATMs valid         b2 - ATMs valid           b1 - Terminals other than ATMs valid           BYT B2 ::         b8 - Domestic cashback NOT allowed           b7 - International cashback NOT allowed           b7 D         Issuer Action Code - Denial           b7 F         Issuer Action Code - Online           b7 T         Personal Identification Number (PIN)           b7 T         Personal Identification Number (PIN)           b7 T         Personal Identification Data (DPAS)           xx xx xx xx xx xx xx xx **         *           b7 26         Application Transaction Counter (ATC)           b7 38         Processing Options Data Object List         processing Options Data Object List           p7 40         Transaction Log Entry         08 04           p7 41         Transaction Configuration Options         15 48           10PAS1         01         00 00 00 00 00 00 00 00 00 00 00 00 00			
BYTE 2:         DB - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 0D           9F 0D         Issuer Action Code - Denial         00 10 00 00 00           9F 0E         Issuer Action Data [DPAS]         xx 06 xx xx xx xx xx *           9F 10         Issuer Application Data [DPAS]         xx 06 xx xx xx xx xx xx *           9F 12         Issuer Application Data [DPAS]         xx xx *           9F 26         Application Cryptogram (AC)         xx xx xx *           9F 27         Cryptogram Information Data (CID)         80           9F 38         Processing Options Data Object List (POOL)         9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 32 06 9F 1A 02 5F 20 02 9F 53 08 9F 66 04 9F 71 02 9F 6C 02           9F 4F         Transaction Log Format         9F 02 06 5F 2A 02 9A 03 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02           12         Application State [D-PAS]         01           C1         Application Configuration Options [DPAS]         15 48           C2         Issuer Life Cycle Data (ILCD) [DPAS]         00 00 00 00 00 00 00 00 00 00 00 00 00			
B8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7           9F 00         Issuer Action Code - Default         80 68 C4 E8 00           9F 00         Issuer Action Code - Denial         00 10 00 00         00 00           9F 01         Issuer Action Code - Online         80 68 C4 F8 00         00 00           9F 01         Issuer Action Code - Online         80 68 C4 F8 00         00 00           9F 17         Personal Identification Number (PIN) Try Counter         03           9F 22         Cryptogram Information Data (CID) F3 6 Application Transaction Counter (ATC)         xx xx xx xx xx xx xx xx xx *         9F 30           9F 36         Application Log Entry         08 0A         9F 10 02 05 F 2A 02 9A 03 9F 36 02 9F (POOL)         35 01           9F 4D         Transaction Log Entry         08 0A         9F 30 00 00 00 00 00 00 00 00 00 00 00 00			b1- Terminals other than ATMs valid
b7 - International cashback NOT allowed           9F 08         Application Version Number         00         01           9F 0D         Issuer Action Code - Default         B0         68         C4         E8         00           9F 0F         Issuer Action Code - Denial         00         10         00         00         00         00           9F 0F         Issuer Action Code - Online         B0         68         C4         F8         00           9F 10         Issuer Application Data [DPAS]         xx         06         xx			BYTE 2:
9F 08         Application Version Number         00         01           9F 0D         Issuer Action Code - Default         B0         68         C4         E8         00           9F 0E         Issuer Action Code - Denial         D0         10         00         00         00           9F 0F         Issuer Action Code - Online         B0         68         C4         E8         00           9F 10         Issuer Action Code - Online         B0         68         C4         F8         00           9F 17         Personal Identification Number (PIN)         03         Try Counter         97         68         Application Transaction Counter (ATC)         xx         xx x x x         xx         x			
GF DD         Issuer Action Code - Default         B0         68         C4         E8         00           9F 0D         Issuer Action Code - Denial         00         10         00         00         00           9F 0F         Issuer Action Code - Online         B0         68         C4         PF         00           9F 10         Issuer Action Code - Online         B0         68         C4         PF         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00			
G F OE         Issuer Action Code - Denial         00         10         00         00         00           9F OE         Issuer Action Code - Online         B0         68         C4         F8         00           9F 0F         Issuer Action Code - Online         B0         68         C4         F8         00           9F 10         Issuer Action Code - Online         B0         68         C4         F8         00           9F 10         Issuer Action Code - Online         B0         68         C4         F8         00           9F 36         Application Cryptogram Information Data (CID)         80         xx         x			
General Sector Code - Online         B0         68         C4         F8         00           9F 0F         Issuer Action Code - Online         B0         68         C4         F8         00           9F 10         Issuer Action Code - Online         XX         06         XX         XX<	9F 0D		
String         Distort Application Data [DPAS]         xx         06         xx	9F 0E	Issuer Action Code - Denial	00 10 00 00 00
03         03         03           9F 17         Personal Identification Number (PIN) Try Counter         03           9F 26         Application Cryptogram (AC)         xx           9F 36         Application Transaction Data (CID)         80           9F 36         Application Transaction Counter (ATC)         xx xx x           9F 36         Application Transaction Data Object List (PDOL)         9F 02         06 9F 1A 02 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 1A 02 95 05 9C 01           9F 4D         Transaction Log Entry         08         0A         9F 73 04 9F 03 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02           9F 78         Application State [D-PAS]         01         1         1           C2         Issuer Life Cycle Data (ILCD) [DPAS]         01         00 00 00 00 00 00 00 00 00 00 00 00 00	9F 0F	Issuer Action Code - Online	B0 68 C4 F8 00
9F 17         Personal Identification Number (PIN) Try Counter         03           9F 26         Application Cryptogram (AC)         xx           9F 37         Cryptogram Information Data (CID)         80           9F 36         Application Transaction Counter (ATC)         xx xx *           9F 37         Cryptogram Information Data Object List (PDOL)         9F 02 06 9F 1A 02 5F 2A 02 9A 03 9F 36 02 9F 35 01           9F 4D         Transaction Log Entry         0B 0A           9F 4F         Transaction Configuration Options         9F 20 06 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 1A 02 9F 30 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02           9F 78         Application State [D-PAS]         01           C1         Application Configuration Options [DPAS]         01           C2         Issuer Life Cycle Data (ILCD) [DPAS]         00 00 00 00 00 00 00 00 00 00 00 00 00 00	9F 10	Issuer Application Data [DPAS]	xx 06 xx xx xx xx xx *
Try Counter         Image: constraint of the second of	9F 17		03
9F 26       Application Cryptogram (AC)       xx			
9F 27         Cryptogram Information Data (CID)         80           9F 36         Application Transaction Counter (ATC)         ×x **         *           9F 38         Processing Options Data Object List         9F 02         06 9F 1A         02 5F 2A         02 9A         03 9F           9F 4D         Transaction Log Entry         0B         0A         -         -         -         -         -         03 9F 36         02 9F 37         04 9F 03 06 9F 1A 02 95 05         9C 01         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - <td>9F 26</td> <td></td> <td>xx xx xx xx xx xx xx *</td>	9F 26		xx xx xx xx xx xx xx *
9F 36       Application Transaction Counter (ATC)       xx       xx       x       x         9F 38       Processing Options Data Object List (PDOL)       9F 02       06       9F 1A       02       5F 2A       02       9A       03       9F         9F 4D       Transaction Log Entry       0B       0A       9F 02       06       5F 2A       02       9A       03       9F       02       05       5F       2A       02       9A       03       9F       02       06       5F       2A       02       9A       03       9F       02       06       5F       2A       02       9A       03       9F       02       06       9F       7A       04       9F       02       06       9F       7A       02       9F       7A       04       9F       03       09F       7A       04       9F       7A       04       9F       03       05       7C       1B       4D       02       9F       7A       4A       9F       7A       04       9F       7A <td></td> <td></td> <td>80</td>			80
9F 38       Processing Options Data Object List (PDOL)       9F 02 06 9F 1A 02 5F 2A 02 9A 03 9F 36 02 9F 35 01         9F 4D       Transaction Log Entry       0B 0A         9F 4F       Transaction Log Format       9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 1A 02 95 05 9C 01 8A 02 9F 71 04 9F 03 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02         9F 78       Application State [D-PAS]       01         C1       Application Configuration Options [DPAS]       15         C2       Issuer Life Cycle Data (ILCD) [DPAS]       00       00 00 00 00 00 00 00 00 00 00 00 00 00			xx xx *
(PDOL)         35         01           9F 4D         Transaction Log Entry         0B         0A           9F 4F         Transaction Log Format         9F         02         06         5F         2A         02         9A         03         9F         36         02         9F           9F 4F         Transaction Log Format         34         03         9F         52         06         9F         1A         02         95         05         9C         01           C1         Application State [D-PAS]         01         1         1         5         48           C2         Issuer Life Cycle Data (ILCD) [DPAS]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00			9F 02 06 9F 1A 02 5F 2A 02 9A 03 9F
9F 4D         Transaction Log Entry         0B         0A           9F 4F         Transaction Log Format         9F 02         06         5F 2A         02         9A         03         9F 36         02         9F           34         03         9F 52         06         9F         1A         02         9F         03         06         9F         53         08         9F           66         04         9F         71         02         9F         66         04         9F         71         02         9F         60         04         9F         01         01         01         01         01         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	51 00		35 01
31 40         Transaction Log Entry         9F         02 06 5F         2A 02 9A 03 9F         36 02 9F         34 03 9F         36 02 9F         34 03 9F         36 02 9F         37 04			0B 0A
34       03       9F       52       06       9F       1A       02       95       05       9C       01         86       02       9F       37       04       9F       03       06       9F       53       08       9F         9F       78       Application State [D-PAS]       01       01       01       01       01       01       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00			
BA         02         9F         37         04         9F         03         06         9F         53         08         9F           9F 78         Application State [D-PAS]         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01 <t< td=""><td>96 46</td><td>Transaction Log Format</td><td></td></t<>	96 46	Transaction Log Format	
9F 78         Application State [D-PAS]         01           C1         Application Configuration Options [DPAS]         15         48           C2         Issuer Life Cycle Data (ILCD) [DPAS]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00			
C1         Application Configuration Options [DPAS]         15         48           C2         Issuer Life Cycle Data (ILCD) [DPAS]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         01			66 04 9F 71 02 9F 6C 02
[DPAS]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00 <th< td=""><td>9F 78</td><td>Application State [D-PAS]</td><td>01</td></th<>	9F 78	Application State [D-PAS]	01
C2         Issuer Life Cycle Data (ILCD) [DPAS]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	C1		15 48
One of the second of			
00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00<	C2	Issuer Life Cycle Data (ILCD) [DPAS]	
00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00<			
C3         Currency Conversion Codes 1 [DPAS]         08         40         00         01         00           C4         Currency Conversion Codes 2 [DPAS]         08         40         00         01         00           C5         Card Action Code - Denial [DPAS]         01         00         00         00         00           C6         Card Action Code - Default [DPAS]         2E         1F			
C4         Currency Conversion Codes 2 [DPAS]         08         40         00         01         00           C5         Card Action Code - Denial [DPAS]         01         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	C3	Currency Conversion Codes 1 [DBAS]	
C5         Card Action Code - Denial [DPAS]         01         00           C6         Card Action Code - Default [DPAS]         2E         1F           C7         Card Action Code - Online [DPAS]         FE         1F           D0         Issuer Application Data ObjectList (IADOL) [DPAS]         08         40         - USA           D2         CRM Country Code [DPAS]         08         40         - USD           D3         CRM Currency Code [DPAS]         08         40         - USD           DF 11         PDOL Check Table - Profile (PDOLP) [DPAS]         01         09         41         00         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         <			
C6         Card Action Code - Default [DPAS]         2E         1F           C7         Card Action Code - Online [DPAS]         FE         1F           D0         Issuer Application Data ObjectList (IADOL) [DPAS]         08         40         - USA           D2         CRM Country Code [DPAS]         08         40         - USA           D3         CRM Currency Code [DPAS]         08         40         - USA           D4         PDOL Check Table - Profile (PDOLP) [DPAS]         01         09         41         00         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01			
C7         Card Action Code - Online [DPAS]         FE         IF           D0         Issuer Application Data ObjectList (IADOL) [DPAS]         08         40 - USA           D2         CRM Country Code [DPAS]         08         40 - USD           D3         CRM Currency Code [DPAS]         08         40 - USD           DF 11         PDOL Check Table - Profile (PDOLP) [DPAS]         01         09         41         00         04         1A         11         FF         01         01           DF 20         Transaction Profile Objects(TPO0) [DPAS]         00         18         00         08         01         01         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00			
D0         Issuer Application Data ObjectList (IADOL) [DPAS]         08         40         USA           D3         CRM Country Code [DPAS]         08         40         USA           D3         CRM Currency Code [DPAS]         08         40         USA           DF 11         PDOL Check Table - Profile (PDOLP) [DPAS]         01         09         41         00         04         40         11         FF         01         01           DF 20         Transaction Profile Objects(TPO0) [DPAS]         00         18         00         08         01         01         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00			
Image: constraint of the system of the sy			
D2         CRM Country Code [DPAS]         08         40         - USA           D3         CRM Currency Code [DPAS]         08         40         - USD           DF 11         PDOL Check Table - Profile (PDOLP) [DPAS]         01         09         41         00         00         41         A0         11         FF         01         01           DF 20         Transaction Profile Objects(TPO0) [DPAS]         00         18         00         08         01         01         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	00		
D3         CRM Currency Code [DPAS]         08         40         - USD           DF 11         PDOL Check Table - Profile (PDOLP) [DPAS]         01         09         41         00         00         41         A0         11         FF         01         01           DF 20         Transaction Profile Objects(TPO0) [DPAS]         00         18         00         08         01         01         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         <	D2		08 40 1150
DF 11         PDOL Check Table - Profile (PDOLP) [DPAS]         01         09         41         00         00         41         A0         11         FF         01         01           DF 20         Transaction Profile Objects(TPO0) [DPAS]         00         18         00         08         01         01         00         10         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         0			
DF 20       Transaction Profile Objects(TPO0)       00       18       00       08       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       0			
DF 20       Intersection Profile Objects(TPO1)       01       01       01       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00		[DPAS]	
DF 21         Transaction Profile Objects(TPO1)         E0         10         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	DF 20		
DF 21         Transaction Profile Objects(TPO1)         E0         10         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00		[DPAS]	
DF 21         Transaction Profile Objects(TPO1) [DPAS]         E0         10         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00			
DF 21         Transaction Profile Objects(TPO1) [DPAS]         E0         10         00         08         01         01         01         01         01         01         01         01         01         01         01         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00			
DF 21         Transaction Profile Objects(TPO1)         E0         10         00         08         01         01         00         10         01         01         01         01         01         00         18           [DPAS]         DF 21			
[DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [D	DF 21	Transaction Profile Objects(TPO1)	
00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00 <td< td=""><td></td><td></td><td></td></td<>			
00 FE 1F 2E 1F 00 00 00 00 00 00 00 00 00 00 00 00 00			
			00 FE 1F 2E 1F 00 00 00 00 00 00 00
00 00			
			00 00



## 4.12.3 Contact: CVM List - Discover Debit, AID A0000001523010

Cardho	Cardholder Verification Method List ('0201 0203 1E03 1F03')					
CVM	Verification Method	Conditions	If unsuccessful			
1	Online PIN	Unattended Cash	Next CVM			
2	Online PIN	Terminal supports CVM type	Fail			
3	Signature (paper)	Terminal supports CVM type	Fail			
4	No CVM required	Terminal supports CVM type	Fail			

### 4.12.4 Contact: Application Tag data, AID A0000001523010

Tag         Element name         Data         Card v5.0           42         Issuer Identification Number (IIN)         60         11         97           50         Application Label         44         49         53         34         45         64         52         20         44         45         42         49         54         -'DISCOVER DEBIT'           57         Track 2 Data [Discover]         60         11         97         37         00         00         05         D2         31         22         01           57         Track 2 Data [Discover]         60         11         97         37         00         00         00         05         D2         31         22         02         01         00         04         45         42         49         54         24         54         25         23         12         12         02         02         02         02         02         02         02         02         02         02         02         02         02         02         02         01         5         53         13         22         02         02         01         5         53         -'USA         DE			* Tag value changes with card usage
Application Hobit Model (Mf)       44       49       53       43       4F       56       45       52       20       44       45       42         50       Application Label       44       49       53       43       4F       56       45       52       20       44       45       42         57       Track 2 Data [Discover]       60       11       97       37       00       00       05       D2       31       22       01         5A       Application Primary Account Number (PAN)       60       11       97       37       00       00       00       05       D2       31       22       02       02       02       02       02       02       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       01       00       00       00       00       00       00       01       00       01       00 </th <th>Tag</th> <th>Element name</th> <th>Data Card v5.0</th>	Tag	Element name	Data Card v5.0
49         54         - 'DISCOVER DEBIT'           57         Track 2 Data [Discover]         60         11         97         37         00         00         05         D2         31         22         01           5A         Application Primary Account Number (PAN)         60         11         97         37         00         00         05         D2         31         22         01           5F 20         Cardholder Name         55         53         41         20         44         45         42         49         54         2F         54         65           5F 20         Cardholder Name         55         53         41         20         44         45         42         49         54         2F         54         65           5F 20         Cardholder Name         23         12         31         31         31         31         31         31         32         20         20         20         20         20         20         20         20         20         20         20         20         21         31         31         31         31         31         31         31         31         31         31 <td>42</td> <td>Issuer Identification Number (IIN)</td> <td>60 11 97</td>	42	Issuer Identification Number (IIN)	60 11 97
10       00       07       49       00       00       0F         5A       Application Primary Account Number (PAN)       60       11       97       37       00       00       05         5F 20       Cardholder Name       55       53       41       20       44       45       42       95       54       22       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       <	50	Application Label	
Application Finnely Account Number         Solar and s	57	Track 2 Data [Discover]	10 00 07 49 00 00 OF
73         74         20         43         61         72         64         20         31         32         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20<	5A		60 11 97 37 00 00 00 05
ST 24       Application Eduction Eductine Eduction Eductines E	5F 20	Cardholder Name	73 74 20 43 61 72 64 20 31 32 20 20
5F 28         Issuer Country Code         08         40 - USA           5F 2D         Language Preference         65         6E         65         73         66         72         - 'enesfr' (English, Spanish, French)           5F 30         Service Code         02         01           5F 34         Application PAN Sequence Number         01           5F 55         Issuer Country Code (alpha2 format)         55         53         - 'US'           82         Application Interchange Profile         10         00           BYTE 1:         b7         Offline DDA NOT supported         b6           b6         Offline DDA NOT supported         b4         Terminal risk mgmt to be performed           b3<	5F 24	Application Expiration Date	23 12 31
5F 28         Issuer Country Code         08         40 - USA           5F 2D         Language Preference         65         6E         65         73         66         72         - 'enesfr' (English, Spanish, French)           5F 30         Service Code         02         01           5F 34         Application PAN Sequence Number         01           5F 55         Issuer Country Code (alpha2 format)         55         53         - 'US'           82         Application Interchange Profile         10         00           BYTE 1:         b7         Offline DDA NOT supported         b6           b6         Offline DDA NOT supported         b4         Terminal risk mgmt to be performed           b3<	5F 25	Application Effective Date	xx xx xx *
5F 2DLanguage Preference65 6E 65 73 66 72 - 'enesfr' (English, Spanish, French)5F 30Service Code02 015F 34Application PAN Sequence Number015F 55Issuer Country Code (alpha2 format)55 53 - 'US'82Application Interchange Profile10 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b3 - Issuer authentication NOT supported b3 - Suer authentication NOT supported b3 - Suer authentication NOT supported b3 - Issuer authentication NOT supported 	5F 28		08 40 - USA
StringDedicatedPAN Sequence Number015F 34Application PAN Sequence Number015F 55Issuer Country Code (alpha2 format)55 53 - 'US'82Application Interchange Profile10 00BYTE 1: b7 - Offline DDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported84Dedicated File (DF) NameA0 00 00 01 52 30 1087Application Priority Indicator0280Card Risk Management Data Object List 2 (CDOL2)9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 03 9C 01 9F 37 04 9F 35 01 9F 34 0381Card Risk Management Data Object List 2 (CDOL2)91 0A 8A 02 95 05 9F 37 0482Cardholder Verification Method (CVM) List00 00 00 00 00 00 00 00 00 00 02 01 02 03 42 03 1F 03	5F 2D		Spanish, French)
Sin SiteApplication FAR Sequence Number515F 55Issuer Country Code (alpha2 format)5553-'US'82Application Interchange Profile1000BYTE 1: b7 - Offline DDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported84Dedicated File (DF) Name A polication Priority IndicatorA00000152301087Application Priority Indicator 1 (CDOL1)0202049F37049F350180Card Risk Management Data Object List 2 (CDOL2)910A8A0295059F370481Cardholder Verification Method (CVM) List00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000 <td>5F 30</td> <td>Service Code</td> <td>02 01</td>	5F 30	Service Code	02 01
82Application Interchange Profile10 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported BYTE 2: b8 - EMV Contactless NOT supported84Dedicated File (DF) NameA0 00 00 01 52 30 1087Application Priority Indicator028CCard Risk Management Data Object List 2 (CDOL2)9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 34 038DCard Risk Management Data Object List 2 (CDOL2)91 0A 8A 02 95 05 9F 37 048ECardholder Verification Method (CVM) List00 00 00 00 00 00 00 00 00 00 00 02 01 02 03 42 03 1E 03 1F 03	5F 34	Application PAN Sequence Number	01
82Application Interchange Profile10 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported BYTE 2: b8 - EMV Contactless NOT supported84Dedicated File (DF) NameA0 00 00 01 52 30 1087Application Priority Indicator028CCard Risk Management Data Object List 1 (CDOL1)9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 34 038DCard Risk Management Data Object List 2 (CDOL2)91 0A 8A 02 95 05 9F 37 048ECardholder Verification Method (CVM) List00 00 00 00 00 00 00 00 00 00 00 02 01 02 03 42 03 1E 03 1F 03	5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
87       Application Priority Indicator       02         8C       Card Risk Management Data Object List 1 (CDOL1)       9F       02       06       9F       03       06       9F       1A       02       95       05       5F         2A       02       9A       03       9C       01       9F       37       04       9F       35       01         9F       34       03       9F       34       03       9F       37       04       9F       35       01         8D       Card Risk Management Data Object List 2 (CDOL2)       91       0A       8A       02       95       05       9F       37       04         8E       Cardholder Verification Method (CVM) List       00       00       00       00       00       00       00       00       00       02       01       02       03			BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported
8C       Card Risk Management Data Object List 1 (CDOL1)       9F       02       06       9F       03       06       9F       1A       02       95       05       5F         8D       Card Risk Management Data Object List 2 (CDOL2)       9F       03       06       9F       1A       02       95       05       5F         8E       Cardholder Verification Method (CVM) List       91       0A       8A       02       95       05       9F       37       04       9F       35       01		Dedicated File (DF) Name	
1 (CDOL1)       2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 34 03         8D       Card Risk Management Data Object List 2 (CDOL2)       91 0A 8A 02 95 05 9F 37 04         8E       Cardholder Verification Method (CVM) List       00 00 00 00 00 00 00 00 00 00 02 01 02 03 1F 03			
BE         Cardholder Verification Method (CVM)         00 00 00 00 00 00 00 00 00 00 00 00 00	8C		2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 34 03
List 42 03 1E 03 1F 03	8D	2 (CDOL2)	
94 Application File Locator (AFL) 08 01 01 00 10 01 01 00 18 02 02 00	8E		42 03 1E 03 1F 03
	94	Application File Locator (AFL)	08 01 01 00 10 01 01 00 18 02 02 00



Tag         Element name         Data         Card v5.0           9F 07         Application Usage Control         FF 00         BYTE 1: b8 - Domestic cash transactions valid b7 - Int't cash transactions valid b5 - International goods valid b4 - Domestic cash transactions valid b5 - International goods valid b1 - Domestic cash transactions valid b2 - ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International services valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - Internation Data (CID) b7 - Q - Cryptogram (AC)         90 01 0 00 00 00 00 cashback X xx xx x xx xx xx *								
BYTE 1:         b8< Domestic cash transactions valid b7           b8< Domestic cash transactions valid b5         b6           b7         Intranational goods valid b4         b6           b7         Intranational goods valid b4         b6           b7         Intranational services valid b2         b1           b7         Intranational services valid b2         b1           b7         Intranational services valid b2         b1           b7         International cashback NOT allowed b7         international cashback NOT allowed b7           b7         Issuer Action Code - Default b1         b0         68         c4         b1           b7         Issuer Action Code - Online b7         b1         b1         b1         b1           b7         Personal Identification Number (PDOL)         03         current xx xx *         xx           b7         Personal Identification Captogram (AC)         xx xx xx xx xx xx xx *         xx           b7         Personal Identification Captogram (AC)         xx xx *         xx xx *           b7         Personal Identification Captogram (AC)         xx xx *         xx xx *           b7         Personal Identification Captogram (AC)         xx xx xx xx xx xx *         corrent xx xx *           b7         B2	Tag	Element name	Data Card v5.0					
b8 - Domestic cash transactions valid b7 - Int' cash transactions valid b4 - Domestic goods valid b4 - Domestic services valid b5 - International goods valid b4 - Domestic services valid b5 - International services valid b2 - ATMs valid B7 - International cashback NOT allowed b7 - Internatin Profile Opiets (IDPAS] D7 - Internation Code - Def	9F 07	Application Usage Control						
b7         Intl cash transactions valid           b6         Domestic goods valid           b5         International goods valid           b6         Domestic services valid           b1         International services valid           b2         International services valid           b2         International services valid           b1         International services valid           b2         International cashback NOT allowed           b7         International cashback NOT allowed           b7         D1           B5         Issuer Action Code - Default           b6         C4           b7         Iternational cashback NOT allowed           b7         Personal Identification Number         00           b7         Personal Identification Number (PIN)         Try Counter           b7         Personal Identification Number (PIN)         38           b7         Personal Identification Number (PIN)         80           b7         Personal Identification Number         5								
b6         -Domestic goods valid b1           b6         -Domestic services valid b2           b7         -ATMs valid b2           b7         -ATMs valid b1           b7         -Issuer Action Code - Default b1         00 <b10< td="">           b7         Issuer Action Code - Online b1         20<b12< td="">           b7         Presonal Identification Number (PLO         10           b7         Presonal Identification Number (PIN) Ty Counter         3           b7         Processing Options Data Object List (PDOL)         57<b10< td="">           b7         Processing Options Data Object List (PDOL)         57<b10< td="">           b7         Processing Options Data Object List (DPAS)         57<b10< td="">           c1         Application State [D-PAS]         01           c2         p5         20         65 p5<b11< td="">         20           c2         Is         00         00         00</b11<></b10<></b10<></b10<></b12<></b10<>			b7 - Int'l cash transactions valid b6 - Domestic goods valid					
b5         International genvices valid           b2         - ATMs valid           b2         - ATMs valid           b2         - ATMs valid           b7         - Dimestic cashback NOT allowed           b7         - International cashback NOT allowed           b7         International cashback NOT allowed           b7         Issuer Action Code - Online         B0           b7         Personal Identification Number (PIN)								
b4 - Domestic services valid         b3 - International services valid           b2 - ATMS valid         b1 - Terminals other than ATMs valid           BYTE 2:         b8 - Domestic cashback NOT allowed           b7 OD         Issuer Action Code - Default         B0 68 c4 88 00           9F OE         Issuer Action Code - Denial         00 10 00 00 00           9F OF         Issuer Action Code - Online         B0 68 c4 88 00           9F 10         Issuer Action Code - Online         B0 68 c4 88 00           9F 10         Issuer Action Code - Online         B0 68 c4 78 00           9F 10         Issuer Action Code - Online         B0 68 c4 78 00           9F 10         Issuer Action Code - Online         B0 68 c4 78 00           9F 10         Issuer Action Code - Online         B0 70           9F 10         Issuer Action Code - Online         B0 70           9F 10         Issuer Action Code - Online         B0           9F 21         Cryptogram Information Data (CID)         80           9F 22         Cryptogram Information Data (CID)         80           9F 32         Opplication Transaction Log Format         9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 33 08 9F 66 04 9F 73 04 9F 73 04 9F 73 04 9F 73 04 9F 53 08 9F 66 04 9F 73 04 9F 53 08 9F 66 04 9F 73 04 9F 73 04 9F 73 04 9F 73 06 9F 53 08 9F 66 04 9F 77 04 9F 73 04 9F								
b3 - International services valid b2 - ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 OF Issuer Action Code - Default 9F 0F Issuer Action Code - Online 9F 0F Issuer Action Code - Online 9F 10 Issuer Action Code - Online 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) 9F 40 Transaction Log Entry 9F 45 Transaction Log Entry 9F 46 Transaction Log Entry 9F 47 Cryptogram Information Data (CID) 9F 40 Transaction Log Entry 9F 40 Transaction Log Format 9F 40 Transaction Log Format 9F 40 Transaction Log Format 9F 40 Application State [D-PAS] 41 03 9F 52 06 9F 1A 02 9F 03 08 9F 30 09 9F 34 03 9F 52 06 9F 1A 02 9F 03 08 9F 30 08 9F 54 03 9F 52 06 9F 1A 02 9F 03 08 9F 53 08 9F 56 04 9F 71 02 9F 02 06 00 00 00 00 00 00 00 00 00 00 00 00 00								
b2 - ATMs valid         b2 - ATMs valid           BY - Terminalis other than ATMs valid         BYT - E2::           B8 - Domestic cashback NOT allowed         D7 - International cashback NOT allowed           B7 0D         Issuer Action Code - Default         B0 68 c4 £8 00           B7 0F         Issuer Action Code - Denial         00 10 00 00 00           B7 0F         Issuer Action Code - Online         B0 68 c4 £8 00           B7 0F         Issuer Action Code - Online         B0 68 c4 £8 00           B7 0F         Issuer Action Code - Online         B0 68 c4 £8 00           B7 0F         Issuer Action Code - Online         B0 68 c4 £8 00           B7 0F         Issuer Action Code - Online         B0 68 c4 £8 00           B7 0F         Issuer Action Code - Online         B0 68 c4 £8 00           B7 27         Cryptogram Information Data (CID)         XX           B7 36         Application Transaction Counter (ATC)         XX XX X XX X								
BYTE 2:         B8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 0D           9F 0D         Issuer Action Code - Denial         00 68 C4 E8 00           9F 0E         Issuer Action Data [DPAS]         xx 06 xx xx xx xx *           9F 10         Issuer Application Data [DPAS]         xx 06 xx xx xx xx xx *           9F 11         Personal Identification Number (PIN) Try Counter         03           9F 26         Application Cryptogram (AC)         xx xx xx xx *         *           9F 37         Personal Identification Counter (ATC)         xx xx *         *           9F 38         Processing Options Data Object List (POOL)         9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 1A 02 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 13 06 9F 53 08 9F 56 04 9F 71 02 9F 6C 02           9F 78         Application Configuration Options [DPAS]         15 48           C2         Issuer Life Cycle Data (ILCD) [DPAS]         00 00 00 00 00 00 00 00 00 00 00 00 00								
B8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed 9F 0E           9F 0E         Issuer Action Code - Default         80 68 C4 E8 00           9F 0F         Issuer Action Code - Online         80 68 C4 F8 00           9F 0F         Issuer Action Code - Online         80 68 C4 F8 00           9F 17         Personal Identification Number (PIN) Ty Counter         03           9F 27         Cryptogram (AC)         xx xx xx xx xx xx xx xx xx *           9F 36         Application Transaction Counter (ATC)         xx xx x x xx *           9F 37         Processing Options Data Object List (POOL)         9F 00 05 9F 1A 02 5F 2A 02 9A 03 9F 36 02 9F (POOL)           9F 4F         Transaction Log Entry         08 0A           9F 4F         Transaction Configuration Options         15           11         Application State [D-PAS]         01           C2         Issuer Life Cycle Data (ILCD) [DPAS]         00         00         00         00         00           12         Application Configuration Options         15         48         10         10           C2         Issuer Life Cycle Data (ILCD) [DPAS]         01         00         00 00 00 00 00 00 00 00 00 00         00 00 00 00 00 00 00 00 00 00 00 00 0			b1- Terminals other than ATMs valid					
b7 - International cashback NOT allowed           9F 08         Application Version Number         00         01           9F 00         Issuer Action Code - Default         80         68         C4         E8         00           9F 01         Issuer Action Code - Denial         00         10         00         00         00         00           9F 01         Issuer Action Code - Online         B0         68         C4         F8         00           9F 10         Issuer Action Code - Online         D0         68         c4         F8         00           9F 17         Personal Identification Number (PIN) Try Counter         X         X × x × x × x × x × x × x × x         X         X × x × x × x         X         X × x × x × x         X         X × x × x ×         Y           9F 26         Application Transaction Counter (ATC)         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×         X × x × x ×			BYTE 2:					
9F 08         Application Version Number         00         01           9F 00         Issuer Action Code - Default         B0         68         C4         E8         00           9F 0E         Issuer Action Code - Online         B0         68         C4         F8         00           9F 0F         Issuer Action Code - Online         B0         68         C4         F8         00           9F 10         Issuer Action Code - Online         B0         68         C4         F8         00           9F 17         Personal Identification Number (PIN)         03         Trapsconter         97         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70								
Signed Type         Type         Type         Type         Type           9F 0D         Issuer Action Code - Denial         00         10         00         00         00           9F 0F         Issuer Action Code - Online         B0         68         c4         F8         00           9F 10         Issuer Action Code - Online         B0         68         c4         F8         00           9F 11         Issuer Action Code - Online         B0         68         c4         F8         00           9F 12         Issuer Action Code - Online         B0         68         c4         F8         00           9F 17         Personal Identification Number (PIN)         03         Type         <								
OF DE         Issuer Action Code - Denial         00         10         00         00         00           9F 0E         Issuer Action Code - Online         B0         68         C4         F8         00           9F 0F         Issuer Action Code - Online         B0         68         C4         F8         00           9F 10         Issuer Action Code - Online         B0         68         C4         F8         00           9F 17         Personal Identification Number (PIN)         13         13         14         14           9F 26         Application Cryptogram Information Data (CID)         80         28         28         29         20         9         10         25         21         02         94         03         9F           9F 38         Processing Options Data Object List         9F 02         06         9F 1A         02         95         05         02         95         30         9F 36         02         95         03         9F 36         02         95         03         9F 36         02         95         05         02         9F 36         02         9F 37         04         9F 03         06         9F 37         04         9F 30         06								
Bit of the sum of the	9F 0D							
String         Distort Application Data [DPAS]         xx         06         xx	9F 0E	Issuer Action Code - Denial	00 10 00 00 00					
03         03           9F 17         Personal Identification Number (PIN) Try Counter         03           9F 26         Application Cryptogram (AC)         xx           9F 37         Cryptogram Information Data (CID)         80           9F 36         Application Transaction Counter (ATC)         xx xx xx         xx xx x           9F 36         Application Transaction Counter (ATC)         xx xx xx         xx           9F 36         Application Transaction Log Entry         08         0A           9F 4D         Transaction Log Entry         0B         0A           9F 72         Cold Sp transaction Log Format         9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 1A 02 95 05 9C 01           9F 4D         Transaction Log Format         9F 02 06 6F 2A 02 9F 03 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02           9F 78         Application State [D-PAS]         01           C2         Issuer Life Cycle Data (ILCD) [DPAS]         00         00 00 00 00 00 00 00 00 00 00 00 00 00	9F 0F	Issuer Action Code - Online	B0 68 C4 F8 00					
9F 17         Personal Identification Number (PIN) Try Counter         03           9F 26         Application Cryptogram (AC)         xx           9F 37         Cryptogram Information Data (CID)         80           9F 36         Application Transaction Counter (ATC)         xx xx x         *           9F 38         Processing Options Data Object List (PDOL)         9F 02 06 9F 1A 02 5F 2A 02 9A 03 9F 36 02 9F 35 01           9F 4D         Transaction Log Entry         0B 0A           9F 4F         Transaction Configuration Options [DPAS]         01           C1         Application State [D-PAS]         01           C2         Issuer Life Cycle Data (ILCD) [DPAS]         01           C2         Issuer Life Cycle Data (ILCD) [DPAS]         00 00 00 00 00 00 00 00 00 00 00 00 00	9F 10	Issuer Application Data [DPAS]	xx 06 xx xx xx xx xx *					
Try Counter	9F 17		03					
9F 26       Application Cryptogram (AC)       xx								
9F 26       Cryptogram Information Data (CID)       80         9F 36       Application Transaction Counter (ATC)       xx       xx       *         9F 38       Processing Options Data Object List (PDOL)       9F       02       06       9F       1A       02       5F       2A       02       9A       03       9F         9F 4D       Transaction Log Entry       0B       0A       9F       52       06       9F       1A       02       95       95       9C       01       05       9F       02       06       9F       1A       02       9F       36       02       9F         9F       40       03       9F       52       06       9F       1A       02       9F       53       08       9F         9F       7A       Application State [D-PAS]       01       01       01       01       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       <	9F 26		xx xx xx xx xx xx xx xx *					
9F 36       Application Transaction Counter (ATC)       xx       xx       *         9F 38       Processing Options Data Object List (PDOL)       9F 02       06       9F 1A       02       5F 2A       02       9A       03       9F         9F 4D       Transaction Log Entry       0B       0A       9F       02       06       5F 2A       02       9A       03       9F       02       06       9F 3A       03       9F 36       02       9F       04       03       9F       05       02       9F       04       03       9F 36       02       9F       03       03       9F       36       02       9F       04       9F       02       06       9F       7A       04       9F       03       09F       73       04       9F       03       09F       73       04       9F       03       05       9F       02       05       9F       04       03       9F       36       02       9F       73       04       9F       03       03       9F       36       02       9F <t< td=""><td></td><td></td><td>80</td></t<>			80					
Of Or Processing Options Data Object List (PDOL)         9F 02 06 9F 1A 02 5F 2A 02 9A 03 9F 35 01           9F 38         Processing Options Data Object List (PDOL)         9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 1A 02 95 05 9C 01 8A 02 9F 37 04 9F 03 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02           9F 78         Application State [D-PAS]         01           C1         Application Configuration Options [DPAS]         00         00 00 00 00 00 00 00 00 00 00 00 00 00			xx xx *					
(PDOL)         35         01           9F 4D         Transaction Log Entry         0B         0A           9F 4F         Transaction Log Format         9F         02         06         5F         2A         02         9A         03         9F         66         02         9F         02         06         9F         1A         02         95         05         9C         01           C1         Application State [D-PAS]         01         15         48         03         9F         72         04         9F         70         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00			9F 02 06 9F 1A 02 5F 2A 02 9A 03 9F					
9F 4D         Transaction Log Entry         0B         0A           9F 4F         Transaction Log Format         9F 02         06         5F 2A         02         9A         03         9F 36         02         9F           34         03         9F 52         06         9F 1A         02         9F 30         06         9F 53         08         9F           66         04         9F 71         02         9F 6C         02         9F         06         04         9F 71         02         9F 6C         02         9F         06         04         9F 71         02         9F 6C         02         9F         08         04         9F         01         0         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00<	51 00		35 01					
S1 4D       Transaction Log Format       9F 02 06 5F 2A 02 9A 03 9F 36 02 9F         34 03 9F 52 06 9F 1A 02 95 05 9C 01         8A 02 9F 37 04 9F 03 06 9F 52 06 0F         9F 78       Application State [D-PAS]         01       01         C1       Application Configuration Options [DPAS]         C2       Issuer Life Cycle Data (ILCD) [DPAS]         00 00 00 00 00 00 00 00 00 00 00 00 00			0B 0A					
31 41       11411304101 E0g 1 011141       34 03 9F 52 06 9F 1A 02 95 05 9C 01         84 02 9F 37 04 9F 03 06 9F 53 08 9F       66 04 9F 71 02 9F 6C 02         9F 78       Application State [D-PAS]       01         C1       Application Configuration Options [DPAS]       15 48         C2       Issuer Life Cycle Data (ILCD) [DPAS]       00 00 00 00 00 00 00 00 00 00 00 00 00								
BA         02         9F         37         04         9F         03         06         9F         53         08         9F           9F 78         Application State [D-PAS]         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00 <t< td=""><td>96 46</td><td>Transaction Log Format</td><td></td></t<>	96 46	Transaction Log Format						
9F 78         Application State [D-PAS]         01           C1         Application Configuration Options [DPAS]         15         48           C2         Issuer Life Cycle Data (ILCD) [DPAS]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00								
C1         Application Configuration Options [DPAS]         15         48           C2         Issuer Life Cycle Data (ILCD) [DPAS]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00			66 04 9F 71 02 9F 6C 02					
[DPAS]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00 <th< td=""><td>9F 78</td><td>Application State [D-PAS]</td><td>01</td></th<>	9F 78	Application State [D-PAS]	01					
C2         Issuer Life Cycle Data (ILCD) [DPAS]         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	C1		15 48					
One of the second of								
OR         OR<	C2	Issuer Life Cycle Data (ILCD) [DPAS]						
00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00<								
C3         Currency Conversion Codes 1 [DPAS]         08         40         00         01         00           C4         Currency Conversion Codes 2 [DPAS]         08         40         00         01         00           C5         Card Action Code - Denial [DPAS]         01         00         00         00         00           C6         Card Action Code - Default [DPAS]         2E         1F         00         100         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00								
C4         Currency Conversion Codes 2 [DPAS]         08         40         00         01         00           C5         Card Action Code - Denial [DPAS]         01         00         00         00         00           C6         Card Action Code - Default [DPAS]         2E         1F         00         Issuer Application Data ObjectList (IADOL) [DPAS]         FE         1F           D0         Issuer Application Data ObjectList (IADOL) [DPAS]         08         40         USA           D3         CRM Courtry Code [DPAS]         08         40         USA           D3         CRM Currency Code [DPAS]         08         40         USA           D4         PDOL Check Table - Profile (PDOLP)         01         09         41         00         00         41         A0         11         FF         01         01           DF 20         Transaction Profile Objects(TPO0)         00         18         00         08         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01	C3	Currency Conversion Codes 1 [DPAS]						
C5         Card Action Code - Denial [DPAS]         01         00           C6         Card Action Code - Default [DPAS]         2E         1F           C7         Card Action Code - Online [DPAS]         FE         1F           D0         Issuer Application Data ObjectList (IADOL) [DPAS]         08         40         - USA           D2         CRM Country Code [DPAS]         08         40         - USD           D3         CRM Currency Code [DPAS]         08         40         - USD           DF 11         PDOL Check Table - Profile (PDOLP)         01         09         41         00         00         1         A0         11         FF         01         01           DF 20         Transaction Profile Objects(TPO0) [DPAS]         00         18         00         08         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01 <td></td> <td></td> <td>08 40 00 01 00</td>			08 40 00 01 00					
C6         Card Action Code - Default [DPAS]         2E         1F           C7         Card Action Code - Online [DPAS]         FE         1F           D0         Issuer Application Data ObjectList (IADOL) [DPAS]         08         40         - USA           D2         CRM Country Code [DPAS]         08         40         - USA           D3         CRM Currency Code [DPAS]         08         40         - USA           D4         PDOL Check Table - Profile (PDOLP) [DPAS]         01         09         41         00         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01								
C7         Card Action Code - Online [DPAS]         FE         1F           D0         Issuer Application Data ObjectList (IADOL) [DPAS]         08         40         - USA           D2         CRM Country Code [DPAS]         08         40         - USD           D3         CRM Currency Code [DPAS]         08         40         - USD           DF 11         PDOL Check Table - Profile (PDOLP) [DPAS]         01         09         41         00         04         1A0         11         FF         01         01           DF 20         Transaction Profile Objects(TPO0) [DPAS]         00         18         00         08         01         01         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00								
D0         Issuer Application Data ObjectList (IADOL) [DPAS]         08         40         - USA           D2         CRM Country Code [DPAS]         08         40         - USA           D3         CRM Currency Code [DPAS]         08         40         - USD           DF 11         PDOL Check Table - Profile (PDOLP) [DPAS]         01         09         41         00         00         41         A0         11         FF         01         01           DF 20         Transaction Profile Objects(TPO0) [DPAS]         00         18         00         08         01         01         00         10         00         10         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00 <td></td> <td></td> <td></td>								
Image: display black bl								
D2         CRM Country Code [DPAS]         08         40         - USA           D3         CRM Currency Code [DPAS]         08         40         - USD           DF 11         PDOL Check Table - Profile (PDOLP) [DPAS]         01         09         41         00         00         41         A0         11         FF         01         01           DF 20         Transaction Profile Objects(TPO0) [DPAS]         00         18         00         08         01         01         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00	DU							
D3         CRM Currency Code [DPAS]         08         40         - USD           DF 11         PDOL Check Table - Profile (PDOLP) [DPAS]         01         09         41         00         00         41         A0         11         FF         01         01           DF 20         Transaction Profile Objects(TPO0) [DPAS]         00         18         00         08         01         01         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         <	D2		08 40 -1150					
DF 11         PDOL Check Table - Profile (PDOLP) [DPAS]         01         09         41         00         00         41         A0         11         FF         01         01           DF 20         Transaction Profile Objects(TPO0) [DPAS]         00         18         00         08         01         01         00         10         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         01         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         0								
DF 20       Transaction Profile Objects(TPO0) [DPAS]       00       18       00       08       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       00       18       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01       01								
DF 21       Transaction Profile Objects(TPO1)       01 01 00 00 00 00 00 00 00 00 00 00 00 0		[DPAS]						
DF 21       Transaction Profile Objects(TPO1)       E0       10       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       0	DF 20							
DF 21       Transaction Profile Objects(TPO1)       E0       10       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       0		[DPAS]						
DF 21       Transaction Profile Objects(TPO1)       E0       10       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       0								
DF 21         Transaction Profile Objects(TPO1) [DPAS]         E0         10         00         08         01         01         01         01         01         01         01         01         01         01         01         00         18           00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00<								
DF 21         Transaction Profile Objects(TPO1) [DPAS]         E0         10         00         08         01         01         01         01         01         01         01         01         01         01         01         00         18           02         02         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00<								
[DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [DPAS] [D	DF 21	Transaction Profile Objects(TPO1)						
00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00 <td< td=""><td></td><td></td><td></td></td<>								
00 FE 1F 2E 1F 00 00 00 00 00 00 00 00 00 00 00 00 00								
			00 FE 1F 2E 1F 00 00 00 00 00 00 00					
00 00								
			00 00					



# 4.12.5 Contactless: CVM List - Discover U.S. Debit, AID A0000001524010

Cardholder Verification Method List ('0203 1F03')							
CVM	Verification Method	Conditions	If unsuccessful				
1	Online PIN	Terminal supports CVM type	Fail				
2	No CVM required	Terminal supports CVM type	Fail				

# 4.12.6 Contactless: Application Tag data, AID A0000001524010

		* Tag value changes with card usage
Tag	Element name	Data Card v5.0
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	55 53 20 44 45 42 49 54 20 20 - 'US DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 00 05 D2 31 22 01 10 00 07 49 00 00 0F
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 00 05
5F 20	Cardholder Name	44 49 53 43 4F 56 45 52 20 43 41 52 44 4D 45 4D 42 45 52 20 - 'DISCOVER CARDMEMBER'
5F 24	Application Expiration Date	23 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E 65 73 66 72 - 'enesfr' (English, Spanish, French)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [DPAS CL]	10 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt NOT to be performed b3 - Issuer authentication NOT supported using External Auth command b1 - Combined DDA / GEN AC NOT supported
84	Dedicated File (DF) Name	A0 00 00 01 52 40 10
87	Application Priority Indicator	01
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 02 03 1F 03
94	Application File Locator (AFL)	08 01 02 00 18 01 01 00
9F 07	Application Usage Control	FF 00 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2:
		b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	b8 - Domestic cashback NOT allowed
9F 08 9F 10		b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 10	Issuer Application Data [DPAS CL]	<ul> <li>b8 - Domestic cashback NOT allowed</li> <li>b7 - International cashback NOT allowed</li> <li>00 01</li> </ul>
		b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed 00 01 xx 15 xx xx xx xx xx xx xx xx *



Ter		De	10								0	ي امع	<i>с</i> О
Tag	Element name	Da		0.4	0.57	02	06	0.57	0.3	06			/5.0
9F 38	Processing Options Data Object List (PDOL)						9C					IA	02
9F 4D	Transaction Log Entry	0в	0A										
9F 4F	Transaction Log Format	9F	02	06	5F	2A	02	9A	03	9F	36	02	9f
01 11	Transastion Log Format	34	03	9F	52	06	9F	1A	02	95	05	9C	01
							9F			9F	53	08	9F
				9F	71	02	9F	6C	02				
9F 6C	Card Transaction Qualifiers [DPAS]		00										
9F 71	Card Processing Requirements [DPAS]		89										
9F 71	Card Processing Requirements [DPAS]		89										
9F 78	Application State [D-PAS]	01											
BF 51	Contactless D-PAS MS and ZIP Default Profile	82	02	00	00	94	04	08	01	01	00		
C0	Contactless Application Configuration Options (CL-ACO)	03	88										
C2	Issuer Life Cycle Data (ILCD) [DPAS]	00	00	00	00	00	00	00	00	00	00	00	00
							00						
							00						
<u></u>	Currency Conversion Codes 1 [DDAS]				00		00	00	00	00	00	00	00
C3 C4	Currency Conversion Codes 1 [DPAS] Currency Conversion Codes 2 [DPAS]				01								
C4 C8	Lower Consecutive Offline Amount					00	00						
	(LCOA) Limit [DPAS]												
C9	Upper Consecutive Offline Amount Limit (UCOA) [DPAS]	00	00	00	00	00	00						
CA	Single Transaction Amount (STA) Limit [DPAS]	00	00	00	00	00	00						
СВ	Lower Consecutive Offline Limit (LCOL) [DPAS]	00											
CC	Upper Consecutive Offline Transaction Limit (UCOL) [DPAS]	00											
CD	Number of Consecutive Offline Transactions (NCOT) [DPAS]	00											
CE	Cumulative Offline Amount [DPAS]	00	00	00	00	00	00						
D0	Issuer Application Data ObjectList (IADOL) [DPAS]												
D1	Offline Balance [DPAS]	00	00	00	00	00	00						
D2	CRM Country Code [DPAS]	08	40	- U	SA								
D3	CRM Currency Code [DPAS]		40										
D4	CVM-Accumulator [DPAS]					00	00						
D5	CVM-Cum limit 1					00							
D6	CVM-Cum limit 2	00	00	00	00	00	00						
D7	CVM-STA limit 1	00	00	00	00	00	00						
D8	CVM-STA limit 2	00	00	00	00	00	00						
D9	CVM-Counter	00											
DA	CVM-Cons limit 1	00											
DB	CVM-Cons limit 2	00											
DE	Counter and Accumulator Control Options (CACO) [D-PAS]	C1	01	09	01	01	00						
DF 11	PDOL Check Table - Profile (PDOLP) [DPAS]	01	09	41	00	00	41	<b>A</b> 0	11	FF	01	01	



													_
Tag	Element name	Da	ta								Ca	rd v	5.0
DF 21	Transaction Profile Objects(TPO1)	40	40	00	10	00	08	01	02	00	00	00	00
	[DPAS]	00	00	00	00	00	00	00	00	00	00	00	00
		00	00	00	00	00	00	00	00	00	00	00	00
		00	FF	00	A0	8B	00	00	00	00	00	00	00
		00	00	00	00	00	00	00	00	00	00	00	00
		00	00	00	00	00	00	00	00	00	00	00	00 00
		00	00	00	00	00	00	00	00	00	00	00	00
		00	00	00	00	00	00	00	00	00	00	00	00
		00	00	00	00	00	00	00	00	00	00	00	00
		00	00	00	00	00	00	00	00	00	00	00	00
		00	00	00	00	00	00	00	•••	•••			
DF 30	CRM-CAC Switch Interface [D-PAS]	00	00	00									
DF 31	CRM-CAC Denial [D-PAS]	00	00	00									
DF 32	CRM-CAC Online [D-PAS]	C8	7E	FF									
DF 33	CRM-CAC Default [D-PAS]	98	3E	EB									
DF 34	CVM Card Action Codes - Online	40	80										
DF 35	CVM Card Action Codes - Signature	00	80										
DF 40	CL-Accumulator	00	00	00	00	00	00						
DF 41	CL-Cum Limit	00	00	00	00	00	00						
DF 42	CL-STA	00	00	00	00	00	00						-
DF 43	CL-Counter	00											
DF 44	CL-Cons Limit	00											-

# 4.12.7 Contactless: Application Tag data, AID A0000001523010

		* Tag value changes with card usage
Tag	Element name	Data Card v5.0
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	44 49 53 43 4F 56 45 52 20 44 45 42
		49 54 - 'DISCOVER DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 00 05 D2 31 22 01 10 00 07 49 00 00 0F
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 00 05
5F 20	Cardholder Name	44 49 53 43 4F 56 45 52 20 43 41 52
		44 4D 45 4D 42 45 52 20 - DISCOVER
55.04		CARDMEMBER'
5F 24	Application Expiration Date	23 12 31
5F 25	Application Effective Date	
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E 65 73 66 72 - 'enesfr' (English,
		Spanish, French)
5F 30	Service Code	
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [DPAS	10 00
	CL]	BYTE 1:
		b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt NOT to be performed
		b3 - Issuer authentication NOT supported using
		External Auth command
		b1 - Combined DDA / GEN AC NOT supported
84	Dedicated File (DF) Name	A0 00 00 01 52 30 10
87	Application Priority Indicator	02
94	Application File Locator (AFL)	08 01 02 00



		_
Tag	Element name	Data Card v5.0
9F 07	Application Usage Control	FF 00
		BYTE 1:
		b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback NOT allowed
0 - 00		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 01
9F 10	Issuer Application Data [DPAS CL]	xx 15 xx xx xx xx xx xx xx xx *
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List	9F 66 04 9F 02 06 9F 03 06 9F 1A 02
	(PDOL)	5F 2A 02 9A 03 9C 01 9F 37 04
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
	-	34 03 9F 52 06 9F 1A 02 95 05 9C 01
		8A 02 9F 37 04 9F 03 06 9F 53 08 9F
05.00		66 04 9F 71 02 9F 6C 02
9F 6C	Card Transaction Qualifiers [DPAS]	00 00
9F 71	Card Processing Requirements [DPAS]	00 8B
9F 71	Card Processing Requirements [DPAS]	00 8B
9F 78	Application State [D-PAS]	01
BF 51	Contactless D-PAS MS and ZIP Default Profile	82 02 00 00 94 04 08 01 01 00
C0	Contactless Application Configuration Options (CL-ACO)	03 88
C2	Issuer Life Cycle Data (ILCD) [DPAS]	00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00 00
		00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00<
C3	Currency Conversion Codes 1 [DBAS]	08 40 00 01 00
	Currency Conversion Codes 1 [DPAS]	08 40 00 01 00
C4	Currency Conversion Codes 2 [DPAS]	00 00 00 00 00 00
C8	Lower Consecutive Offline Amount (LCOA) Limit [DPAS]	
C9	Upper Consecutive Offline Amount Limit (UCOA) [DPAS]	00 00 00 00 00 00
CA	Single Transaction Amount (STA) Limit [DPAS]	00 00 00 00 00 00
СВ	Lower Consecutive Offline Limit (LCOL) [DPAS]	00
CC	Upper Consecutive Offline Transaction Limit (UCOL) [DPAS]	00
CD	Number of Consecutive Offline	00
	Transactions (NCOT) [DPAS]	
CE	Cumulative Offline Amount [DPAS]	00 00 00 00 00 00
D0	Issuer Application Data ObjectList	
	(IADOL) [DPAS]	
D1	Offline Balance [DPAS]	00 00 00 00 00 00
D2	CRM Country Code [DPAS]	08 40 - USA
D3	CRM Currency Code [DPAS]	08 40 - USD
<b>D</b> 4		
D4 D5	CVM-Accumulator [DPAS] CVM-Cum limit 1	00 00 00 00 00 00 00 00 00 00 00 00



Tag	Element name	Data Card v5.0
D6	CVM-Cum limit 2	00 00 00 00 00 00
D7	CVM-STA limit 1	00 00 00 00 00 00
D8	CVM-STA limit 2	00 00 00 00 00 00
D9	CVM-Counter	00
DA	CVM-Cons limit 1	00
DB	CVM-Cons limit 2	00
DE	Counter and Accumulator Control Options (CACO) [D-PAS]	C1 01 09 01 01 00
DF 11	PDOL Check Table - Profile (PDOLP) [DPAS]	01 09 41 00 00 41 A0 11 FF 01 01
DF 21	Transaction Profile Objects(TPO1)	40 40 00 10 00 08 01 02 00 00 00 00
	[DPAS]	00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00 00
		00 FF 00 A0 8B 00 00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00
DF 30	CRM-CAC Switch Interface [D-PAS]	00 00 00
DF 31	CRM-CAC Denial [D-PAS]	00 00 00
DF 32	CRM-CAC Online [D-PAS]	C8 7E FF
DF 33	CRM-CAC Default [D-PAS]	98 3E EB
DF 34	CVM Card Action Codes - Online	40 80
DF 35	CVM Card Action Codes - Signature	00 80
DF 40	CL-Accumulator	00 00 00 00 00 00
DF 41	CL-Cum Limit	00 00 00 00 00 00
DF 42	CL-STA	00 00 00 00 00 00
DF 43	CL-Counter	00
DF 44	CL-Cons Limit	00



## 4.13 Test Card 13 - Discover, CO, 1-AID (U.S. Debit), English, USA, USD

A contact-only, single-AID Discover debit card with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is \$79.00.

#### 4.13.1 Contact: CVM List - Discover U.S. Debit, AID A0000001524010

Cardho	Cardholder Verification Method List ('4203 1F03 0000')				
CVM	Verification Method	Conditions	If unsuccessful		
1	Online PIN	Terminal supports CVM type	Next CVM		
2	No CVM required	Terminal supports CVM type	Fail		
3	No CVM required	Always	Fail		

#### 4.13.2 Contact: Application Tag data, AID A0000001524010

		* Tag value changes with card usage
Tag	Element name	Data Card v5.0
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	55 53 20 44 45 42 49 54 - 'US DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 00 05 D2 31 22 01 10 00 07 49 00 00 0F
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 00 05
5F 20	Cardholder Name	55         53         41         20         44         45         42         49         54         2F         54         65           73         74         20         43         61         72         64         20         31         33         20         20           20         20         - 'USA DEBIT/Test Card 13'         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -
5F 24	Application Expiration Date	23 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	<ul> <li>18 00</li> <li>BYTE 1:</li> <li>b7 - Offline SDA NOT supported</li> <li>b6 - Offline DDA NOT supported</li> <li>b5 - Cardholder verification supported</li> <li>b4 - Terminal risk mgmt to be performed</li> <li>b3 - Issuer authentication NOT supported</li> <li>b1 - Combined DDA / GEN AC NOT supported</li> <li>BYTE 2:</li> <li>b8 - EMV Contactless NOT supported</li> </ul>
84	Dedicated File (DF) Name	A0 00 00 01 52 40 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 34 03
8D	Card Risk Management Data Object List 2 (CDOL2)	91 OA 8A 02 95 05 9F 37 04
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 02 03 1F 03 00 00 00 00
94	Application File Locator (AFL)	08 01 01 00 10 01 02 00 18 01 01 00



Tag	Element name	Data Card v5.0
9F 07	Application Usage Control	AB 00
		BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions NOT valid
		b6 - Domestic goods valid b5 - International goods NOT valid
		b4 - Domestic services valid
		b3 - International services NOT valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback NOT allowed
		b7 - International cashback NOT allowed
9F 0D	Issuer Action Code - Default	B0 68 C4 E8 00
9F 0E	Issuer Action Code - Denial	00 10 00 00 00
9F 0F	Issuer Action Code - Online	B0 68 C4 F8 00
9F 10	Issuer Application Data [DPAS]	xx 06 xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 44 65 62 69 74 - 'US Debit'
9F 17	Personal Identification Number (PIN)	03
	Try Counter	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 4D	Transaction Log Entry	OB OA
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
		34 03 9F 52 06 9F 1A 02 95 05 9C 01
		8A 02 9F 37 04 9F 03 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02
9F 78	Application State [D-PAS]	00
C1	Application Configuration Options	15 40
	[DPAS]	
C2	Issuer Life Cycle Data (ILCD) [DPAS]	00 00 00 00 00 00 00 00 00 00 00 00
02		00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00
C3	Currency Conversion Codes 1 [DPAS]	08 40 00 01 00
C4	Currency Conversion Codes 2 [DPAS]	08 40 00 01 00
C5	Card Action Code - Denial [DPAS]	01 00
C6	Card Action Code - Default [DPAS]	2E 1F
C7	Card Action Code - Online [DPAS]	FE 1F
D0	Issuer Application Data ObjectList	
	(IADOL) [DPAS]	
D2	CRM Country Code [DPAS]	08 40 - USA
D3	CRM Currency Code [DPAS]	08 40 - USD
DF 11	PDOL Check Table - Profile (PDOLP)	01 09 41 00 00 41 A0 00 0F 01 01
	[DPAS]	
DF 20	Transaction Profile Objects(TPO0)	00 18 00 08 01 01 00 10 01 02 00 18
	[DPAS]	01 01 00 00 00 00 00 00 00 00 00 00
	-	00 00 00 00 00 00 00 00 00 00 00 00 01
		00         FE         1F         2E         1F         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00<



# 4.14 Test Card 14 - DNA, CO, 1 AID (DNA), English, USA, USD

A contact-only, single-AID Debit Network Alliance debit card with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is \$10.00.

#### 4.14.1 Contact: CVM List - DNA, AID A0000006200620

Cardhol	Cardholder Verification Method List ('0201 0204 0203 1F03')			
CVM	Verification Method	Conditions	If unsuccessful	
1	Online PIN	Unattended Cash	Fail	
2	Online PIN	Manual Cash	Fail	
3	Online PIN	Terminal supports CVM type	Fail	
4	No CVM required	Always	Fail	

#### 4.14.2 Contact: Application Tag data, AID A000006200620

		* Tag value changes with card usage
Tag	Element name	Data Card v5.0
50	Application Label	44 4E 41 - 'DNA'
57	Track 2 Data [Discover]	40 00 00 00 00 00 00 28 D2 51 22 01 56 78 00 00 00 35 1F
5A	Application Primary Account Number (PAN)	40 00 00 00 00 00 00 28
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 31 34 20 20 20 20 - 'USA DEBIT/Test Card 14'
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile	<ul> <li>18 00</li> <li>BYTE 1:</li> <li>b7 - Offline SDA NOT supported</li> <li>b6 - Offline DDA NOT supported</li> <li>b5 - Cardholder verification supported</li> <li>b4 - Terminal risk mgmt to be performed</li> <li>b3 - Issuer authentication NOT supported</li> <li>b1 - Combined DDA / GEN AC NOT supported</li> <li>BYTE 2:</li> <li>b8 - EMV Contactless NOT supported</li> </ul>
84	Dedicated File (DF) Name	A0 00 00 06 20 06 20
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 34 03
8D	Card Risk Management Data Object List 2 (CDOL2)	91 OA 8A 02 95 05 9F 37 04
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 02 01 02 04 02 03 1F 03
94	Application File Locator (AFL)	08 01 01 00 18 01 02 01



Tag	Element name	Data Card v5.0
9F 07	Application Usage Control	FF 00 BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid BYTE 2:
		bill 2. b8 - Domestic cashback NOT allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 01
9F 0D	Issuer Action Code - Default	F0 40 E4 28 00
9F 0E	Issuer Action Code - Denial	00 10 00 00 40
9F 0F	Issuer Action Code - Online	F0 68 FC F8 00
9F 10	Issuer Application Data [DPAS]	xx xx A0 xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	44 65 62 69 74 - 'Debit'
9F 17	Personal Identification Number (PIN)	03
05.00	Try Counter	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80 xx xx *
9F 36	Application Transaction Counter (ATC)	OB 0A
9F 4D 9F 4F	Transaction Log Entry	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
96 46	Transaction Log Format	34 03 9F 52 06 9F 1A 02 95 05 9C 01
		8A 02 9F 37 04 9F 03 06 9F 53 08 9F
		66 04 9F 71 02 9F 6C 02
9F 78	Application State [D-PAS]	00
C1	Application Configuration Options [DPAS]	15 60
C2	Issuer Life Cycle Data (ILCD) [DPAS]	00 00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
C3	Currency Conversion Codes 1 [DPAS]	08 40 00 00 02
C4	Currency Conversion Codes 2 [DPAS]	08 40 00 00 02
D0	Issuer Application Data ObjectList (IADOL) [DPAS]	
D2	CRM Country Code [DPAS]	08 40 - USA
D2 D3	CRM Currency Code [DPAS]	08 40 - USD
DF 20	Transaction Profile Objects(TPO0)	00 18 00 08 01 01 00 18 01 02 01 00
2. 20	[DPAS]	00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 01
		00 F6 1F 22 0B 00 00 00 00 00 00 00 00 00 00 00 00



### 4.15 Test Card 15 - Interac, DI, 1-AID (Interac), English, CAN, CAD

A Dual Interface (Contact+Contactless), 1-AID(Interac) Interac (Canadian) debit card with an Issuer Country Code of 'Canada' and Currency Code of 'CAD'.

The recommended transaction amount to generate a host approval is \$30.00.

#### 4.15.1 Contact: CVM List - Interac, AID A0000002771010

Cardholder Verification Method List ('0103 0203')				
CVM	Verification Method	Conditions	If unsuccessful	
1	Offline Plaintext PIN	Terminal supports CVM type	Fail	
2	Online PIN	Terminal supports CVM type	Fail	

#### 4.15.2 Contact: Application Tag data, AID A0000002771010

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'
57	Track 2 Equivalent Data	19 67 30 28 39 01 86 44 D2 21 22 20 08 97 74 00 00 00 1F
5A	Application Primary Account Number (PAN)	19 67 30 28 39 01 86 44
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 31 35 20 20 20 20 - 'USA DEBIT/Test Card 15'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	01 24 - CAN
5F 2D	Language Preference	65 6E 66 72 - 'enfr' (English, French)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	01
5F 56	Issuer Country Code (alpha3 format)	43 41 4E - 'CAN'
82	Application Interchange Profile	<ul> <li>18 00</li> <li>BYTE 1:</li> <li>b7 - Offline SDA NOT supported</li> <li>b6 - Offline DDA NOT supported</li> <li>b5 - Cardholder verification supported</li> <li>b4 - Terminal risk mgmt to be performed</li> <li>b3 - Issuer authentication NOT supported</li> <li>b1 - Combined DDA / GEN AC NOT supported</li> <li>BYTE 2:</li> <li>b8 - EMV Contactless NOT supported</li> </ul>
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F       02       06       9F       03       06       9F       1A       02       95       05       5F         2A       02       9A       03       9C       01       9F       37       04       9F       45       02         9F       4C       08       9F       34       03       03
8D	Card Risk Management Data Object List 2 (CDOL2)	91 OA 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 01 03 02 03
94	Application File Locator (AFL)	08 01 02 00 10 01 01 00



Tag	Element name	Data Card v4.0						
9F 07	Application Usage Control	FF 00 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed						
9F 08	Application Version Number	00 02						
9F 0D	Issuer Action Code - Default	FC E8 FC 98 00						
9F 0E	Issuer Action Code - Denial	00 00 00 00 00						
9F 0F	Issuer Action Code - Online	FC E8 FC 98 00						
9F 10	Issuer Application Data [InteracFlash]	xx xx 85 xx						
9F 13	Last Online Application Transaction Counter (ATC) Register	00 00						
9F 17	Personal Identification Number (PIN) Try Counter	09						
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *						
9F 27	Cryptogram Information Data (CID)	80						
9F 36	Application Transaction Counter (ATC)	xx xx *						
9F 38	Processing Options Data Object List (PDOL)	9F 02 06 9F 1A 02 5F 2A 02 9F 37 04						
9F 42	Application Currency Code	01 24 - CAD						
9F 44	Application Currency Exponent	02						
9F 4D	Transaction Log Entry	0B 0A						
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 8A 02						
9F 62	Card Product Code [InteracFlash]	00 01						
9F 70	Form Factor Indicator [InteracFlash]	00						
DF 62	Application Selection Flag [Canada]	80 80						

# 4.15.3 Contactless: CVM List - Interac Flash, AID A0000002771010

Cardholder Verification Method List ('0203 0103')								
CVM	Verification Method	If unsuccessful						
1	Online PIN	Terminal supports CVM type	Fail					
2	Offline Plaintext PIN	Terminal supports CVM type	Fail					

# 4.15.4 Contactless: Application Tag data, AID A0000002771010

		* Tag value changes with card usage									
Tag	Element name Data										
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'									
57	Track 2 Equivalent Data	19 67 30 28 39 01 86 44 D2 21 22 20 08 97 74 00 00 00 1F									
5A	Application Primary Account Number (PAN)	19 67 30 28 39 01 86 44									
5F 20	Cardholder Name	55         53         41         20         44         45         42         49         54         2F         54         65           73         74         20         43         61         72         64         20         31         35         20         20           20         20         - 'USA DEBIT/Test Card 15'									
5F 24	Application Expiration Date	22 12 31									
5F 25	Application Effective Date	xx xx xx *									
5F 28	Issuer Country Code	01 24 - CAN									



-		
Tag	Element name	Data Card v4.0
5F 2D	Language Preference	65 6E 66 72 - 'enfr' (English, French) 02 20
5F 30	Service Code	01
5F 34	Application PAN Sequence Number	18 00
82	Application Interchange Profile	BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported
		b1 - Combined DDA / GEN AC NOT supported BYTE 2:
		b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
•••	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 45 02
		9F 4C 08 9F 34 03
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 00 02 03 1F 03
	List	
94	Application File Locator (AFL)	08 01 03 00
9F 07	Application Usage Control	FF 00
		BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid BYTE 2:
		b8 - Domestic cashback NOT allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	FC E8 FC 98 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC E8 FC 98 00
9F 10	Issuer Application Data [InteracFlash]	xx xx 85 xx
		xx *
9F 13	Last Online Application Transaction	xx xx *
	Counter (ATC) Register	
9F 17	Personal Identification Number (PIN)	09
	Try Counter	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx * 80
9F 27	Cryptogram Information Data (CID)	ou xx xx *
9F 36	Application Transaction Counter (ATC)	xx xx ^ 9F 59 03 9F 5A 01 9F 02 06 9F 1A 02
9F 38	Processing Options Data Object List (PDOL)	5F 2A 02 9F 37 04 9F 58 01
05.40		01 24 - CAD
9⊢ 42	Application Currency Code	
9F 42 9F 44	Application Currency Code Application Currency Exponent	02
9F 44	Application Currency Exponent	
9F 44 9F 4D	Application Currency Exponent Transaction Log Entry	02
9F 44	Application Currency Exponent	02 0B 0A
9F 44 9F 4D	Application Currency Exponent Transaction Log Entry	02 0B 0A 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
9F 44 9F 4D 9F 4F	Application Currency Exponent Transaction Log Entry Transaction Log Format	02 0B 0A 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 8A 02
9F 44 9F 4D 9F 4F 9F 62	Application Currency Exponent Transaction Log Entry Transaction Log Format Card Product Code [InteracFlash]	02 0B 0A 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 8A 02 00 01



## 4.16 Test Card 16 - Interac, CO, 1-AID (Interac), English, CAN, CAD

A contact-only, 1-AID(Interac) Interac (Canadian) debit card with an Issuer Country Code of 'Canada' and Currency Code of 'CAD'.

The recommended transaction amount to generate a host approval is \$30.00.

#### 4.16.1 Contact: CVM List - Interac, AID A0000002771010

Cardholder Verification Method List ('4103 0203')									
CVM	Verification Method	Conditions	If unsuccessful						
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM						
2	Online PIN	Terminal supports CVM type	Fail						

#### 4.16.2 Contact: Application Tag data, AID A0000002771010

		* Tag value changes with card usage
Tag	Element name	Data Card v4.0
50	Application Label	49 4E 54 45 52 41 43 - 'INTERAC'
57	Track 2 Equivalent Data	45 06 44 50 06 93 19 33 D2 21 22 20 01 62 90 74 00 00 0F
5A	Application Primary Account Number (PAN)	45 06 44 50 06 93 19 33
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 31 36 20 20 20 20 - 'USA DEBIT/Test Card 16'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	01 24 - CAN
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile	1C 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 41 03 02 03
8F	Certification Authority Public Key Index	55



Tag	Element name	Data Card v4.0
90	Issuer Public Key Certificate	6C 16 73 99 B8 BE 0C CA 2A A9 EF 30
	,	EC F5 14 C4 F4 F1 F0 89 85 8A 46 08
		6F 12 F2 80 B6 81 FD CA 40 8C 09 51
		C0 D6 BA 64 FD 05 C7 2C 5A 23 B2 66
		DA 11 D6 75 BA B2 AC 74 C5 AF E0 41
		A6 94 2D 84 FC 19 0D C0 6D 83 CF 17 71 F2 F9 74 B8 31 73 5A A1 30 39 4D
		12 DC CF D5 74 61 D1 20 E5 58 F6 35
		12 F6 DB 82 46 DD 41 00 9F A1 D9 73
		1B 27 42 F9 7E FD 2B C1 16 DF B9 AF
		7A 96 6A CF 12 83 A8 49 A7 A9 73 6A
		OD 8A E2 63 98 36 BC A6 9B D9 EE 78
92	Issuer Public Key Remainder	EC A4 19 2A 02 CA AC 0B 75 22 44 EC
	•	AE 9F 1A BA 46 15 E7 05 27 AD D0 D8
		03 67 54 CA 9F A5 2E 7D 42 16 22 0F
93	Signed Static Application Data	8E 85 10 B3 4A D5 75 23 55 88 FA 87
		FA 27 F7 47 AC 0C F3 0E 61 71 55 83
		E6 DD D8 53 13 A1 99 C7 A6 77 7A 02 BE CF 20 18 14 99 AB 7A 9A 2E A3 09
		F0 B0 94 0C 03 34 0B AB 91 CC 6E 46
		52 44 93 D4 CD 22 0B 62 36 27 64 7D
		23 03 B0 03 8A C5 E5 5B 80 D1 B4 EC
		01 68 4F 43 AB EC A9 03 77 48 6C 26
		CE 1D 5E 83 73 90 1C E1 6C 5F 9C 70
		C5 44 53 67 94 3F 8F 03 91 0E 67 C9
		D4 3E F7 92 D8 35 D2 D2 42 D4 DA 6F
		C7 6B E1 71 52 05 75 1B 79 F4 51 33
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 10 06 06 00 B0 01 01 00
9F 07	Application Usage Control	FF 00
		BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback NOT allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 01
9F 0D	Issuer Action Code - Default	B0 70 BC 80 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 11	Issuer Code Table Index	01
9F 11 9F 12	Application Preferred Name	49 6E 74 65 72 61 63 - 'Interac'
		49 6E 74 65 72 61 63 - Interac
9F 13	Last Online Application Transaction	
	Counter (ATC) Register	0.0
9F 17	Personal Identification Number (PIN) Try Counter	09
9F 1F	Track 1 Discretionary Data	31 36 32 39 30 37 34 30 30 30 30 31
	-	30 30 30 30 30 30 30 30 30 30 30 30 30
9F 32	Issuer Public Key Exponent	03
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List (PDOL)	9F 02 06 9F 1A 02
0E 44		02
9F 44	Application Currency Exponent	V2



		_									_		
Tag	Element name	Data 31 AE EC E5 72 75 2D 6E E7								Card v4.0			
9F 46	ICC Public Key Certificate	-		-	-		-		-				
			в0				EE	-					-
		-	FC			-			-	-	-		
		-	1D 51		-			-		-		-	-
			B8	-		-		-	-	-	-	-	
			<sub>Б0</sub>	-	-			-			-	-	
			08			-							-
		-	в6	-	-				-	-		-	-
		2A	FD	в0	4C	23	C1	0F	1C	FC	42	<b>A</b> 5	E4
		F2	9A	1C	DA	94	67	F3	38	F0	E1	0C	48
		47	46	BD	BB	57	2в	21	4C	11	25	26	D3
9F 47	ICC Public Key Exponent	03											
9F 48	ICC Public Key Remainder	C7	FC	17	8E	7A	76	F6	F4	17	BC	8F	E6
			9F	89	15	DE	93	в5	E5	ED	38	EF	EC
		-	69										
9F 49	Dynamic Data Authentication Data	9F	37	04									
	Object List (DDOL)												
9F 4A	Static Data Authentication Tag List	82											
9F 51	Lower Cumulative Offline Limit	01	24										
	[InteracFlash]												
9F 52	Merchant Type Indicator Limits 01	C0	38	00	00	00	00						
	[InteracFlash]												
9F 54	Merchant Type Indicator Limits 02	00	00	00	00	00	00						
	[InteracFlash]												
9F 56	Merchant Type Indicator Limits 04	80											
01 00	[InteracFlash]												
9F 57	Merchant Type Indicator Limits 05	01	24										
01 07	[InteracFlash]	_											
9F 5C	Upper Cumulative Offline Limit	00	00	00	00	00	00						
91 90		00	00	00	00	00	00						
	[InteracFlash]	10	00	10	00								
9F 68	Contact CIAC Default [InteracFlash]		00										
9F 6D	Contactless CIAC Online [InteracFlash]	00	00	00	00	00	00						



# Chapter 5 - ASCII Character Conversion Chart

Dec	Bin	Hex	Char	Dec	Bin	Hex	Char	Dec	Bin	Hex	Char
00	00000000	00	NUL	44	00101100	2C		88	01011000	58	X
01	00000001	01	SOH	45	00101101	20 2D	,	89	01011001	59	Y
02	00000010	02	STX	46	00101110	2E		90	01011010	5A	Z
03	00000011	03	ETX	47	00101111	 2F	. /	91	01011011	5B	- 1
04	00000100	04	EOT	48	00110000	30	0	92	01011100	5C	Ň
05	00000101	05	ENQ	49	00110001	31	1	93	01011101	5D	1
06	00000110	06	ACK	50	00110010	32	2	94	01011110	5E	^
07	00000111	07	BEL	51	00110011	33	3	95	01011111	5F	
08	00001000	08	BS	52	00110100	34	4	96	01100000	60	``
09	00001001	09	HT	53	00110101	35	5	97	01100001	61	а
10	00001010	0A	LF	54	00110110	36	6	98	01100010	62	b
11	00001011	0B	VT	55	00110111	37	7	99	01100011	63	С
12	00001100	0C	FF	56	00111000	38	8	100	01100100	64	d
13	00001101	0D	CR	57	00111001	39	9	101	01100101	65	е
14	00001110	0E	SO	58	00111010	ЗA	:	102	01100110	66	f
15	00001111	0F	SI	59	00111011	3B	;	103	01100111	67	g
16	00010000	10	DLE	60	00111100	3C	<	104	01101000	68	h
17	00010001	11	DC1	61	00111101	3D	=	105	01101001	69	i
18	00010010	12	DC2	62	00111110	3E	>	106	01101010	6A	j
19	00010011	13	DC3	63	00111111	3F	?	107	01101011	6B	k
20	00010100	14	DC4	64	01000000	40	@	108	01101100	6C	I
21	00010101	15	NAK	65	01000001	41	Α	109	01101101	6D	m
22	00010110	16	SYM	66	01000010	42	В	110	01101110	6E	n
23	00010111	17	ETB	67	01000011	43	С	111	01101111	6F	0
24	00011000	18	CAN	68	01000100	44	D	112	01110000	70	р
25	00011001	19	EM	69	01000101	45	E	113	01110001	71	q
26	00011010	1A	SUB	70	01000110	46	F	114	01110010	72	r
27	00011011	1B	ESC	71	01000111	47	G	115	01110011	73	S
28	00011100	1C	FS	72	01001000	48	Н	116	01110100	74	t
29	00011101	1D	GS	73	01001001	49	I	117	01110101	75	u
30	00011110	1E	RS	74	01001010	4A	J	118	01110110	76	v
31	00011111	1F	US	75	01001011	4B	K	119	01110111	77	W
32	00100000	20	SP	76	01001100	4C	L	120	01111000	78	X
33	00100001	21	!	77	01001101	4D	M	121	01111001	79	У
34	00100010	22	"	78	01001110	4E	N	122	01111010	7A	z
35	00100011	23	#	79	01001111	4F	0	123	01111011	7B	{
36	00100100	24	\$	80	01010000	50	P	124	01111100	7C	ĻĻ
37	00100101	25	%	81	01010001	51	Q	125	01111101	7D	}
38	00100110	26	&	82	01010010	52	R	126	01111110	7E	~
39	00100111	27		83	01010011	53	S	127	01111111	7F	DEL
40	00101000	28	(	84	01010100	54	Т				
41	00101001	29	)	85	01010101	55	U				
42	00101010	2A	*	86	01010110	56	V				
43	00101011	2B	+	87	01010111	57	W				