

USA Debit EMV™ Test Plan

Version 10.00

August 2022



To view this document online, scan QR Code below.



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 USA Debit EMV[™] Test Card Set (16 cards) only.

Attributions

EMV[™] 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

www.b2ps.com

Canada 251 Consumers Road, Suite 1200, Toronto, ON M2J 4R3 Tel: 416.730.9827

U.S.A. 1615 S. Congress Avenue, Suite 103, Delray Beach, FL 33445 Tel: 470.233.7374

Revision History

Version	Date	Revisions			
1.00	December 09, 2017	Initial document release			
1.10	December 14, 2017	 Recommended transaction \$value updated for cards 13, 15, 16 			
1.20	May 30, 2018	 Renumbered Test Cases: CD.MMCL.C03-T01 corrected to CD.MCCL.C03-T01 CD.MMCL.C03-T02 became CD.MCCL.C03-T03 Updated Test Cases: CD.MCCL.C03-T01 CD.MCCL.C08-T01 CD.MCCL.C11-T01 CD.MCCL.C11-T03 New Test Cases: CD.MCCL.C03-T02 			
1.30	June 1, 2018	 Removed Test Cases: CD.MCCL.C08-T03 CD.MCCL.C12-T03 CD.MCCL.C12-T04 Renumbered Test cases: CD.MCCL.C08-T04 became CD.MCCL.C08-T0<u>3</u> Updated Test Cases: CD.MCCL.C08-T02 CD.MCCL.C08-T03 CD.MCCL.C09-T01 Card version numbers (profile table, Tag data) updated to match physical card version - all are currently v4.0. Tags 82, 9F07, 9F69: interpretation of bit values added 			
2.00	August 20, 2018	TC03: updated to v5.0 - Tag 57 modified			
3.00	September 27, 2018	 Tag 82 (AIP) updated on non-Visa cards Discover cards (TC12, TC13) - Expiry date changed to 23/12 DNA Card (TC14) - Expiry date changed to 25/12 			
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			
4.01	June 7, 2019	 Card set on which tests are based renamed to "USA Debit EMV Test Card Set". No change to cards themselves. 			
5.00	June 21, 2019	TC16: updated to v5.0 - Language indicator modified			
6.00	July 7, 2020	TC10: Support for new physical cardstock added. No discernible change to EMV tags			

Version	Date	Revisions			
6.10	February 18, 2021	 TC15: MTI (Contactless) tags 9F52, 9F54, 9F55, 9F56, 9F57 revealed. 			
7.00	March 23, 2021	• TC05-TC11: (Mastercard/Maestro) change Expiry Date to 25/12			
8.00	December 14, 2021	 TC01-TC04: card expiry date updated TC01, TC05: PAR (Tag 9F 24) added TC15: replaced with updated DI card (Interac Flash BIN '00') TC16: Interac card replaced with Mastercard Credit/Debit/ U.S. Maestro card 			
9.00	March 18, 2022	TC15: new BIN, PAN, DES keys			
10.00	August 15, 2022	 TC12-13 – Discover cards change Expiry Date to 05/26. New PANs assigned. TC14 – DNA card. Support for new cardstock. No change 			
		to functionality			

Table of Contents

Chapter	r 1 - Ov	erview		7
1.1	USA D	ebit EMV T	est Plan - Purpose	7
1.2	Target	Audience.		7
1.3	Syster	n Requirem	ients	7
Chapter	r 2 - Im	plementir	ng U.S. Debit	8
2.1		-	bit Scenarios	
2.2	Applic	ation Selec	tion for U.S. Debit with Cardholder Verification Handling	
2.3	• •		rchants:	
2.3		-	pting Merchants:	
2.4			ocessing	
			sing Flowchart PIN Preferring Merchants	
2.6			-	
2.7			sing Flowchart - Credit/Debit Prompting Merchants	
Chapter			EMV Test Plan	
3.1	Test C	ase Outline)	17
3.2	Select	ing Applica	ble Test Cases	17
3.3	USA D	ebit EMV T	est Cases	17
	3.3.1		ID and Title	
	3.3.2			
	3.3.3			
	3.3.4		sites	
	3.3.5	•		
	3.3.6		ria	
	3.3.7			
	3.3.8 3.3.9	-	list of AIDs used in USA Debit EMV Test Card Set rring, Merchant Controlled Candidate List – Test Cases	
	3.3.9	3.3.9.1	PP.MCCL.C01-T01	
		3.3.9.1	PP.MCCL.C01-T02	
		3.3.9.3	PP.MCCL.C01-T03	
		3.3.9.4	PP.MCCL.C01-T04	
		3.3.9.5	PP.MCCL.C02-T01	
		3.3.9.6 3.3.9.7	PP.MCCL.C02-T02 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	
		3.3.9.12	PP.MCCL.C05-T02	
		3.3.9.14	PP.MCCL.C05-T04	
		3.3.9.15	PP.MCCL.C06-T01	
		3.3.9.16	PP.MCCL.C06-T02	
		3.3.9.17	PP.MCCL.C07-T01 PP.MCCL.C07-T02	
		3.3.9.18 3.3.9.19	PP.MCCL.C07-T02	
		3.3.9.20	PP.MCCL.C08-T01	
		3.3.9.21	PP.MCCL.C08-T02	43
		3.3.9.22	PP.MCCL.C08-T03	
		3.3.9.23 3.3.9.24	PP.MCCL.C08-T04 PP.MCCL.C09-T01	-
		3.3.9.24 3.3.9.25	PP.MCCL.C09-T01	

	3.3.9.26	PP.MCCL.C09-T03	48
	3.3.9.27	PP.MCCL.C09-T04	
	3.3.9.28	PP.MCCL.C10-T01	
	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	
	3.3.9.33	PP.MCCL.C11-T04	
	3.3.9.34	PP.MCCL.C12-T01	
	3.3.9.35	PP.MCCL.C12-T02	
	3.3.9.36	PP.MCCL.C12-T03	
	3.3.9.30	PP.MCCL.C12-T03 PP.MCCL.C12-T04	
	3.3.9.38	PP.MCCL.C13-T01	
	3.3.9.39	PP.MCCL.C13-T02	
	3.3.9.40	PP.MCCL.C14-T01	
	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	65
	3.3.10.1	PP.SEAS.C01-T01	65
	3.3.10.2	PP.SEAS.C01-T02	
	3.3.10.3	PP.SEAS.C01-T03	
	3.3.10.4	PP.SEAS.C01-T04	
	3.3.10.4		
		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	
	3.3.10.9	PP.SEAS.C03-T02	
	3.3.10.10	PP.SEAS.C03-T03	
	3.3.10.11	PP.SEAS.C03-T04	75
	3.3.10.12	PP.SEAS.C04-T01	76
	3.3.10.13	PP.SEAS.C05-T01	77
	3.3.10.14	PP.SEAS.C05-T02	
	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	
	3.3.10.19	PP.SEAS.C06-T02	
	3.3.10.20	PP.SEAS.C07-T01	
	3.3.10.21	PP.SEAS.C07-T02	
		PP.SEAS.C07-T02 PP.SEAS.C07-T03	
	3.3.10.22		
	3.3.10.23	PP.SEAS.C08-T01	-
	3.3.10.24	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	
	3.3.10.29	PP.SEAS.C09-T03	93
	3.3.10.30	PP.SEAS.C09-T04	94
	3.3.10.31	PP.SEAS.C09-T05	95
	3.3.10.32	PP.SEAS.C10-T01	96
	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-T04	
	3.3.10.37	PP.SEAS.C11-104 PP.SEAS.C11-T05	
		PP.SEAS.C11-105 PP.SEAS.C11-T06	
	3.3.10.39		
	3.3.10.40	PP.SEAS.C11-T07	
	3.3.10.41	PP.SEAS.C12-T01	
	3.3.10.42	PP.SEAS.C12-T02	
	3.3.10.43	PP.SEAS.C12-T03	
	3.3.10.44	PP.SEAS.C12-T04	
	3.3.10.45	PP.SEAS.C12-T05	
	3.3.10.46	PP.SEAS.C12-T06	
	3.3.10.47	PP.SEAS.C13-T01	111

	3.3.10.48	PP.SEAS.C13-T02	
	3.3.10.49	PP.SEAS.C14-T01	
	3.3.10.50	PP.SEAS.C15-T01	
	3.3.10.51	PP.SEAS.C16-T01	
3.3.11		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 CD.MCCL.C02-T01	
	3.3.11.5	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-T02	
	3.3.11.13	CD.MCCL.C05-T03	
	3.3.11.14	CD.MCCL.C05-T04	
	3.3.11.15 3.3.11.16	CD.MCCL.C06-T01 CD.MCCL.C06-T02	
	3.3.11.10	CD.MCCL.C08-102 CD.MCCL.C07-T01	
	3.3.11.17	CD.MCCL.C07-T02	
	3.3.11.19	CD.MCCL.C07-T03	134
	3.3.11.20	CD.MCCL.C08-T01	
	3.3.11.21	CD.MCCL.C08-T02	
	3.3.11.22	CD.MCCL.C08-T03	
	3.3.11.23	CD.MCCL.C09-T01	138
	3.3.11.24	CD.MCCL.C09-T02	
	3.3.11.25	CD.MCCL.C10-T01	
	3.3.11.26	CD.MCCL.C10-T02	
	3.3.11.27	CD.MCCL.C11-T01	
	3.3.11.28	CD.MCCL.C11-T02	
	3.3.11.29	CD.MCCL.C11-T03	
	3.3.11.30 3.3.11.31	CD.MCCL.C11-T04 CD.MCCL.C12-T01	
	3.3.11.31	CD.MCCL.C12-T01	
	3.3.11.33	CD.MCCL.C13-T01	
	3.3.11.34	CD.MCCL.C13-T02	
	3.3.11.35	CD.MCCL.C14-T01	
	3.3.11.36	CD.MCCL.C15-T01	
	3.3.11.37	CD.MCCL.C16-T01	
3.3.12	Credit/Debit	Selection, Standard EMV Application Selection – Test Cases	153
	3.3.12.1	CD.SEAS.C01-T01	
	3.3.12.2	CD.SEAS.C01-T02	
	3.3.12.3	CD.SEAS.C01-T03	
	3.3.12.4	CD.SEAS.C01-T04	
	3.3.12.5	CD.SEAS.C02-T01	157
	3.3.12.6	CD.SEAS.C02-T02	158
	3.3.12.7	CD.SEAS.C03-T01	
	3.3.12.8	CD.SEAS.C03-T02	160
	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 3.3.12.13	CD.SEAS.C05-T02 CD.SEAS.C05-T03	
	3.3.12.13	CD.SEAS.C05-T03 CD.SEAS.C05-T04	
	3.3.12.14	CD.SEAS.C06-T01	
	3.3.12.16	CD.SEAS.C06-T02	
	3.3.12.17	CD.SEAS.C07-T01	
	3.3.12.18	CD.SEAS.C07-T02	
	3.3.12.19	CD.SEAS.C07-T03	
	3.3.12.20	CD.SEAS.C08-T01	
	3.3.12.21	CD.SEAS.C08-T02	
	3.3.12.22	CD.SEAS.C08-T03	174

		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	
		3.3.12.30 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	
		3.3.12.36 CD.SEAS.C12-T01	-
		3.3.12.37 CD.SEAS.C12-T02	189
		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	194
		3.3.12.43 CD.SEAS.C14-T01	
		3.3.12.44 CD.SEAS.C15-T01 3.3.12.45 CD.SEAS.C16-T01	
O I (4 110		
Chapter		A Debit EMV Test Card Set Profiles	
4.1	Test Ca	rd 01 - Visa, DI, 2-AID (Visa Debit+US Debit), English, USA, USD	
	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	CTLS: Application Tag data, AID A000000031010, (qVSDC, online, ODA)	
	4.1.6	CTLS: Application Tag data, AID A000000980840, (qVSDC, offline)	208
4.2	Test Ca	rd 02 - Visa, CO, 1-AID (US Debit), English, USA, USD	210
	4.2.1	Contact: CVM List - US Debit, AID - A000000980840	210
	4.2.2	Contact: Application Tag data, AID A000000980840	210
4.3	Test Ca	rd 03 - Visa, CO, 3-AID (Credit+Debit+US Common, 2-Funding), English, US	
	404	USD Contact: CVM List - Visa Credit, AID - A00000003101001	
	4.3.1 4.3.2	Contact: CVW List - Visa Credit, AID - A00000003101001	
	4.3.3	Contact: CVM List - Visa Debit, AID A00000003101002	
	4.3.4	Contact: Application Tag data, AID A00000003101002	
	4.3.5	Contact: CVM List - U.S. Common Debit, AID A0000000980840	
	4.3.6	Contact: Application Tag data, AID A000000980840	
4.4		rd 04 - Visa, CO, 1-AID (Interlink), English, USA, USD	
	4.4.1	Contact: CVM List - Visa Interlink, AID A000000033010	
	4.4.2	Contact: Application Tag data, AID A000000033010	219
4.5	Test Ca	rd 05 - Mastercard, DI, 2-AID (Mastercard Debit+US Debit), English, USA, US	
	4.5.1	Contact: CVM List - Mastercard debit, AID A000000041010	
	4.5.2	Contact: Application Tag data, AID A000000041010	
	4.5.3	Contact: CVM List - U.S. Maestro, AID A000000042203	
	4.5.4	Contact: Application Tag data, AID A000000042203	
	4.5.5	CTLS: CVM List - Mastercard debit, AID A000000041010 (PayPass)	
	4.5.6	CTLS: Application Tag data, AID A000000041010 (PayPass)	229
	4.5.7	CTL C: C) (ALList, LLC, Magazina, ALD, A0000000402002 (Day Daga)	231
	4.0.7	CTLS: CVM List - U.S. Maestro, AID A000000042203 (PayPass)	

4.6	Test Ca	ard 06 - Maestro, CO, 1-AID (2-Funding), English, NLD, EUR	234
	4.6.1	Contact: CVM List - Maestro Debit, AID A000000043060D0561111	234
	4.6.2	Contact: Application Tag data, AID A000000043060D0561111	234
	4.6.3	Contact: CVM List - Maestro Debit, AID A000000043060D0562222	237
	4.6.4	Contact: Application Tag data, AID A000000043060D0562222	237
4.7	Test Ca	ard 07 - Mastercard Int'I, CO, 2-AID (Credit+Debit), English, GBR, GBP	241
	4.7.1	Contact: CVM List - Mastercard credit, AID A000000041010	241
	4.7.2	Contact: Application Tag data, AID A000000041010	241
	4.7.3	Contact: CVM List - Maestro debit, AID A000000043060	244
	4.7.4	Contact: Application Tag data, AID A000000043060	244
4.8	Test Ca	ard 08 - U.S. Maestro, CO, 1-AID (2-Funding), English, USA, USD	248
	4.8.1	Contact: CVM List - Mastercard U.S. Checking, AID A000000042203D0561111	248
	4.8.2	Contact: Application Tag data, AID A000000042203D0561111	248
	4.8.3	Contact: CVM List - Mastercard U.S. Savings, AID A000000042203D0562222	251
	4.8.4	Contact: Application Tag data, AID A000000042203D0562222	251
4.9	Test Ca	ard 09 - Mastercard, CO, 3-AID (Credit+Maestro x2), English, USA, USD	255
	4.9.1	Contact: CVM List - Mastercard credit, AID A000000041010	255
	4.9.2	Contact: Application Tag data, AID A000000041010	255
	4.9.3	Contact: CVM List - Maestro debit, AID A000000043060	258
	4.9.4	Contact: Application Tag data, AID A000000043060	258
	4.9.5	Contact: CVM List - U.S. Maestro, AID A000000042203	261
	4.9.6	Contact: Application Tag data, AID A000000042203	262
4.10	Test Ca	ard 10 - Mastercard CO, Contact, 1-AID (US Maestro), English, USA, USD	265
	4.10.1	Contact: CVM List - U.S. Maestro, AID A000000043060	265
	4.10.2	Contact: Application Tag data, AID A000000043060	265
4.11	Test Ca	ard 11 - Mastercard, CO, 4-AID (MC+USM/Maestro+USM), English, USA, USI	D268
	4.11.1	Contact: CVM List - Mastercard debit, AID A000000041010	268
	4.11.2	Contact: Application Tag data, AID A000000041010	268
	4.11.3	Contact: CVM List - U.S. checking, AID A00000004220301	271
	4.11.4	Contact: Application Tag data, AID A00000004220301	271
	4.11.5	Contact: CVM List - Maestro debit, AID A000000043060	275
	4.11.6	Contact: Application Tag data, AID A000000043060	
	4.11.7	Contact: CVM List - U.S. Savings debit, AID A00000004220302	278
	4.11.8	Contact: Application Tag data, AID A00000004220302	278
4.12	Test Ca	ard 12 - Discover, DI, 2-AID (U.S. Debit, Discover), Eng/Spa/Fre, USA, USD	282
	4.12.1	Contact: CVM List - Discover U.S. Debit, AID A0000001524010	282
	4.12.2	Contact: Application Tag data, AID A0000001524010	282
	4.12.3	Contact: CVM List - Discover Debit, AID A0000001523010	283
	4.12.4	Contact: Application Tag data, AID A0000001523010	
			00) 295
	4.12.5	CTLS: CVM List - Discover U.S. Debit, AID A0000001524010 (D-PAS EMV, Onlin	ie) 200
	4.12.5 4.12.6	CTLS: Application Tag data, AID A0000001524010 (D-PAS EMV, Online)	285
			285
4.13	4.12.6 4.12.7	CTLS: Application Tag data, AID A0000001524010 (D-PAS EMV, Online)	285 287
4.13	4.12.6 4.12.7	CTLS: Application Tag data, AID A0000001524010 (D-PAS EMV, Online) CTLS: Application Tag data, AID A0000001523010 (D-PAS EMV, Online)	285 287 290
4.13	4.12.6 4.12.7 Test C a	CTLS: Application Tag data, AID A0000001524010 (D-PAS EMV, Online) CTLS: Application Tag data, AID A0000001523010 (D-PAS EMV, Online) ard 13 - Discover, CO, 1-AID (U.S. Debit), English, USA, USD	285 287 290 290
4.13 4.14	4.12.6 4.12.7 Test Ca 4.13.1 4.13.2	CTLS: Application Tag data, AID A0000001524010 (D-PAS EMV, Online) CTLS: Application Tag data, AID A0000001523010 (D-PAS EMV, Online) ard 13 - Discover, CO, 1-AID (U.S. Debit), English, USA, USD Contact: CVM List - Discover U.S. Debit, AID A0000001524010	285 287 290 290 290
	4.12.6 4.12.7 Test Ca 4.13.1 4.13.2	CTLS: Application Tag data, AID A0000001524010 (D-PAS EMV, Online) CTLS: Application Tag data, AID A0000001523010 (D-PAS EMV, Online) ard 13 - Discover, CO, 1-AID (U.S. Debit), English, USA, USD Contact: CVM List - Discover U.S. Debit, AID A0000001524010 Contact: Application Tag data, AID A0000001524010	285 287 290 290 290 291
	4.12.6 4.12.7 Test Ca 4.13.1 4.13.2 Test Ca	CTLS: Application Tag data, AID A0000001524010 (D-PAS EMV, Online) CTLS: Application Tag data, AID A0000001523010 (D-PAS EMV, Online) ard 13 - Discover, CO, 1-AID (U.S. Debit), English, USA, USD Contact: CVM List - Discover U.S. Debit, AID A0000001524010 Contact: Application Tag data, AID A0000001524010 ard 14 - DNA, CO, 1 AID (DNA), English, USA, USD	285 297 290 290 290 291 291

	4.15.1	Contact: CVM List - Interac, AID A0000002771010	
	4.15.2	Contact: Application Tag data, AID A0000002771010	
	4.15.3	CTLS: Application Tag data, AID A0000002771010 (Flash)	
4.16	Test Ca	ard 16 - Mastercard, CO, 3-AID, English, USA, USD	297
	4.16.1	Contact: CVM List - Mastercard, AID A00000004101001	
	4.16.2	Contact: Application Tag data, AID A00000004101001	
	4.16.3	Contact: CVM List - Mastercard, AID A00000004101002	
	4.16.4	Contact: Application Tag data, AID A00000004101002	
	4.16.5	Contact: CVM List - Mastercard, AID A000000042203	
	4.16.6	Contact: Application Tag data, AID A000000042203	
Chapter	5 - AS	CII Character Conversion Chart	308

Chapter 1 - Overview

1.1 USA Debit EMV Test Plan - Purpose

This test plan is designed for clients who wish to utilize the 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	I Scheme AID					
Discover	U.S. Common Debit	A0000001524010				
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.

Scenario One	AID	-	IIN Tag 42 le debit funding est Cards 01, 05			
Global Debit AID	TC 01 - A000000031010 TC 05 - A000000041010 TC 12 - A0000000153010	US	TC 01 - 476173 TC 05 - 541333 TC 12 - 651000	 Merchant may decide which AID to select based on their preferred routing choice: Global AID – may only be routed to Visa, Mastercard or Discover (any supported CVM may be 		
U.S. Common Debit AID	TC 01 - A000000980840 TC 05 - A000000042203 TC 12 - A0000000154010	US	TC 01 - 476173 TC 05 - 541333 TC 12 - 651000	 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) 		
Two	Combo card accessing a credit account and a single funding debit account: 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. Commol	n 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	
U.S. Common Debit AID	TC 03 - A0000000980840 TC 09 - A000000042203	US	TC 03 - 476173 TC 09 - 679999	 routed to Visa, Mastercard or Discover (any supported CVM may be used) 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) 	
Three	Card accesses two		accounts – Acco it Test Card 11	ounts have different IINs:	
Global Debit AID 1	TC 11 - A0000000043060	US	5413333	Merchant should choose either the 2 Global AIDs or the 2	
U.S. Common Debit AID 1	TC 11 - A000000004220301	US	541333	 U.S. Common Debit AIDs based on their preferred routing choice: Global AIDs – may only be routed to 	
Global Debit AID 2	TC 11 - A0000000041010	US	679999	 Visa, Mastercard or Discover (any supported CVM may be used) U.S. Common Debit AIDs may be routed to any of the global networks or any of the supported debit 	
U.S. Common Debit AID 2	TC 11 - A0000000004220302	US	679999	networks (any supported CVM may be used)	

U.S. Common Debit Scenarios

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 (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 (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 (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 (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"

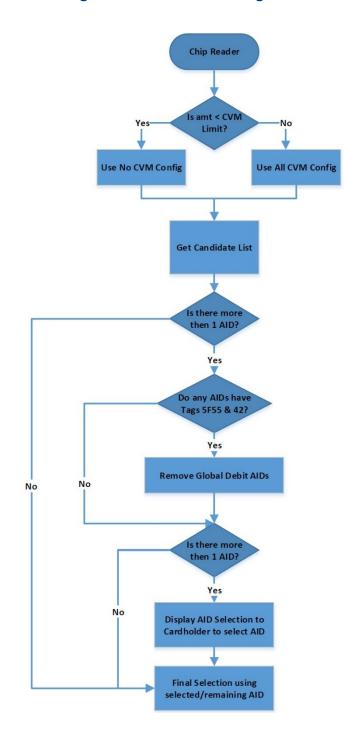
Set the Processing Code:

- 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

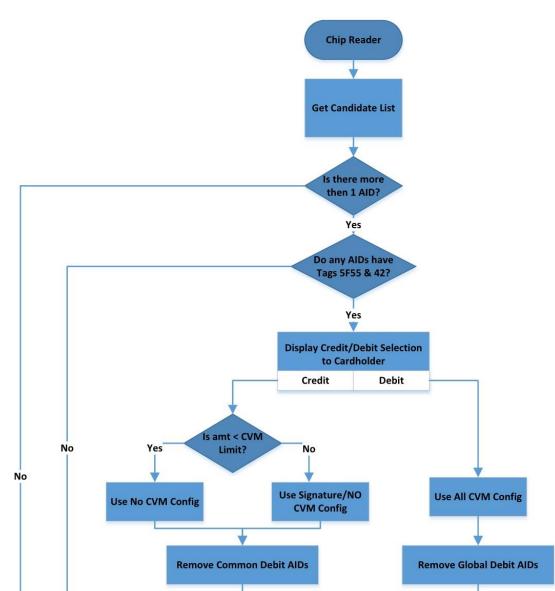
The kernel can now select the AID on the chip and Final Selection ends.

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.

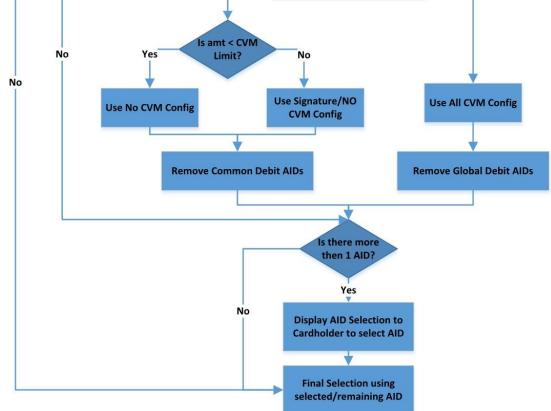




2.6 U.S. Debit Processing Flowchart PIN Preferring Merchants



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



Chapter 3 - USA Debit EMV Test Plan

3.1 Test Case Outline

To perform the tests defined in this section you will require the USA Debit EMV Test Card Set provided by B2. The card numbers ('TCxx') used throughout will be consistent with that set. See <u>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
- Credit/Debit Prompting, Merchant Controlled Candidate List
- Credit/Debit Prompting, Standard EMV Application Selection

3.3 USA Debit EMV Test Cases

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

Important Notes:

- As of Version 8.00 of this document, Test Card 15 v4.0 was replaced with v5.0 and Test Card 16 v5.0 was replaced with v6.0. There are significant changes to these two cards.
 <u>TC 16</u> test cases have NOT been updated to reflect the changes. When that occurs, this notification will be removed.
- 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.
- As of Version 6.0 of Test Card 15, this Interac Flash card has a BIN range of '001203'. These cards are supported by all Canadian processors but are not necessarily supported by all U.S. and International processors. Check with your acquirer account representative to determine if the Interac Flash BIN '001203' 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)
- Tyy is: The Test Number (resets to "01" for each card)

e.g.

PP.MCCL.C01-T01 – uses 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 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 USA Debit EMV Test Card Set

AIDs that should be loaded in the acceptance device when testing using the 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			
	476173100000084			
	A000000041010	A000000042203		
05	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	A000000041010	A000000043060	A000000042203	
	Credit	Debit	Debit	
09	Mastercard	Maestro	US Maestro	
	5413330089020060	6799998900000200051	6799998900000200051	
	A000000042203			
10	Debit			
10	US Maestro			
	5413330089099130			
	A0000000041010	A00000004220301	A000000043060	A00000004220302
11	Debit	Debit	Debit	Debit
11	Mastercard Debit	US Checking	Maestro	US Savings
	5413330089020060	5413330089020060	6799998900000200051	67999989000020005

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			
	A000006200620			
14	Debit			
	DNA			
	40000000000028			
	A000002771010	A000002771010		
15	Debit	Debit		
15	Interac	Interac Flash		
	0012020000001	0012020000001		
	A00000004101001	A00000004101002	A00000000042203	
16*	Credit	Debit	Debit	
10	Mastercard	Mastercard	US Maestro	
	5413330089020060	5413330089099130	5413330089099130	

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 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 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

B2》

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

B2》

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

B2》

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

B2》

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 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 '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 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. "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

B2》

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 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
- 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 not 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 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

3.3.9.15 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 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

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 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 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 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 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

PLEASE READ IMPORTANT NOTES AT THE BEGINING OF SECTION 3.3

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 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 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 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.

3.3.10 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 not 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 <u>not</u> 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 <u>not</u> 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 not 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 not 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
 - d. "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. "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.

3.3.10.50 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

PLEASE READ IMPORTANT NOTES AT THE BEGINING OF SECTION 3.3

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 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.

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

3.3.11.15 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

B2》

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 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 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 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.

3.3.11.36 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

PLEASE READ IMPORTANT NOTES AT THE BEGINING OF SECTION 3.3

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')
- 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 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 not 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 not 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'
- 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

3.3.12.35 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 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 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. "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.

3.3.12.44 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

PLEASE READ IMPORTANT NOTES AT THE BEGINING OF SECTION 3.3

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 - 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 card has a '001203' 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. ***

RECOMMENDATION

For those that are relatively new to EMV and seek assistance in understanding 'the basics'... Consider B2's online courses – eLearning and Virtual Training. Learn from the comfort and convenience of your office (or home-office), at your own pace.

Visit: <u>b2ps.com/b2-university</u>

VISA

The B2 USA Debit Test Card Set contains 16 cards with at least one card from each of the following card brands.

Interac

	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	12/2024	12/2024	12/2024
Service Code	201	201	201
Interface	Contact, Contactless, MSR Contact, MSR		Contact, MSR
CVM (Contact) Default Condition: <i>Terminal Supports CVM</i>	Intact)Online PIN (ATM)Online PIN (ATM)Online PIN (ATM)OrOnline PIN (MCash)Signature (MCash)Signature (MCash)Fail CVM Processing (MCash)Signature (MCash)Indition:Online PIN (CBack)Online PIN (CBack)Online PIN (CBack)SignatureSupports CVMSignatureOnline PINNo CVM requiredNoSee card definitionSee card definitionFailSee card definition		Online PIN (ATM) Online PIN (MCash) Signature (MCash) Fail CVM Processing (CBack) Signature No CVM required Fail CVM Processing 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	'en' - English
Card Version	v5.x	v5.x	v7.x

	Test Card 04	Test Card 05	Test Card 06
Brand	Brand Visa		Mastercard
Description (Card + types)	Interlink	Global / Common	Maestro Dual-Funding
AID list	A000000033010	A0000000041010 A0000000042203	A000000043060 D0561111 A000000043060 D05621222
PAN on plastic	4761 7310 0000 0084	5413 3300 8909 9130	67999 9890 0000 2010
Expiry Date	12/2024	12/2025	12/2025
Service Code 221		201	220
Interface	Contact, MSR	Contact, Contactless, MSR	Contact, MSR
CVM (Contact) Default Condition: <i>Terminal Supports CVM</i>	Online PIN No CVM required See card definition	Online PIN (ATM) Online PIN (CBack) Signature Online PIN No CVM required See card definition	Offline Plaintext PIN Online PIN (CBack) Fail CVM Processing <u>See card definition</u>
Approval Amount	\$10.00	\$20.00	\$20.00
Issuer Country Code	Issuer Country Code 840 - USA		528 - NLD
Application Currency Code 840 - USD		840 - USD	978 - EUR
Language 'en' - English		'en' - English	'en' - English
Card Version v5.x		v6.x	v5.x

	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	A0000000041010 A00000000043060	A0000000042203 D0561111 A0000000042203 D0562222	A0000000041010 A0000000043060 A0000000042203
PAN on plastic	5413 3300 8902 0060	5413 3300 8909 9007	5413 3300 8902 0060
Expiry Date	12/2025	12/2025	12/2025
Service Code	201	220	201
Interface	Contact, MSR Contact, MSR		Contact, MSR
CVM (Contact) Default Condition: <i>Terminal Supports CVM</i>	Offline Plaintext PIN Online PIN Signature No CVM required Fail CVM Processing See card definition	Online PIN (CBack) Online PIN No CVM required Fail CVM Processing See card definition	Offline Plaintext PIN Online PIN Signature No CVM required Fail CVM Processing 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	'en' - English	'en' - English	'en' - English
Card Version	v5.x	v5.x	v5.x

	Test Card 10	Test Card 11	Test Card 12
Brand	and 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 8902 0060	6011 9737 0000 0138
Expiry Date	12/2025	12/2025	05/2026
Service Code	220	201	201
Interface	Contact, MSR Contact, MSR		Contactless, Contact, MSR
CVM (Contact) Default Condition: <i>Terminal Supports CVM</i>	Online PIN (CBack) Online PIN No CVM required <u>See card definition</u>	Online PIN (CBack) Offline Plaintext PIN Online PIN Signature (paper) No CVM required See card definition	Online PIN No CVM required See card definition
Approval Amount	\$20.00	\$20.00	\$79.00
Issuer Country Code 840 - USA 840 - USA		840 - USA	
Application 840 - USD		840 - USD	840 - USD
Language	'en' - English	'en' - English	ʻenesfr' (English, Spanish, French)
Card Version	Card Version v6.x		v6.x

	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	A0000002771010
PAN on plastic	6011 9737 0000 0120	4000 0000 0000 0028	0012 0300 0000 0003
Expiry Date	05/2026	12/2025	12/2028
Service Code	201	201	220
Interface	Contact, MSR	Contact, MSR	Contactless, Contact, MSR
CVM (Contact) Default Condition: <i>Terminal Supports CVM</i>	Online PIN No CVM required See card definition	Online PIN (ATM) Online PIN (MCash) Online PIN No CVM required See card definition	Offline Enciphered PIN Offline Plaintext PIN Online PIN <u>See card definition</u>
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	v6.x	v6.x	v6.x

	Test Card 16
Brand	Mastercard
Description	Credit / Debit / U.S. Maestro
AID list	A000000004101001 A000000004101002 A0000000042203
PAN on plastic	5413 3300 8902 0060
Expiry Date	12/2025
Service Code	201
Interface	Contact, MSR
CVM (Contact) Default Condition: <i>Terminal Supports CVM</i>	Offline Plaintext PIN Online PIN Signature No CVM required Fail CVM Processing See card definition
Approval Amount	\$20.00
Issuer Country Code	840 - USA
Application Currency Code	840 - USD
Language	'en' - English
Card Version	v6.x

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	

4.1.2 Contact: Application Tag data, AID A000000031010

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	56 49 53 41 20 44 45 42 49 54 20 20 20 20 20 20 - 'VISA DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 41 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'
5F 24	Application Expiration Date	24 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 [VIS]	 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 via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset
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

	10
К7	≫

Tag	Element name	Data Card v5.x
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 0A
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 00 02 01 42 04
OL	List	1E 04 02 05 5E 00 42 00 1F 00
94	Application File Locator (AFL)	08 01 02 00
94 9F 07		FF 80
95 07	Application Usage Control	BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals valid BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number [VIS]	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
9F 12	Application Preferred Name	56 69 73 61 20 44 65 62 69 74 20 20
51 12	Application Freiened Name	20 20 20 20 - 'Visa Debit'
9F 13	Last Online Application Transaction	xx xx *
01 10	Counter (ATC) Register	
9F 17	Personal Identification Number (PIN)	03
•••••	Try Counter	
9F 24	Payment Account Reference (PAR)	56 30 30 31 30 30 31 33 30 31 36 31
		37 33 31 30 36 36 39 33 30 33 37 34
		38 39 33 30 33
9F 26	Application Cryptogram (AC)	C4 87 AB 1C 1A 67 97 B7
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]	
9F 56	Issuer Authentication Indicator [VSDC]	80
9F 57	Issuer Country Code [VSDC]	08 40 - USA
9F 5D	Available Offline Spending Amount	00 00 00 00 00 00
	[VSDC]	
9F 68	Card Additional Processes [qVSDC	10 00 10 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	
BF 5A	AIP/AFL Entries Template	
BF 5B	Application Internal Data Template	DF 01 02 00 00
·		* Tag value changes with card usage

* Tag value changes with card usage

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	Element name	Data Card v5.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 - 'US DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 41 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
55.04		20 20 - 'USA DEBIT/Test Card 01'
5F 24	Application Expiration Date	24 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 [VIS]	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 via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - Use for Visa NOT supported
		b7 - Is NOT Mobile handset
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	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
05		0A
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 00 02 01 02 05 42 00 1F 00 00 00 00 00
	List	
94	Application File Locator (AFL)	08 01 02 00

9F 07	Application Usage Control	AB 80 BYTE 1: b8 - Domestic cash trans. 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 - non-ATM terminals valid BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number [VIS]	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
9F 12	Application Preferred Name	55 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20 (US Dobiť)
9F 13	Last Online Application Transaction	20 20 20 20 - 'US Debit'
96 13	Last Online Application Transaction Counter (ATC) Register	
9F 17	Personal Identification Number (PIN)	03
01 17	Try Counter	
9F 24	Payment Account Reference (PAR)	56 30 30 31 30 30 31 33 30 31 36 31
0. 2.		37 33 31 30 36 36 39 33 30 33 37 34 38 39 33 30 33
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 05
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 1.5]	00 00 00 00 00 00
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	1
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

* Tag value changes with card usage

42	Element name	Data Card v5.x
76	Issuer Identification Number (IIN)	47 61 73
50	Application Label	56 49 53 41 20 44 45 42 49 54 20 20
		20 20 20 20 - 'VISA DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 41 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	24 12 31
5F 28	Issuer Country Code	08 40
5F 2D	Language Preference	65 6E
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VCPS]	00 00
02		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 via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported BYTE 2:
		b8 - Use for Visa NOT supported
		b7 - Is NOT Mobile handset
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
01 07		BYTE 1:
		b8 - Domestic cash trans. 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
		h2 ATMs NOT valid
		b2 - ATMs NOT valid
		b1 - non-ATM terminals NOT valid
		b1 - non-ATM terminals NOT valid BYTE 2:
9F 10	Issuer Application Data [VCPS 2.2]	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed
9F 10 9F 11	Issuer Application Data [VCPS 2.2] Issuer Code Table Index	 b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed
		b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20
9F 11 9F 12	Issuer Code Table Index Application Preferred Name	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20 20 20 - 'Visa Debit'
9F 11	Issuer Code Table Index	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20
9F 11 9F 12 9F 13	Issuer Code Table Index Application Preferred Name	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20 20 20 - 'Visa Debit'
9F 11 9F 12	Issuer Code Table Index Application Preferred Name Last Online Application Transaction	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20 20 20 - 'Visa Debit'
9F 11 9F 12 9F 13	Issuer Code Table Index Application Preferred Name Last Online Application Transaction Counter (ATC) Register	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 - 'Visa Debit' xx xx *
9F 11 9F 12 9F 13	Issuer Code Table Index Application Preferred Name Last Online Application Transaction Counter (ATC) Register Personal Identification Number (PIN)	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 - 'Visa Debit' xx xx * 03 56 30 30 31 30 30 31 33 30 31 36 31
9F 11 9F 12 9F 13 9F 17	Issuer Code Table Index Application Preferred Name Last Online Application Transaction Counter (ATC) Register Personal Identification Number (PIN) Try Counter	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 - 'Visa Debit' xx xx * 03 56 30 30 31 30 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 33 37 34
9F 11 9F 12 9F 13 9F 17 9F 24	Issuer Code Table IndexApplication Preferred NameLast Online Application Transaction Counter (ATC) RegisterPersonal Identification Number (PIN) Try CounterPayment Account Reference (PAR)	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 - 'Visa Debit' xx xx * 03 56 30 30 31 30 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 33 37 34 38 39 33 30 33
9F 11 9F 12 9F 13 9F 17 9F 24 9F 26	Issuer Code Table Index Application Preferred Name Last Online Application Transaction Counter (ATC) Register Personal Identification Number (PIN) Try Counter Payment Account Reference (PAR) Application Cryptogram (AC)	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 - 'Visa Debit' xx xx * 03 56 30 30 31 30 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 33 37 34 38 39 33 30 33 xx xx xx xx xx xx xx xx xx *
9F 11 9F 12 9F 13 9F 17 9F 24 9F 26 9F 27	Issuer Code Table IndexApplication Preferred NameLast Online Application Transaction Counter (ATC) RegisterPersonal Identification Number (PIN) Try CounterPayment Account Reference (PAR)Application Cryptogram (AC) Cryptogram Information Data (CID)	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 - 'Visa Debit' xx xx * 03 56 30 30 31 30 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 33 37 34 38 39 33 30 33 xx xx xx xx xx xx xx xx * 80
9F 11 9F 12 9F 13 9F 17 9F 24 9F 26 9F 27 9F 36	Issuer Code Table IndexApplication Preferred NameLast Online Application Transaction Counter (ATC) RegisterPersonal Identification Number (PIN) Try CounterPayment Account Reference (PAR)Application Cryptogram (AC) Cryptogram Information Data (CID) Application Transaction Counter (ATC)	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 - 'Visa Debit' xx xx * 03 56 30 30 31 30 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 33 37 34 38 39 33 30 33 xx xx xx xx xx xx xx xx * 80 xx xx *
9F 11 9F 12 9F 13 9F 17 9F 24 9F 26 9F 27	Issuer Code Table Index Application Preferred Name Last Online Application Transaction Counter (ATC) Register Personal Identification Number (PIN) Try Counter Payment Account Reference (PAR) Application Cryptogram (AC) Cryptogram Information Data (CID) Application Transaction Counter (ATC) Processing Options Data Object List	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 - 'Visa Debit' xx xx * 03 56 30 30 31 30 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 33 37 34 38 39 33 30 33 xx xx xx xx xx xx xx xx xx * 80 xx xx * 9F 66 04 9F 02 06 9F 03 06 9F 1A 02
9F 11 9F 12 9F 13 9F 17 9F 24 9F 26 9F 27 9F 36 9F 38	Issuer Code Table IndexApplication Preferred NameLast Online Application Transaction Counter (ATC) RegisterPersonal Identification Number (PIN) Try CounterPayment Account Reference (PAR)Application Cryptogram (AC) Cryptogram Information Data (CID) Application Transaction Counter (ATC)	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 - 'Visa Debit' xx xx * 03 56 30 30 31 30 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 33 37 34 38 39 33 30 33 xx xx xx xx xx xx xx xx * 80 xx xx * 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
9F 11 9F 12 9F 13 9F 17 9F 24 9F 26 9F 27 9F 36	Issuer Code Table Index Application Preferred Name Last Online Application Transaction Counter (ATC) Register Personal Identification Number (PIN) Try Counter Payment Account Reference (PAR) Application Cryptogram (AC) Cryptogram Information Data (CID) Application Transaction Counter (ATC) Processing Options Data Object List	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 - 'Visa Debit' xx xx * 03 56 30 30 31 30 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 33 37 34 38 39 33 30 33 xx xx xx xx xx xx xx xx * 80 xx xx * 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
9F 11 9F 12 9F 13 9F 17 9F 24 9F 26 9F 27 9F 36 9F 38	Issuer Code Table Index Application Preferred Name Last Online Application Transaction Counter (ATC) Register Personal Identification Number (PIN) Try Counter Payment Account Reference (PAR) Application Cryptogram (AC) Cryptogram Information Data (CID) Application Transaction Counter (ATC) Processing Options Data Object List (PDOL)	b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed xx xx 12 xx xx xx * 01 56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 - 'Visa Debit' xx xx * 03 56 30 30 31 30 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 33 37 34 38 39 33 30 33 xx xx xx xx xx xx xx xx * 80 xx xx * 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04

4.1.5 CTLS: Application Tag data, AID A000000031010, (qVSDC, online, ODA)

9F 52	Application Default Action [VSDC VIS 1.6]	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 [VSDC]	00 00 00 00 00 00
9F 68	Card Additional Processes [qVSDC VCPS 2.2]	10 00 10 00
9F 69	Card Authentication Related Data [qVSDC]	 01 00 00 00 00 00 00 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
9F 6C	Card Transaction Qualifiers [qVSDC VCPS 2.2]	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

* Tag value changes with card usage

4.1.6 CTLS: Application Tag data, AID A000000980840, (qVSDC, offline)

Tag	Element name	Data Card v4	.х
42	Issuer Identification Number (IIN)	47 61 73	
50	Application Label	56 49 53 41 20 44 45 42 49 54 20 2	0
		20 20 20 20 - 'VISA DEBIT'	
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 41 22 0	1
		19 55 94 58 00 00 1F	
5F 20	Cardholder Name	43 41 52 44 48 4F 4C 44 45 52 2F 5	6
		49 53 41 20 20 20 20 20 20 20 20 20 2	0
		20 20 - 'CARDHOLDER/VISA'	
5F 2D	Language Preference	65 6E	
5F 34	Application PAN Sequence Number	01	
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'	

82	Application Interchange Profile [VCPS]	00 00
52		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 via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - Use for Visa NOT supported
		b7 - Is NOT Mobile handset
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10
87	Application Priority Indicator	01
9F 10	Issuer Application Data [VSDC]	xx xx 12 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 *
	Counter (ATC) Register	
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 38	Processing Options Data Object List	9F 66 04 9F 02 06 9F 03 06 9F 1A 02
91.00	(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	
9F 5D	Available Offline Spending Amount [VSDC]	
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	10 00 10 00
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	DE 01 03 00 00
BF 5B	Application Internal Data Template	DF 01 02 00 00 * Tag value changes with card usage



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

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	Element name	Data Card v5.x
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 41 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 32 20 20
55.04	Application Expiration Data	20 - 'USA DEBIT/Test Card 02' 24 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	02 01
5F 34	Application PAN Sequence Number	-
5F 55 82	Issuer Country Code (alpha2 format)	55 53 - 'US' 18 00
	Application Interchange Profile [VIS]	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 via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset
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
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
8F	Certification Authority Public Key Index	92



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		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 05 01 B0 01 01 00					
9F 07	Application Usage Control	AB 80					
01 07	ripplication obage control	BYTE 1:					
		b8 - Domestic cash trans. 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 - non-ATM terminals valid					
		BYTE 2:					
		b8 - Domestic cashback allowed					
		b7 - International cashback NOT allowed					
9F 08	Application Version Number [VIS]	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					
9F 12	Application Preferred Name	55 53 20 44 65 62 69 74 - 'US Debit'					
9F 13	Last Online Application Transaction	xx xx *					
51 15							
	Counter (ATC) Register	03					
9F 17	Personal Identification Number (PIN)	03					
	Try Counter						
9F 1F	Track 1 Discretionary Data	20 20 20 20 20 20 20 20 20 20 20 20 20 2					
05.00		20 20 20 20 20 20 20 20 20 20 20 20 20 2					
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *					
9F 27	Cryptogram Information Data (CID)	80					
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	03	в8	82	2C	E3	88	09	BF	CE	61	BF	25
51 40	loo rubiic ivey certificate	91								E2		C7	13
		E2	A9	F3	вс	76	в4	5F	24	F1	40	C7	12
		96	F0	43	C3	3в	FB	9E	53	D3	4A	7C	96
		72	A9	A 3	67	88	C0	70	ЗF	1F	F9	23	D4
			FB										
			95										
			DA 4C										
			4C D3										
			A1										
			A8										
		EB	1в	F3	6E	24	42	4 E	BE	F0	E5	BF	F3
		4C	60	6E	E2	C1	78	F7	AC	96	A1	AB	1D
		5E	EC	E9	5E	0F	23	45	F9				
9F 47	ICC Public Key Exponent	03											
9F 49	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	- U	SD								
9F 52	Application Default Action [VSDC VIS	00	00	00	00	00	00						
	1.5]												
9F 53	Consecutive Transaction Limit	00											
	(International) [VSDC]												
9F 54	Cumulative Total Transaction Amount	00	00	00	00	00	00						
	Limit [VSDC]												
9F 57	Issuer Country Code [VSDC]	08	40	- U	SA								
9F 58	Consecutive Transaction Counter Limit	00											
	[VSDC]												
9F 59	Consecutive Transaction Counter Upper	00											
	Limit [VSDC]												
9F 5C	Cumulative Total Transaction Amount	00	00	00	00	00	00						
	Upper Limit [VSDC]												
9F 5E	Consecutive Transaction International	00											
0.02	Upper Limit [VSDC]												
9F 72	Consecutive Transaction Limit	00											
	(International-Country) [VSDC]												
BF 56	Counters Data Template	DF	11	01	01	DF	21	01	00	DF	31	01	00
BF 57	International Counters Data Template	DF	11	01	00	DF	21	01	00	DF	31	01	00
			51										
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
1	1	00	00	00									

* Tag value changes with card usage

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

Cardhol	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	Element name	Data Card v7.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 41 22 01
		14 83 53 94 00 00 OF
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
55.04		20 20 - 'USA DEBIT/Test Card 03' 24 12 31
5F 24	Application Expiration Date	08 40
5F 28	Issuer Country Code	
5F 2D	Language Preference	65 6E
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile [VIS]	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 via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - Use for Visa NOT supported
0.1		b7 - Is NOT Mobile handset
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	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
	1 (CDOL1)	
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 91
	2 (CDOL2)	03 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
	List	1E 04 00 05 5E 00 1F 00 00 00
	Liot	

Ter		Dete Card v7 v
Tag	Element name	Data Card v7.x 08 01 01 00 10 01 01
94	Application File Locator (AFL)	
9F 07	Application Usage Control	FF 00 BYTE 1:
		b8 - Domestic cash trans. valid
		bo - Domestic cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid BYTE 2:
		bille 2. b8 - Domestic cashback NOT allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number [VIS]	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 *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	56 69 73 61 20 43 72 65 64 69 74 20
51 12		20 20 20 20 - 'Visa Credit'
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	9F 06 07
	(PDOL)	
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]	
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 01
	Application Internal Data Templeta	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

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	Element name	Data Card v7.x
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	56 49 53 41 20 44 45 42 49 54 20 20
	••	20 20 20 20 - 'VISA DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 41 22 01
		14 83 53 94 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'
55.04	Application Expiration Data	20 20 - USA DEBIT/Test Card 03
5F 24	Application Expiration Date	08 40
5F 28	Issuer Country Code	65 6E
5F 2D	Language Preference	02 01
5F 30	Service Code	01
5F 34	Application PAN Sequence Number	
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US' 18 00
82	Application Interchange Profile [VIS]	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 via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported BYTE 2:
		b8 - Use for Visa NOT supported
		b7 - Is NOT Mobile handset
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	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
	2 (CDOL2)	05 5F 2A 02 9A 03 9C 01 9F 37 04 91
	. ,	OA
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 01 42 04
	List	1E 04 02 05 5E 00 42 00 1F 00 00 00
94	Application File Locator (AFL)	08 01 01 00 10 01 01 00

Tag	Element name	Data Card v7.x
9F 07	Application Usage Control	FF 80
		BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
0 - 00		b7 - International cashback NOT allowed
9F 08	Application Version Number [VIS]	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
9F 12	Application Preferred Name	56 69 73 61 20 44 65 62 69 74 20 20
		20 20 20 20 - 'Visa 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 *
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
	(PDOL)	
9F 44	Application Currency Exponent	02
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
05.54		1A 02 95 05 9C 01 9F 27 01
9F 51	Application Currency Code [VSDC]	08 40 - USD 00 00 00 00 00 00
9F 52	Application Default Action [VSDC VIS	
0= =0	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
	AID/AEL Entring Tomplate	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

4.3.5 Contact: CVM List - U.S. Common Debit, AID A0000000980840

Cardholder Verification Method List ('0201 0004 0205 4200 1F00 0000')			
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

4.3.6 Contact: Application Tag data, AID A000000980840

Tag	Element name	Data Card v7.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 - 'US DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 41 22 01
		14 83 53 94 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
55.04	Application Evaluation Data	20 20 - 'USA DEBIT/Test Card 03' 24 12 31
5F 24	Application Expiration Date	08 40
5F 28	Issuer Country Code	
5F 2D	Language Preference	65 6E
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55 82	Issuer Country Code (alpha2 format) Application Interchange Profile [VIS]	55 53 - 'US' 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 via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset
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

Tag	Element name	Data Card v7.x
9F 07	Application Usage Control	AB 80
9F 07	Application Usage Control	BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
05.00	Application Marcian Number (MC)	b7 - International cashback NOT allowed 00 96
9F 08	Application Version Number [VIS]	
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 *
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	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	9F 06 07
	(PDOL)	
9F 44	Application Currency Exponent	02
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
05.54		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
05.50	1.5]	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 00 DF 12 0B 20 00 00 00 00 00 00
	AID/AEL Entring Torralate	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
00		

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	CVM Verification Method Conditions If unsuccessful		If unsuccessful
1	Online PIN	Terminal supports CVM Type	Fail
2	No CVM required	Terminal supports CVM Type	Fail

4.4.2 Contact: Application Tag data, AID A000000033010

Tag	Element name	Data Card v5.x
50	Application Label	49 4E 54 45 52 4C 49 4E 4B -
		'INTERLINK'
57	Track 2 Equivalent Data	47 61 73 10 00 00 00 84 D2 41 22 21
5A	Application Primary Account Number	13 50 61 46 89 00 0F 47 61 73 10 00 00 00 84
ЪА	(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 34 20 20
55.04		20 20 - 'USA DEBIT/Test Card 04'
5F 24	Application Expiration Date	
5F 25	Application Effective Date	
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 [VIS]	10 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 via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - Use for Visa NOT supported
0.4		b7 - Is NOT Mobile handset A0 00 00 00 03 30 10
84	Dedicated File (DF) Name	
87	Application Priority Indicator	
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	8A 02 9F 02 06 9F 03 06 9F 1A 02 95
00		05 5F 2A 02 9A 03 9C 01 9F 37 04
0	2 (CDOL2)	00 00 00 00 00 00 00 00 02 03 1F 03
8E	Cardholder Verification Method (CVM) List	
8F	Certification Authority Public Key Index	92

Ter		Dete
Tag 90	Element name Issuer Public Key Certificate	Data Card v5.x 3C 96 F7 65 8F BC 29 A2 02 F1 91 46
90	Issuer Public Key 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
93	Signed Static Application Data	3D 1B F8 22 20 C2 58 AF A2 7D 72 4F
		OF E8 74 D7 73 89 E1 61 16 D7 AD 63 C0 57 C0 A7 EA 8B 55 06 45 61 65 E6
		DA 6E 3D 87 8F 82 A2 9C 2D 11 F7 D1
		35 51 C0 4F CB BE 60 77 8A 26 0B FF
		E5 69 17 1A OD OF 40 12 18 21 33 6C
		5B 29 F1 2E 67 4C C3 E8 BD 82 63 8F
		2F 75 3D 29 FF C6 1F 7F C9 71 6F 5B 82 A8 13 C8 75 BC 8E 0B 17 BF 13 06
		65 94 B6 A5 DC 54 1F 75 58 90 3F 54
		22 OF AB 90 3B 84 DC B7 DD 4E 44 3E
		05 6F A0 54 96 8E 0F 9F 9D A7 EC 92
		D4 B7 AC 52 A3 47 2E E7 6E 19 05 2A
		B9 30 C5 D4 64 3E 73 21 0B 7F E4 19
94	Application File Locator (AFL)	31 81 2B 1A 38 36 B6 5D 10 01 01 00 10 02 05 01 10 08 08 00
94		B0 01 01 00
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals valid BYTE 2:
		b 1 E 2. b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number [VIS]	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 OA 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
9F 1F	Track 1 Discretionary Data	31 33 35 30 36 30 30 31 34 36 30 30 30 <t< td=""></t<>
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
51 21		

Tag	Element name	Data Card v5.	x
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	99 78 79 D1 6F BD 5A 24 C6 08 B9 2	в
	·	F2 72 36 15 24 EB 92 9C 23 DD 60 F	
		65 81 96 DF AA 2B E1 0A 60 9A 72 2 42 0E A5 69 F7 EB 8D 47 64 BF E0 0	
		1F 62 8D 9B CA 3C 71 0E 11 C6 64 D	
		65 FB CF 1D 04 0B 17 42 12 46 C3 1	
		45 0D 39 31 0B D8 6C D5 C8 23 99 03	3
		A2 75 51 5C D4 6A B0 82 2E BD 47 1	
		02 30 D9 0D 87 60 A4 1C 94 DC EB A	
		15 1A 66 D7 82 27 AF F8 9E AB C0 3 B0 28 18 7F 43 9E 55 85 95 C8 F8 F	
		5E 07 1F 93 55 D7 50 3A 4D 8B 5A 70	
		B2 A0 3C FD E9 74 73 09 9A 8E 8A A	
		D2 37 BB E8 12 3E 4C 7C E9 71 A5 2	8
		F1 FE C3 FD DF B1 E0 6A	
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 1.5]	CO 00 00 00 00 00	
9F 53	Consecutive Transaction Limit (International) [VSDC]	00	
9F 54	Cumulative Total Transaction Amount Limit [VSDC]	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	
BF 56	Counters Data Template	DF 11 01 01 DF 21 01 00 DF 31 01 0	
BF 57	International Counters Data Template	DF 11 01 00 DF 21 01 00 DF 31 01 0 DF 51 01 00	
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00 DF 21 0 00 00 00 00 00 00 DF 31 06 00 00 00 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

Cardholder Verification Method List ('4201 0205 5E03 4203 1F00')						
CVM	Verification Method	Conditions	If unsuccessful			
1	Online PIN	Unattended Cash	Next CVM			
2	Online PIN	Purchase with Cashback	Fail			
3	Signature (paper)	Terminal supports CVM type	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	Element name	Data Card v6.x
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 51 22 01
		14 83 59 49 00 OF
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 30 35 20 20 20 20 - 'USA DEBIT/Test Card 05'
55.04	Application Expiration Data	25 12 31
5F 24	Application Expiration Date	xx xx xx *
5F 25	Application Effective Date	08 40 - USA
5F 28	Issuer Country Code	
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	
5F 34	Application PAN Sequence Number	11
5F 55 82	Issuer Country Code (alpha2 format) Application Interchange Profile	55 53 - 'US' 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 via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless 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 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
L		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 42 01 02 05 5E 03 42 03 1F 00

Tog	Element name	Data Card v6 v
Tag 94	Element name	Data Card v6.x
	Application File Locator (AFL)	10 01 03 00
94	Application File Locator (AFL)	FF C0
9F 07	Application Usage Control	BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals 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 10 xx
91 10	Advance]	xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 11 9F 12		4D 61 73 74 65 72 63 61 72 64 20 44
96 12	Application Preferred Name	65 62 69 74 - 'Mastercard Debit'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	03
51 17	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 23 9F 24		35 30 30 31 41 42 43 44 45 46 47 48
96 24	Payment Account Reference (PAR)	49 4A 4B 4C 4D 4E 4F 50 51 52 53 54
		55 56 57 58 59
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)	00 OF
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
0		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
C3	Card Issuer Action Cada (Contact)	
03	Card Issuer Action Code (Contact) -	
C4	Decline [M/Chip Advance] Card Issuer Action Code (Contact) -	06 50 00
64		
CE	Default [M/Chip Advance]	06 FB 00
C5	Card Issuer Action Code (Contact) -	
00	Online [M/Chip Advance]	03
C6	PIN Try Limit [M/Chip Advance]	42
C7	CDOL1 Related Data Length	74
00	[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

Tog	Floment nome	Det	~								0	ved v	^C V
Tag	Element name	Dat 00		00							Uč	ard \	/0.X
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]												
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	06	F8	00									
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	08	00	00									
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 00											40 00
D3	Additional Check Table [Mastercard]	00 00 FF						FF	FF	FF	FF	FF	FF
D5	Application Control [M/Chip Advance]	80											
D6	Default ARPC Response Code [M/Chip	00											
	Advance]												
D7	Application Control [M/Chip Advance]	00				E6	02						
D9	Application File Locator (Contactless)	08											
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]	08	40	- U	SD								
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	08 00 00											40 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	00	00	00	00	00						
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00											
DF 24	MTA Currency Code [M/Chip Advance]	08	40										
		00		00	00	00	00						
DF 25	MTA NoCVM (Contact) [M/Chip Advance]		50	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 (Contact) [M/Chip Advance]	00	00	00									
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00	00	00									

Tag	Element name	Data Card v6.x
DF 2A	Accumulator 2 CVR Dependency Data	
DF ZA	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
DF 2D		
DF 2C	(Contactless) [M/Chip Advance]	00 00 00
	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	
	(Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data	
55.00	(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	01
	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
	Advance]	
DF 40	Read Record Filter (Contactless)	10 01 01 00
	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
	Advance]	

4.5.3 Contact: CVM List - U.S. Maestro, AID A000000042203

Cardholder Verification Method List ('4205 4203 1F03 0000')						
CVM	Verification Method	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	Element name	Data Card v6.x
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 4D 41 45 53 54 52 4F 20 20
		20 20 20 20 - 'US MAESTRO'
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 51 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	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

Tag	Element name	Data Card v6.x
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 via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV Contactless 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 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 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
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals 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 10 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 73 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 24	Payment Account Reference (PAR)	35 30 30 31 41 42 43 44 45 46 47 48
		49 4A 4B 4C 4D 4E 4F 50 51 52 53 54
	Application Operators (AO)	55 56 57 58 59
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)	00 10
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	OB OA

Tag	Element name	Data Card v6.x
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 08 40 00 00 30 30 00
9F 6E	Third Party Data [Mastercard]	
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
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
СВ	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) -	06 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	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
DE	Application Control [M/Chip Advance]	FF FF FF FF FF FF 80 00 80 00 C6 02
D5	Application Control [M/Chip Advance]	00 10
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7		00 00 80 00 E6 02
D7 D9	Application Control [M/Chip Advance] Application File Locator (Contactless)	08 01 02 00 08 04 04 00
DB	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
	Security Limits Status (Contact) [M/Chip	00
DF 02	Advance]	00
DF 11	Accumulator 1 Control (Contact)	C1
DETT	[M/Chip Advance]	
DF 12		C1
	Accumulator 1 Control (Contactless) [M/Chip Advance]	
DF 14	Accumulator 2 Control (Contact)	00
UF 14	[M/Chip Advance]	
DF 15	Accumulator 2 Control (Contactless)	00
01 10	[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
	า สมาย [เพลงเยาบลเน]	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	C1
	Advance]	
	· · · · ·	

-		
Tag	Element name	Data Card v6.x
DF 1B	Counter 1 Control (Contactless) [M/Chip	C1
	Advance]	
DF 1D	Counter 2 Control (Contact) [M/Chip	00
	Advance]	
DF 1E	Counter 2 Control (Contactless) [M/Chip	00
	Advance]	
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
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]	00 00 00
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]	03
DF 30	Interface Enabling Switch [M/Chip Advance]	
DE 25		00
DF 35	Security Limits Status (Contactless)	
DF 37	[M/Chip Advance] Security Limits Status Common [M/Chip	00
DF 31	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
05 30	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	01
	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
	Advance]	
DF 40	Read Record Filter (Contactless)	10 01 01 00
	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
	Advance]	
L		* Tag value changes with card upage

4.5.5 CTLS: CVM List - Mastercard debit, AID A000000041010 (PayPass)

Cardholder Verification Method List ('0205 5E03 0203 1F03 0000')					
CVM	Verification Method	Conditions	If unsuccessful		
1	Online PIN	Purchase with Cashback	Fail		
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 CTLS: Application Tag data, AID A000000041010 (PayPass)

Tag	Element name	Data Card v6.x
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'
56	Track 1 Equivalent Data [Mastercard]	42 35 34 31 33 33 33 30 30 38 39 30
		39 39 31 33 30 5E 20 2F 5E 32 35 31
		32 32 30 31 31 34 38 33 35 39 34 39 30 30 30 30 30 30 30 30 30 30 30 30 30
		30 30 30 30 30
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 51 22 01
		14 83 59 49 00 OF
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 91 30
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 34	Application PAN Sequence Number	11
5F 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 b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV Contactless 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 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
8E	2 (CDOL2)	00 00 00 00 00 00 00 00 02 05 5E 03
0⊏	Cardholder Verification Method (CVM)	02 03 1F 03 00 00
94	Application File Locator (AFL)	08 01 03 00
94	Application Flie Locator (AFL)	

Tag	Element name	Data Card v6.x
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
0 - 00		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 10 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)	03
	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 24	Payment Account Reference (PAR)	35 30 30 31 41 42 43 44 45 46 47 48
		49 4A 4B 4C 4D 4E 4F 50 51 52 53 54
		55 56 57 58 59
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)	00 0B
9F 42	Application Currency Code	08 40 - USD
9F 4A	Static Data Authentication Tag List	82
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
05.00	Treak 1 Ditmon for CV(C2 (DC)/C2 Treak	7C 14 00 00 00 00 00 00
9F 62	Track 1 Bitmap for CVC3 (PCVC3 Track	
05.00	1) [Mastercard]	00 00 00 00 00
9F 63	Track 1 Bitmap for UN and ATC	00 00 00 00 00 00
05.04	(PUNATC Track 1) [Mastercard]	
9F 64	Track 1 Number of ATC Digits (NATC	00
	Track 1) [Mastercard]	
9F 65	Track 2 Bitmap for CVC3 (PCVC3 Track	00 00
	2) [Mastercard]	
9F 66	Track 2 Bitmap for UN and ATC	00 00
	(PUNATC Track 2) [Mastercard]	
9F 67	Track 2 Number of ATC Digits (NATC	02
	Track 2) [Mastercard]	
9F 6B	Track 2 Equivalent Data [Mastercard]	54 13 33 00 89 09 91 30 D2 51 22 01
05.00		14 83 59 49 00 00 OF
9F 6C	Application Version [Mastercard]	00 01
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 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
<u>C2</u>	Card Issuer Action Cade (Cantact)	
C3	Card Issuer Action Code (Contact) -	
	Decline [M/Chip Advance]	

B	2	>>
		<i>M</i> /

Tag	Element name	Da	ta								Ca	ard \	/6.x
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	- U	SA								
C9	Accumulator 1 Currency Code	08	40	- U	SD								
	[Mastercard]												
CA	Accumulator 1 Lower Limit [Mastercard]		00										
СВ	Accumulator 1 Upper Limit [Mastercard]		00		00	00	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		40								00		
	Table [Mastercard]	00	00	00	08	40	00	00	00	08	40	00	00
D3	Additional Check Table [Mastercard]	00	00	00	नन	नन	FF	नन	FF	FF	FF	नन	नन
05		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	Е6	02						
DF 02	Security Limits Status (Contact) [M/Chip	00											
	Advance]												

4.5.7 CTLS: CVM List - U.S. Maestro, AID A000000042203 (PayPass)

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 CTLS: Application Tag data, AID A000000042203 (PayPass)

Tag	Element name	Data	Card v5.x
42	Issuer Identification Number (IIN)	54 13 33	
50	Application Label	55 53 20 4D 41 45 53 54 52 4	4F 20 20
		20 20 20 20 - 'US MAESTRO'	
56	Track 1 Equivalent Data [Mastercard]	42 35 34 31 33 33 33 30 30 3	38 39 30
		39 39 31 33 30 5E 20 2F 5E 3	32 35 31
		32 32 30 31 31 34 38 33 35 3	39 34 39
		30 30 30 30 30 30 30 30 30 3	30 30 30
		30 30 30 30 30	
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 5	51 22 01
	·	14 83 59 49 00 OF	
5A	Application Primary Account Number	54 13 33 00 89 09 91 30	
	(PAN)		
5F 24	Application Expiration Date	25 12 31	
5F 25	Application Effective Date	xx xx xx *	

T =		Dete
Tag	Element name	Data Card v5.x
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	18 80
		BYTE 1: b7_Offling SDA NOT supported
		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 via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV Contactless 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 45 02 9F 4C 08 9F 34 05 9F 21 05 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 02 05 42 03
0L	List	1F 03 00 00 00 00
94	Application File Locator (AFL)	08 01 02 00 08 04 04 00
9F 07	Application Usage Control	FF CO
51 07	Application Usage Control	BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals 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 10 xx
	Advance]	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 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 24	Payment Account Reference (PAR)	35 30 30 31 41 42 43 44 45 46 47 48
		49 4A 4B 4C 4D 4E 4F 50 51 52 53 54
05.00	Application Crustagram (AC)	55 56 57 58 59 xx xx xx xx xx xx xx *
9F 26	Application Cryptogram (AC)	80
9F 27	Cryptogram Information Data (CID)	00 0D
9F 36	Application Transaction Counter (ATC)	
9F 42	Application Currency Code	08 40 - USD
9F 4A	Static Data Authentication Tag List	82

Tag	Element name	Dat	ta								Са	rd v	5.x
9F 4D	Transaction Log Entry	0B											
9F 4F	Transaction Log Format	9F	27	01	9F	02	06	5F	2A	02	9A	03	9F
	, , , , , , , , , , , , , , , , , , ,			9F	52	06	DF	3E	01	9F	21	03	9F
	Track 4 Ditrace for 01/02 (D01/02 Track	7C		00	00	00	00						
9F 62	Track 1 Bitmap for CVC3 (PCVC3 Track 1) [Mastercard]												
9F 63	Track 1 Bitmap for UN and ATC (PUNATC Track 1) [Mastercard]	00	00	00	00	00	00						
9F 64	Track 1 Number of ATC Digits (NATC Track 1) [Mastercard]	00											
9F 65	Track 2 Bitmap for CVC3 (PCVC3 Track 2) [Mastercard]	00	00										
9F 66	Track 2 Bitmap for UN and ATC (PUNATC Track 2) [Mastercard]	00	00										
9F 67	Track 2 Number of ATC Digits (NATC	02											
9F 6B	Track 2) [Mastercard] Track 2 Equivalent Data [Mastercard]			33 59					30	D2	51	22	01
9F 6C	Application Version [Mastercard]	00		59	49	00	00	UF					
9F 6E	Third Party Data [Mastercard]			00	00	30	30	00					
9F 7E	Application Life Cycle Data [Mastercard]	04	10	0в	14	00	01	00	00	50	17	79	00
••••	· · · · · · · · · · · · · · · · · · ·			00									
				00									
00	Cand laguer Action Cade (Cantest)		00	00	00	00	00	00	00	00	00	00	00
C3	Card Issuer Action Code (Contact) -	00	00	00									
C4	Decline [M/Chip Advance] Card Issuer Action Code (Contact) -	06	50	00									
04	Default [M/Chip Advance]	00	50	00									
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]			- U									
C9	Accumulator 1 Currency Code [Mastercard]	08	40	- U:	SD								
CA	Accumulator 1 Lower Limit [Mastercard]			00									
СВ	Accumulator 1 Upper Limit [Mastercard]			00	00	00	00						
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	06	58	00									
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	06	F8	00									
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	08	00	00									
D1	Accumulator 1 Currency Conversion			00									
	Table [Mastercard]	00		00									
D3	Additional Check Table [Mastercard]	FF	FF	00 FF	FF	FF							
D5	Application Control [M/Chip Advance]			80	00	C6	02						
D6	Default ARPC Response Code [M/Chip Advance]	00											
D7	Application Control [M/Chip Advance]	00	00	80	00	Е6	02						
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00											
			-		-								-

B2》

4.6 Test Card 06 - Maestro, CO, 1-AID (2-Funding), English, NLD, EUR

A contact-only, single-AID Maestro debit card with 2 funding accounts with an Issuer Country Code of 'NLD' and Currency Code of 'EUR'.

The recommended transaction amount to generate a host approval is \$20.00.

4.6.1 Contact: CVM List - Maestro Debit, AID A000000043060D0561111

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									

4.6.2 Contact: Application Tag data, AID A000000043060D0561111

Tag	Element name	Data Card v5.x
50	Application Label	4D 41 45 53 54 52 4F 31 20 20 20 20
50		20 20 20 20 - 'MAESTRO1'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 01 0D 25 12 22
	•	01 48 35 94 90 OF
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'
5F 24	Application Expiration Date	25 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
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 via
		External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
0.4		b8 - EMV mode NOT supported A0 00 00 00 04 30 60 D0 56 11 11
84	Dedicated File (DF) Name	
87	Application Priority Indicator	
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)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 41 03 02 03
	List	00 00 00 00
1		

Tag	Element name	Data Card v5.x
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals 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
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 14 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 *
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 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) -	7 F 50 00
04	Default [M/Chip Advance]	
C5	Card Issuer Action Code (Contact) -	3F FB 00
05	Online [M/Chip Advance]	
C6		09
C6 C7	PIN Try Limit [M/Chip Advance]	42
07	CDOL1 Related Data Length [Mastercard]	14
<u></u>	CRM Country Code [Mastercard]	05 28 - NLD
C8 C9		09 78 - EUR
69	Accumulator 1 Currency Code	09 /0 - EUN
CA	[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]	00 00 00
CD	Card Issuer Action Code (Contactless) -	
05	Default [M/Chip Advance]	00 00 00
CE	Card Issuer Action Code (Contactless) -	
	Online [M/Chip Advance]	

Tag	Element name	Da	ta_								Ca	rdə	/5.x
CF	Element name Card Issuer Action Code (Contactless) -		00	00							00	สน \	/J.X
	Decline [M/Chip Advance]												
D1	Accumulator 1 Currency Conversion								00				
	Table [Mastercard]		00	00	09	78	00	00	00	09	78	00	00
D 0	Additional Obsels Table [Mastersond]	00	00	00	चच	चच	चच	चच	FF	चच	55	चच	चच
D3	Additional Check Table [Mastercard]					FF		E.E.	E.E.	E.E.	E.E.	E.E.	E.E.
D5	Application Control [M/Chip Advance]					C6							
D5 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											
DF 02	Advance]												
DF 11	Accumulator 1 Control (Contact)	C1											
	[M/Chip Advance]												
DF 12	Accumulator 1 Control (Contactless)	00											
DF 12	[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										
DE 17	[Mastercard]										~~		
DF 17	Accumulator 2 Currency Conversion								00 00				
	Table [Mastercard]	00	00	00	09		00	00	00	09	99	00	00
DF 18	Accumulator 2 Lower Limit [Mastercard]		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											
51 15	Advance]												
DF 1D	Counter 2 Control (Contact) [M/Chip	00											
	Advance]												
DF 1E	Counter 2 Control (Contactless) [M/Chip	00											
	Advance]												
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]	09	78										
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]												
	Accumulator 2 CVR Dependency Data	00	00	00									
DF 2B	Accumulator 2 GVR Dependency Data												

Tag	Element name	Data Card v5.x
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]	

4.6.3 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

Tag	Element name	Data Card v5.x
50	Application Label	4D 41 45 53 54 52 4F 32 20 20 20 20
		20 20 20 20 - 'MAESTRO2'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 02 8D 25 12 22
		01 48 35 94 90 OF
5A	Application Primary Account Number	67 99 99 89 00 00 02 02 8F
	(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 36 20 20
		20 20 - 'USA DEBIT/Test Card 06'
5F 24	Application Expiration Date	25 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

_		
Tag	Element name	Data Card v5.x
82 84 87	Application Interchange Profile Dedicated File (DF) Name Application Priority Indicator	18 00BYTE 1:b7 - Offline SDA NOT supportedb6 - Offline DDA NOT supportedb5 - Cardholder verification supportedb4 - Terminal risk mgmt to be performedb3 - Issuer authentication NOT supported viaExternal Auth commandb2 - On device Cardholder verification NOTsupportedb1 - Combined DDA / GEN AC NOT supportedBYTE 2:b8 - EMV mode NOT supportedA0 00 00 00 04 30 60 D0 56 22 2202
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 41 03 02 03 00 00 00 00
94	Application File Locator (AFL)	08 01 01 00
94 9F 07	Application File Locator (AFL) Application Usage Control	08 01 01 00 FF C0
		 b8 - Domestic cash trans. 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 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	00 02 00 01 01 01
9F 0A	Application Selection Registered Proprietary Data	
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00 00 00 00 00 00
9F 0E 9F 0F	Issuer Action Code - Denial	B0 70 BC 98 00
9F 0F 9F 10	Issuer Action Code - Online Issuer Application Data [M/Chip	xx 14 xx
0E 11	Advance] Issuer Code Table Index	01
9F 11 9F 12	Application Preferred Name	4D 61 65 73 74 72 6F 32 20 20 20 20 20 20 20 20 - 'Maestro2'
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 *
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 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

CardyE

Tag	Element name	Da	ta								Ca	rd ۷	/5.x
9F 7E	Application Life Cycle Data [Mastercard]					00					17	-	00
						04							
						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) -	ЗF	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	- N	LD								
C9	Accumulator 1 Currency Code		78										
00	[Mastercard]			-	011								
CA	Accumulator 1 Lower Limit [Mastercard]	00	00	00	00	00	00						
CB						00							
	Accumulator 1 Upper Limit [Mastercard]		00		00	00	00						
CD	Card Issuer Action Code (Contactless) -	00	00	00									
0.5	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	09	78	00	00	00	09	78	00	00
50		00	~~	~~~									
D3	Additional Check Table [Mastercard]	00 हह				FF FF		F.F.	F.F.	F.F.	E.F.	E.F.	F.F.
DE	Application Control [M/Chip Advance]					C6							
D5	Application Control [M/Chip Advance]		10		00	00	02						
D6	Default ARPC Response Code [M/Chip	00	10										
D7	Advance]	00	00	00	00	00	00						
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			
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											
2	[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]					99							
		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	C1											
	Advance]												
DF 1B	Counter 1 Control (Contactless) [M/Chip	00											
	Advance]												
DF 1D	Counter 2 Control (Contact) [M/Chip	00											
טרוט	Advance]												

Tag

.....

Fag Element name Data Card v5.x DF 1E Counter 2 Control (Contactless) [M/Chip 00 </th <th>.</th> <th></th> <th></th>	.		
Advance] O DF 1F Counter 2 Lower Limit [Mastercard] 00 DF 21 Counter 2 Upper Limit [Mastercard] 00	Tag	Element name	Data Card v5.x
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 1E		00
DF 21 Counter 2 Upper Limit [Mastercard] 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00	DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 22 MTA CVM (Contact) [M/Chip Advance] 00			00
DF 23 MTA CVM (Contactiess) [M/Chip Advance] 00 </td <td></td> <td></td> <td>00 00 00 00 00 00</td>			00 00 00 00 00 00
Advance]DF 24MTA Currency Code [M/Chip Advance]0978- EURDF 25MTA NoCVM (Contact) [M/Chip Advance]0000000000DF 26MTA NoCVM (Contactless) [M/Chip Advance]000000000000DF 27Number Of Days Offline Limit [M/Chip Advance]000000000000DF 28Accumulator 1 CVR Dependency Data 		· · · · · · · ·	00 00 00 00 00 00
DF 24 MTA Currency Code [M/Chip Advance] 09 78 EUR DF 25 MTA NoCVM (Contact) [M/Chip Advance] 00	01 20	· · · ·	
DF 25 MTA NoCVM (Contact) [M/Chip Advance] 00 <td>DF 24</td> <td></td> <td>09 78 - FUR</td>	DF 24		09 78 - FUR
DF 26 MTA NoCVM (Contactless) [M/Chip 00 00 00 00 00 DF 27 Number Of Days Offline Limit [M/Chip 00 00 00 00 Advance] 00 00 00 00 00 00 DF 28 Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 00 DF 29 Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 00 DF 28 Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 00 DF 28 Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 00 DF 20 Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 00 DF 21 Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 00 00 DF 22 Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 <td>-</td> <td></td> <td></td>	-		
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 00 DF 28 Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] 00	DI 23		
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 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 (Contactless) [M/Chip Advance]00 00 00DF 20Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 21Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 22Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 22Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 25Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 35Security Limits Status (Contactless) (M/Chip Advance]00DF 36CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]00DF 34Read Record Filter (Contactless) (M/Chip Advance]00DF 34Read Record Filter (Contactless) (M/Chip Advance]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 28 Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 DF 28 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 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 DF 30 Interface Enabling Switch [M/Chip Advance] 01 DF 33 Security Limits Status (Contactless) [M/Chip Advance] 00 DF 34 Contactless) [M/Chip Advance] 01 DF 35 Security Limits Status Common [M/Chip Advance] 00 DF 36 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 01 DF 37 Read Record Filt			
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 (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 33Security Limits Status (Contactless) [M/Chip Advance]00DF 34Cvr Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 35C VR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 36CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]01DF 36Read Record Filter (Contactless) [M/Chip Advance]00DF 37Read Record Filter (Contactless) [M/Chip Advance]01	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 (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 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 36 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 00 DF 37 Security Limits Status Common [M/Chip Advance] 00 DF 37 Read Record Filter (Contact) [M/Chip Advance] 00 DF 37			
(Contact) [M/Chip Advance]DF 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 2CCounter 1 CVR Dependency Data (Contactless) [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 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]01DF 36CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]01DF 37Read Record Filter (Contactless) [M/Chip Advance]00DF 36Read Record Filter (Contactless) [M/Chip Advance]01	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 (Contact) [M/Chip Advance] 00 00 00 DF 2C Counter 1 CVR Dependency Data (Contact) [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 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 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 30 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 00 DF 37 Read Record Filter (Contact) [M/Chip Advance] 00 DF 37 Read Record Filter (Contactless) [M/Chip Advance] 01 DF 36 <td< td=""><td></td><td></td><td></td></td<>			
(Contactless) [M/Chip Advance]DF 2AAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00 00DF 2BAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 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 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status (Contactless) (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contact) [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]00DF 31Read Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless) [M/Chip Advance]00	DF 29		00 00 00
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 2ECounter 2 CVR Dependency Data (Contact) [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 30CVR Issuer Discretionary Data (Contact) [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 40Read Record Filter (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 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 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 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 31Cead Record Filter (Contact) [M/Chip Advance]01DF 40Read Record Filter (Contactless) [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 (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 Common [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless) [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 Common [M/Chip Advance]00DF 32CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 33CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 34CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 35Read Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless) [M/Chip Advance]00	DF 2B		00 00 00
DF 2CCounter 1 CVR Dependency Data (Contact) [M/Chip Advance]000000DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00000000DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]00000000DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00000000DF 30Interface Enabling Switch [M/Chip Advance]010101DF 35Security Limits Status (Contactless) [M/Chip Advance]000000DF 37Security Limits Status Common [M/Chip Advance]000000DF 37CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]0000DF 38Read Record Filter (Contact) [M/Chip Advance]0000DF 340Read Record Filter (Contactless) [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 Common [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 38CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 39CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 35Read Record Filter (Contact) [M/Chip Advance]00DF 340Read Record Filter (Contactless) (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 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 37Read Record Filter (Contact) [M/Chip Advance]00DF 340Read Record Filter (Contactless) [M/Chip Advance]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 37Security Limits Status Common [M/Chip Advance]00DF 36CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]00DF 340Read Record Filter (Contactless) [M/Chip Advance]00	DF 2D		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 30 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] 00 DF 31 Read Record Filter (Contact) [M/Chip Advance] 00 DF 35 Read Record Filter (Contact) [M/Chip Advance] 00 DF 40 Read Record Filter (Contactless) [M/Chip Advance] 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 30CVR 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) [M/Chip Advance]00	DF 2E	Counter 2 CVR Dependency Data	00 00 00
DF 30 Interface Enabling Switch [M/Chip 01 Advance] 00 DF 35 Security Limits Status (Contactless) 00 [M/Chip Advance] 00 DF 37 Security Limits Status Common [M/Chip 00 Advance] 00 DF 37 Security Limits Status Common [M/Chip 00 Advance] 00 DF 37 Security Limits Status Common [M/Chip 00 Advance] 00 DF 30 CVR Issuer Discretionary Data 00 (Contact) [M/Chip Advance] 00 DF 3D CVR Issuer Discretionary Data 00 (Contactless) [M/Chip Advance] 00 DF 3F Read Record Filter (Contact) [M/Chip 00 DF 3F Read Record Filter (Contactless) 00 DF 40 Read Record Filter (Contactless) 00 [M/Chip Advance] 00 00		(Contact) [M/Chip Advance]	
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 3CCVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 3DCVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 3FRead Record Filter (Contact) [M/Chip 	DF 2F	Counter 2 CVR Dependency Data	00 00 00
Advance]00DF 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) [M/Chip Advance]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) [M/Chip Advance]00	DF 30	Interface Enabling Switch [M/Chip	01
[M/Chip Advance]DF 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) [M/Chip Advance]00		Advance]	
[M/Chip Advance]DF 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) [M/Chip Advance]00	DF 35	Security Limits Status (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 [M/Chip Advance] 00 DF 40 Read Record Filter (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 [M/Chip Advance] 00	DF 37	Security Limits Status Common [M/Chip	00
OF 3D CVR Issuer Discretionary Data 00 DF 3D CVR Issuer Discretionary Data 00 (Contactless) [M/Chip Advance] 00 DF 3F Read Record Filter (Contact) [M/Chip Advance] 00 DF 40 Read Record Filter (Contactless) 00 [M/Chip Advance] 00 00		Advance]	
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 3C	CVR Issuer Discretionary Data	00
DF 3F Read Record Filter (Contact) [M/Chip Advance] DF 40 Read Record Filter (Contactless) [M/Chip Advance] 00		(Contact) [M/Chip Advance]	
DF 3F Read Record Filter (Contact) [M/Chip Advance] 00 DF 40 Read Record Filter (Contactless) [M/Chip Advance] 00	DF 3D	CVR Issuer Discretionary Data	00
Advance] 00 DF 40 Read Record Filter (Contactless) 00 [M/Chip Advance] 00			
DF 40 Read Record Filter (Contactless) 00 [M/Chip Advance]	DF 3F	Read Record Filter (Contact) [M/Chip	00
[M/Chip Advance]			
	DF 40		00
DF 41 DS Management Control [M/Chip 20			
	DF 41		20
Advance]		Advance]	

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

Cardhol	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 A0000000041010

Tag	Element name	Data Card v5.x
50	Application Label	4D 41 53 54 45 52 43 41 52 44 20 20
	••	20 20 20 20 - 'MASTERCARD'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 51 22 01
		14 83 59 49 00 OF
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 30 37 20 20
55.04		20 20 - 'USA DEBIT/Test Card 07'
5F 24	Application Expiration Date	25 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
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 via 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
8D	Card Risk Management Data Object List 2 (CDOL2)	91 OA 8A 02 95 05 9F 37 04 9F 4C 08

Index Letter informative Data Data </th <th>T</th> <th>Electronic</th> <th></th>	T	Electronic	
List SE 03 5F 03 00 00 94 Application File Locator (AFL) 08 01 01 00 9F 07 Application Usage Control FF 00 9F 07 Application Version Number 00 01 9F 08 Application Selection Registered 00 01 01 02 9F 01 Issuer Action Code - Default 80 50 BC 88 00 9F 05 Issuer Action Code - Online 80 70 BC 98 00 9F 10 Issuer Action Code - Online 80 70 BC 98 00 9F 11 Issuer Action Code - Online 80 70 BC 98 00 9F 12 Application Preferred Name 20 20 20 20 20 - 'Matercard' 9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 27 Cryptogram Information Data (CID) 80 20 20 20 20 - 'Matercard'	Tag	Element name	Data Card v5.x
Los Los 08 01 01 00 94 Application File Locator (AFL) 98 01 01 00 9F 07 Application Usage Control FF 00 EVTE 1: b8 00 BVTE 1: b8 DV BVTE 1: BVTE 2: BVTE 1: BVTE 2: AVTE 1: BVTE 1: <td>8E</td> <td>. ,</td> <td></td>	8E	. ,	
94 Application File Locator (AFL) 08 01 01 9F 07 Application Usage Control FF 00 9F 07 International goods valid b5 International goods valid b2 International services valid b3 International services valid b2 9F 08 00 01 01 02 9F 08 00 01 01 02 9F 08 00 01 01 02 9F 07 Issuer Action Code - Default 80 50 80 00 9F 07 Issuer Action Code - Online 80 70 80 90 97 9F 11 Issuer Action Code - Default 90 90 91 14 14 14 14 14 14 14 14 14 14 14 14 14 14 <td></td> <td></td> <td></td>			
3F OP Application Usage Control FF 00 9F 07 Application Usage Control FF 00 9F 07 Application Usage Control FF 00 9F 07 Application Usage Control BF 00 9F 07 Application Usage Control BF 00 9F 04 Domestic cash trans. valid b5 - International goods valid b2 - ATMs valid b1 - non-ATM terminals valid BVTE 2: 9F 06 Application Version Number 00 02 9F 07 Issuer Action Code - Default 80 50 BC 68 00 9F 07 Issuer Action Code - Default 80 50 BC 68 00 9F 07 Issuer Action Code - Online 80 70 BC 98 00 9F 07 Issuer Action Code - Online 80 70 BC 98 00 9F 07 Issuer Action Code - Online 80 70 BC 98 00 9F 11 Issuer Action Code - Online 80 71 Rest xx x x x x x x x x x x x x x x x x x	94	Application File Locator (AFL)	
BYTE 1: b8 - Domestic cash trans. valid b7 - Int' cash trans.colors valid b5 - International goods valid b5 - International goods valid b5 - International goods valid b5 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - Internation Lag Entry b7 - Internation Lag Entry b7 - Internation Cashback Contact) - beclant [M/Chip Advance] c6 - Card Issuer Action Code (Contact) - beclant [M/Chip Advance] c6 - Card Issuer Action Code (Contact) - beclant [M/Chip Advance] c6 - Car	94	Application File Locator (AFL)	08 01 01 00
BYTE 1: b8 - Domestic cash trans. valid b8 - Domestic goods valid b6 - Domestic goods valid b7 - Int' cash transactions valid b6 - Domestic goods valid b3 - International services valid b2 - ArTMs valid b1 - non-ATM terminals valid b1 - non-ATM terminals valid b2 - ArTMs valid b1 - non-ATM terminals valid b7 - International services valid b2 - ArTMs valid b7 - International cashback NOT allowed b7 - International cashback NOT allowed b7 - DI Issuer Action Code - Denial 00 00 00 00 00 9F 0D Issuer Action Code - Denial 00 00 00 00 00 9F 10 Issuer Action Code - Oenial 00 00 00 00 00 9F 11 Issuer Code Table Index 01 9F 12 Application Preferred Name 40 61 73 74 65 72 63 61 72 64 20 20 20 20 20 20 20 - 'Mastercard' 9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 17 Personal Identification Number (PIN) 77 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 24 Application Transaction Counter (ACC) xx xx x x x x x x x x x x x x x x x x 	9F 07	Application Usage Control	FF 00
b7 - Int'l cash transactions valid b6 - Domestic goods valid b3 - Domestic services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International Cashback b7 - Internatio			BYTE 1:
b6 Domestic goods valid b5 b5 International goods valid b3 b6 International gevices valid b3 b2 ATM Valid b1 b1 International services valid b1 b2 ATM Valid b1 b1 International services valid b1 b7 International services valid b1 b7 Application Version Number 00 9F 0A Application Registered Proprietary Data 00 00 00 9F 0D Issuer Action Code - Denial 00 00 00 00 9F 0F Issuer Action Code - Online 80 70 82 80 9F 11 Issuer Code Table Index 01 91 92 20			
b5<-International goods valid			
bd - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed 9F 08 Application Version Number 90 9F 0A Application Selection Registered proprietary Data 9F 0D Ssuer Action Code - Default 9D 1 9F 0F Issuer Action Code - Denial 00 00 9F 0F Issuer Action Code - Online 9D 1 Issuer Action Code - Online 9F 0F Issuer Action Code - Denial 9F 11 Issuer Code Table Index 9F 12 Application Data [M/Chip xx xx xx xx xx xx xx xx xx * 9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 15 Personal Identification Number (PIN) 10 7ty Counter 9 10 9F 26 Application Transaction Counter (ACC) xx xx xx xx xx xx xx * 9F 27 Cryptogram Information Data (CID) 80 9F 34 Application Transac			
b3 International services valid b2 b3 b2 ATMS valid BYTE 2: b6 Domestic cashback NOT allowed b7 9F 08 Application Version Number 00 02 9F 0A Application Selection Registered Proprietary Data 00 01 01 02 9F 00 Issuer Action Code - Default 80 50 BC 88 00 9F 01 Issuer Action Code - Denial 00 00 00 00 00 00 9F 02 Issuer Action Code - Online 80 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx 1 9F 11 Issuer Code Table Index 01 1 1 1 9F 12 Application Preferred Name 40 61 73 74 65 72 63 172 64 20 20 20 20 20 20 20 1 1 1 1 1 1 1 10 1			
b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed D7 - International cashback NOT allowed D7 - Issuer Action Code - Defial 9F 0E Issuer Action Code - Denial 00 00 00 00 9F 0I Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Action Code - Online B0 70 BC 98 00 9F 11 Issuer Code Table Index 01 XX			
b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - Internation Preferred Name b7 - Internation Preferred Name b7 - Internation Internation Preferred Name b7 - Internation Internation Data (CID) b7 - Internation Log Entry b7 - Internation Log Entry b7 - Internation Log Format b7 - Internation Log Format c1 - Decline [M/Chip Advance] c3 - Card Issuer Action Code (Contact) - Decline [M/Chip Advance] c4 - Card Issuer Action Code (Contact) - Decline [M/Chip Advance] c5 - Card Issuer Action Code (Contact) - Default [M/Chip Advance] c6 - PIN Try Limit [Mastercard] b7 - Card Issuer Action Code (Contact) - Default [M/Chip Advance] c6 - PIN Try Limit [M/Chip Advance] c6 - PIN Try Limit [M/Chip Advance] c6 - PIN Try Limit [M/Chip Advance] c6 - CDCL 1 Related Data Length [Mastercard] c6 - CRM Country Code [Mastercard] c7 - CDCL 1 Lower Limit [Mastercard] c7 - CDCL 1 Super Action Code [Contact] - Default [Mastercard] c7 - CDCL 1 Lower Limit [Mastercard] c7			
BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed 9F 08 Application Version Number 00 02 9F 0A Application Selection Registered Proprietary Data 00 01 01 02 9F 0D Issuer Action Code - Default 80 50 BC 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Application Data [Mi/Chip Advance] xx xx xx xx xx xx <td></td> <td></td> <td></td>			
b8 Domestic cashback NOT allowed 9F 08 Application Version Number 00 02 9F 0A Application Selection Registered Proprietary Data 00 01 01 02 9F 0D Issuer Action Code - Default B0 50 BC 88 00 9F 0E Issuer Action Code - Online B0 70 BC 98 00 9F 0F Issuer Application Data [M/Chip Advance] XX X XX X			
b7 - International cashback NOT allowed 9F 08 Application Version Number 00 02 9F 0A Application Selection Registered Proprietary Data 00 01 01 02 9F 00 Issuer Action Code - Default B0 50 BC 88 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 11 Issuer Code Table Index 01 xx			
9F 08 Application Version Number 00 02 9F 0A Application Selection Registered Proprietary Data 00 01 01 02 9F 0D Issuer Action Code - Default B0 50 BC 68 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 Action Code - Online B0 70 BC 98 00 9F 11 Issuer Code Table Index 01 *** *** *** *** *** *** *** *** *** *** *** 9F 12 Application Preferred Name 4D 61 73 74 65 72 63 61 72 64 20 20 20 20 20 -************************************			
9F 0A Proprietary Data 00 01 01 02 9F 0D 9F 0D 1ssuer Action Code - Default B0 50 BC 88 00 9F 0F 1ssuer Action Code - Default B0 70 BC 98 00 9F 0F 1ssuer Action Code - Online B0 70 BC 98 00 9F 10 1ssuer Action Code - Online B0 70 BC 98 00 9F 11 1ssuer Code Table Index 01 xx	9F 08	Application Version Number	
Proprietary Data 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 Action Code - Online B0 70 BC 98 00 9F 11 Issuer Action Code - Online MO 01 xx			
9F 0D Issuer Action Code - Default B0 50 BC 88 00 9F 0E Issuer Action Code - Online 00			
Of 00 Diversion Output Outpu			B0 50 BC 88 00
Of OF Issuer Action Code - Online B0 70 BC 98 00 9F OF Issuer Application Code - Online B0 70 BC 98 00 9F 0F Issuer Application Data [M/Chip Advance] xx 10 xx <			
Si of 10000 Other 10 xx			
Advance] xx <			
Invaries Invaries 9F 11 Issuer Code Table Index 01 9F 12 Application Preferred Name 4D 61 73 74 65 72 63 61 72 64 20 20 20 20 20 20 20 20 20 20 20 20 20	9F 10		
9F 12 Application Preferred Name 4D 61 73 74 65 72 64 20 20 9F 14 Counter 1 Lower Limit [Mastercard] 00 00 -'Mastercard' 00 9F 17 Personal Identification Number (PIN) 09 09 -'Mastercard' 00 9F 23 Counter 1 Upper Limit [Mastercard] 00 00 xx xx xx xx xx xx xx xx * 97 9F 26 Application Cryptogram (AC) xx xx * xx xx * 97 00 97 9F 36 Application Transaction Counter (ATC) xx xx * 97 97 97 197 97 197 197 20 197 21 03 97 10 97 20 197 21 03 97 7C 14 97 20 05 17 79 00 <td< td=""><td></td><td></td><td></td></td<>			
Of 12 Application 11 Clericol relation 20	9F 11	Issuer Code Table Index	
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	9F 12	Application Preferred Name	
9F 17 Personal Identification Number (PIN) 09 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 24 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 xx xx<			
97 17 Try Counter 1 Upper Limit [Mastercard] 00 97 23 Counter 1 Upper Limit [Mastercard] 00 97 24 Application Cryptogram (AC) xx xx<	9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx	9F 17	Personal Identification Number (PIN)	09
9F 26 Application Cryptogram (AC) xx		Try Counter	
9F 26 Application Cryptogram (AC) xx	9F 23	Counter 1 Upper Limit [Mastercard]	00
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 7 701 9F 02 06 5F 3E 01 9F 21 03 9F 7 7 7 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 50 17 79 00 A0 00 00 00 00 00 00 00 00 00 00 00 00 0	9F 26		xx xx xx xx xx xx xx xx *
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 00 00 00 00 00 00 00 00 00 0			80
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 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 9F 7E Application Life Cycle Data [Mastercard] 04 10 08 14 00 01 00 0			xx xx *
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 00 01 00 00 01 00 <td></td> <td></td> <td></td>			
OFF 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 9F 4F Transaction Log Format 9F 27 01 9F 22 06 5F 2A 02 9A 03 9F 9F 4F Transaction Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 <td></td> <td></td> <td></td>			
36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14 7C 14 7C 14 7F 79 00 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00		· · ·	
9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 50 17 79 00 Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00	96 46	Transaction Log Format	
9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00			
A0 00 00 00 04 10 10 00 <td< td=""><td>9F 7F</td><td>Application Life Cycle Data [Mastercard]</td><td></td></td<>	9F 7F	Application Life Cycle Data [Mastercard]	
00 00 <td< td=""><td></td><td></td><td></td></td<>			
C3Card Issuer Action Code (Contact) - Decline [M/Chip Advance]00 00 00C4Card Issuer Action Code (Contact) - Default [M/Chip Advance]06 00 00C5Card Issuer Action Code (Contact) - Online [M/Chip Advance]06 00 00C6PIN Try Limit [M/Chip Advance]09C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]08 26 - GBRC9Accumulator 1 Currency Code [Mastercard]08 26 - GBPCAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00			
Decline [M/Chip Advance]C4Card Issuer Action Code (Contact) - Default [M/Chip Advance]06 00 00C5Card Issuer Action Code (Contact) - Online [M/Chip Advance]06 00 00C6PIN Try Limit [M/Chip Advance]09C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]08 26 - GBRC9Accumulator 1 Currency Code [Mastercard]08 26 - GBPCAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00			
Decline [M/Chip Advance]C4Card Issuer Action Code (Contact) - Default [M/Chip Advance]06 00 00C5Card Issuer Action Code (Contact) - Online [M/Chip Advance]06 00 00C6PIN Try Limit [M/Chip Advance]09C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]08 26 - GBRC9Accumulator 1 Currency Code [Mastercard]08 26 - GBPCAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00	C3	Card Issuer Action Code (Contact) -	00 00 00
C4Card Issuer Action Code (Contact) - Default [M/Chip Advance]06 00 00C5Card Issuer Action Code (Contact) - Online [M/Chip Advance]06 00 00C6PIN Try Limit [M/Chip Advance]09C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]08 26 - GBRC9Accumulator 1 Currency Code [Mastercard]08 26 - GBPCAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00			
Default [M/Chip Advance] 06 00 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 06 00 00 C6 PIN Try Limit [M/Chip Advance] 09 C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 26 - GBR C9 Accumulator 1 Currency Code [Mastercard] 08 26 - GBP CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00	C4		06 00 00
C5Card Issuer Action Code (Contact) - Online [M/Chip Advance]06 00 00C6PIN Try Limit [M/Chip Advance]09C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]08 26 - GBRC9Accumulator 1 Currency Code [Mastercard]08 26 - GBPCAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00			
Online [M/Chip Advance]09C6PIN Try Limit [M/Chip Advance]09C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]08 26 - GBRC9Accumulator 1 Currency Code [Mastercard]08 26 - GBPCAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00	C5		06 00 00
C6PIN Try Limit [M/Chip Advance]09C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]08 26 - GBRC9Accumulator 1 Currency Code [Mastercard]08 26 - GBPCAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00			
C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 26 - GBR C9 Accumulator 1 Currency Code [Mastercard] 08 26 - GBP CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00	<u>C6</u>		09
[Mastercard] 08 26 - GBR C8 CRM Country Code [Mastercard] 08 26 - GBR C9 Accumulator 1 Currency Code 08 26 - GBP [Mastercard] 00 00 00 00 00 00			
C8 CRM Country Code [Mastercard] 08 26 - GBR C9 Accumulator 1 Currency Code [Mastercard] 08 26 - GBP CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00	07		74
C9 Accumulator 1 Currency Code 08 26 - GBP [Mastercard] 00 00 00 00 00 00	00		
[Mastercard] Image: CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00			
CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00	C9		08 26 - GBP
CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00			
	CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00

Tag CD CE	Element name Card Issuer Action Code (Contactless) -	Da 00									Ca	ard v	'5 <u>.X</u>
		0.0	<u> </u>	<u>^</u>									
CE	Default [M/Chip Advance]												
1	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	08	26	00	00	00	08	26	00	00	00	08	26
	Table [Mastercard]	00 00	00	00	80	26	00	00	00	08	26	00	00
D3	Additional Check Table [Mastercard]	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
D5	Application Control [M/Chip Advance]			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 Table [Mastercard]					00 99						09 00	99 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 (Contactless) [M/Chip Advance]					00							
DF 24	MTA Currency Code [M/Chip Advance]	08	26										
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 (Contact) [M/Chip Advance]	00	00	00									
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00	00	00									

Tag	Element name	Data Card v5.x
DF 2A	Accumulator 2 CVR Dependency Data	
DF ZA	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
DF 2D		
DF 2C	(Contactless) [M/Chip Advance]	00 00 00
DF 20	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	
	(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]	

4.7.3 Contact: CVM List - Maestro debit, AID A000000043060

Cardholder Verification Method List ('4103 4203 0000')							
CVM	Verification Method	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				

4.7.4 Contact: Application Tag data, AID A000000043060

Tag	Element name	Data Card v5.x
50	Application Label	4D 41 45 53 54 52 4F 20 20 20 20 20
		20 20 20 20 - 'MAESTRO'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 00 05 1D 25 12
		22 01 48 35 94 90 OF
5A	Application Primary Account Number	67 99 99 89 00 00 02 00 05 1F
	(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	25 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 20
5F 34	Application PAN Sequence Number	12

Tea		Dete
Tag	Element name	Data Card v5.x 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 via
		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 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	00 00 00 00
94	Application File Locator (AFL)	08 01 02 00
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals 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
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 14 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
05.4.4		20 20 20 - 'Maestro'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	09
0E 22	Try Counter	00
9F 23	Counter 1 Upper Limit [Mastercard]	xx xx xx xx xx xx xx *
9F 26 9F 27	Application Cryptogram (AC) Cryptogram Information Data (CID)	80
9F 27 9F 36		xx xx *
35.00	Application Transaction Counter (ATC)	
	Application Currency Code	
9F 42	Application Currency Code	08 26 - GBP
9F 42 9F 4D	Transaction Log Entry	0B 0A
9F 42		

Tag	Element name	Da	ta								Са	rd ۱	/5.x
9F 7E	Application Life Cycle Data [Mastercard]					00							
						04							
						00 00							
C3	Card laguer Action Cade (Cantact)		00		00	00	00	00	00	00	00	00	00
03	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00	00	00									
C4	Card Issuer Action Code (Contact) -	7F	50	00									
04	Default [M/Chip Advance]												
C5	Card Issuer Action Code (Contact) -	ЗF	FB	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]	08	26	- G	BR								
C9	Accumulator 1 Currency Code	08	26	- G	ΒP								
	[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	00	08	26	00	00	00	08	26	00	00
D3	Additional Check Table [Mastercard]		00	00	FF	FF	FF	FF	FF	FF	FF	FF	FF
00						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			
DF 02	Security Limits Status (Contact) [M/Chip	00											
	Advance]	~ 1											
DF 11	Accumulator 1 Control (Contact)	C1											
DE 40	[M/Chip Advance]	00											
DF 12	Accumulator 1 Control (Contactless)	00											
DF 14	[M/Chip Advance] Accumulator 2 Control (Contact)	00											
DF 14	[M/Chip Advance]	00											
DF 15	Accumulator 2 Control (Contactless)	00											
0115	[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	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]	00											
DF 1B	Counter 1 Control (Contactless) [M/Chip	00											
	Advance]	00											
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]												
L	הטימוונכן												

B2 》

Tag	Element name	Data Card v5.x
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
DF 23	Advance]	
DF 24	MTA Currency Code [M/Chip Advance]	08 26 - GBP
DF 24		00 00 00 00 00 00
DF 25	MTA NoCVM (Contact) [M/Chip 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]	

4.8 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

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	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 43 48 45 43 4B 49 4E 47 20
		20 20 20 20 - 'US CHECKING'
57	Track 2 Equivalent Data	54 13 33 00 89 09 90 07 D2 51 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
55.04		20 20 - 'USA DEBIT/Test Card 08' 25 12 31
5F 24	Application Expiration Date	
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'
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 via 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 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 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 02 05 42 03 1F 03 00 00
94	Application File Locator (AFL)	08 01 01 00

Tag	Element name	Data Card v5.x
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals 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 10 xx
51 10	Advancel	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
		55 53 20 43 68 65 63 6B 69 6E 67 20
9F 12	Application Preferred Name	20 20 20 20 - 'US Checking'
	Counter 1 Lower Limit [Mastersord]	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 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
		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 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card laguer Action Code (Contact)	00 00 00
03	Card Issuer Action Code (Contact) -	
04	Decline [M/Chip Advance]	06 00 00
C4	Card Issuer Action Code (Contact) -	
<u> </u>	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]	
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
01	Online [M/Chip Advance]	
CF	Card Issuer Action Code (Contactless) -	00 00 00
	Decline [M/Chip Advance]	

B2 》

		_											
Tag	Element name	Da										rd ۱	
D1	Accumulator 1 Currency Conversion									00			
	Table [Mastercard]		00	00	08	40	00	00	00	08	40	00	00
D 0		00	00	00	-	चच	चच	चच	चच	FF	-	T	चच
D3	Additional Check Table [Mastercard]					FF		<u> </u>	<u> </u>	E E	<u> </u>	<u> </u>	E E
D5	Application Control [M/Chip Advance]					C6							
D5 D6	Default ARPC Response Code [M/Chip		10				02						
00		00	10										
D7	Advance]	00	00	00	00	00	00						
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			
DF 02	Security Limits Status (Contact) [M/Chip	00											
	Advance]	~ 1											
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									00			
	Table [Mastercard]		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	00											
	Advance]												
DF 1D	Counter 2 Control (Contact) [M/Chip	00											
	Advance]												
DF 1E	Counter 2 Control (Contactless) [M/Chip	00											
	Advance]												
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										
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									
2. 21	(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									
51 20	(Contact) [M/Chip Advance]												
		I											

Tag	Element name	Data Card v5.x
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

4.8.3 Contact: CVM List - Mastercard U.S. Savings, AID A000000042203D0562222

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	3 No CVM required Terminal supports CVM type Fail		Fail		
4	Fail CVM Processing	Always	Fail		

4.8.4 Contact: Application Tag data, AID A000000042203D0562222

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 53 41 56 49 4E 47 53 20 20 20 20 20 20 - 'US SAVINGS'
57	Track 2 Equivalent Data	54 13 33 00 89 09 90 15 D2 51 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 20 20 - 'USA DEBIT/Test Card 08'
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 20
5F 34	Application PAN Sequence Number	32
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'

Ter		Data
Tag	Element name	Data Card v5.x
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 via
		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 D0 56 22 22
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 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 1F 03 00 00
	List	
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 trans. 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 - non-ATM terminals 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 10 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 20 20
	1,	20 20 20 20 - 'US Savings'
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 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
	Č	36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14

Tag	Element name	Data Card v5.x
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00
		A0 00 00 00 04 22 03 00 00 00 00 00
		00 00 00 00 00 80 00 88 01 06 A5 5A
C3	Card Issuer Action Code (Contact) -	00 00 00 00 00 00 00 00 00 00 00 00 00
63	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
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 - 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
D2	Additional Charle Table [Mastereard]	00 00 00 00 FF FF FF FF FF FF FF FF FF
D3	Additional Check Table [Mastercard]	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 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
DE 45	[M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless)	00
	[M/Chip Advance]	09 99
DF 16	Accumulator 2 Currency Code	
DF 17	[Mastercard] 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
	า อมาย [เพเอรเยเบอเน]	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	C1
	Advance]	
DF 1B	Counter 1 Control (Contactless) [M/Chip	00
	Advance]	
DF 1D	Counter 2 Control (Contact) [M/Chip	00
	Advance]	

Ter		Dete Conduct v
Tag	Element name	Data Card v5.x
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
2. 20	Advance]	
DF 24	MTA Currency Code [M/Chip Advance]	08 40
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
01 211	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
0, 20	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
0, 20	(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]	
L		1

4.9 Test Card 09 - Mastercard, CO, 3-AID (Credit+Maestro x2), 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: CVM List - Mastercard credit, AID A000000041010

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	Element name	Data Card v5.x
50	Application Label	4D 41 53 54 45 52 43 41 52 44 20 20
		20 20 20 20 - 'MASTERCARD'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 51 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 39 20 20
		20 20 - 'USA DEBIT/Test Card 09'
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	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 via
		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
	Cord Dick Management Data Object List	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8D	Card Risk Management Data Object List	51 UN ON UZ 55 US 51 57 U4 91 4C U8
	2 (CDOL2)	00 00 00 00 00 00 00 00 41 03 42 03
8E	Cardholder Verification Method (CVM)	5E 03 1F 00 00 00 00 00 00 41 03 42 03
	List	JE 03 IE 00 00 00

Tag	Element name	Data Card v5.x
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
51 07	Application Usage Control	BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals 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 14 xx
0. 10	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
01 12		20 20 20 20 - 'Mastercard'
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 *
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 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 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00 00
00	Card Jacuar Action Cade (Cantact)	
C3	Card Issuer Action Code (Contact) -	
<u> </u>	Decline [M/Chip Advance]	1F 50 00
C4	Card Issuer Action Code (Contact) -	11 50 00
05	Default [M/Chip Advance]	3F FB 00
C5	Card Issuer Action Code (Contact) -	
00	Online [M/Chip Advance]	09
C6	PIN Try Limit [M/Chip Advance]	
C7	CDOL1 Related Data Length	42
00	[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) -	00 00 00
	Default [M/Chip Advance]	
CE	Card Issuer Action Code (Contactless) -	00 00 00
	Online [M/Chip Advance]	

Tag		Da	ta								Ca	rd	15 x-
Tag CF	Element name Card Issuer Action Code (Contactless) -	Da 00		00							00		/5.x
	Decline [M/Chip Advance]												
D1	Accumulator 1 Currency Conversion						08						
	Table [Mastercard]		00	00	80	40	00	00	00	08	40	00	00
D 2	Additional Charle Table [Mastersard]	00	00	00	FF	FF	FF	FF	FF	FF	FF	FF	FF
D3	Additional Check Table [Mastercard]				FF			<u> </u>	<u> </u>	<u> </u>	F F	F F	F F
D5	Application Control [M/Chip Advance]				00								
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						
	Table [Mastercard]		00	00	09	99	00	00	00	09	99	00	00
	Accumulator O Lower Limit [Mastereord]	00	00	00	00	00	00						
DF 18	Accumulator 2 Lower Limit [Mastercard]				00								
DF 19 DF 1A	Accumulator 2 Upper Limit [Mastercard]	00 C1	00	00	00	00	00						
DETA	Counter 1 Control (Contact) [M/Chip Advance]	CI											
DF 1B	Counter 1 Control (Contactless) [M/Chip	00											
	Advance]	00											
DF 1D	Counter 2 Control (Contact) [M/Chip	00											
	Advance]												
DF 1E	Counter 2 Control (Contactless) [M/Chip	00											
	Advance]												
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										
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									
1	(Contactless) [M/Chip Advance]												

Tag	Element name	Data Card v5.x
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]	

4.9.3 Contact: CVM List - Maestro debit, AID A000000043060

Cardhol	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	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	67 99 99
50	Application Label	4D 41 45 53 54 52 4F 20 20 20 20 20 20
		20 20 20 20 - 'MAESTRO'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 00 05 1D 25 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 53 41 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	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 20
5F 34	Application PAN Sequence Number	12
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'

T		
Tag	Element name	Data Card v5.x
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 via
		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
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 02 03
-	List	00 00 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 CO
		BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denal	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 0F 9F 10	Issuer Application Data [M/Chip	xx 10 xx
31 10	Advance]	XX XX XX XX XX XX X
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 65 73 74 72 6F 20 20 20 20 20
31 12	Application relence Name	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 *
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
	ı	

9F 7E Application Life Cycle Data [Mastercard] Application Life Cycle Data [Mastercard] Application Code (Contact) - Decline [M/Chip Advance] 00	Tag	Element name	Da	ta								Са	rd ۱	′5.x
A0 00 00 00 4 30 60 00 00 00 00 00 00 00 00 00 00 00 00					0в	14	00	01	00	00	50	17	79	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] 1F 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 3F FB 00 C6 PIN Try Limit [M/Chip Advance] 03 C7 CDOL 1 Related Data Length 42 C8 CRM Country Code [Mastercard] 08 40 -USA C9 Accumulator 1 Currency Code 08 40 -USA CB CRM Country Code [Mastercard] 00 0														
Decline [M/Chip Advance] IF 50 00 C4 Card Issuer Action Code (Contact) - Online [M/Chip Advance] JF FB 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] JF FB 00 C6 PIN Try Limit [M/Chip Advance] 03 C7 CD0.1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Lower Limit [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] 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Currency Contectless) - Default [M/Chip Advance] 06 50 00 CE Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 00 00 00 00 84 00 00 00 84 00 00 00 00 84 00 00 00 84 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 00 FF FF FF FF FF FF FF FF FF F	00						00	00	00	00	00	00	00	00
C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] IF 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 3F FB 00 C6 PIN Try Limit [W/Chip Advance] 03 C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 C6 PIN Default [M/Chip Advance] 06 50 00 C6 Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 06 6F 80 00 00 00 C7 Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 08 40 00 00 08 40 00 00 00 08 40 00 00 00 00 00 00 00 00 00 00 00 00	C3		00	00	00									
Default [M/Chip Advance] 3F FB 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 03 C6 PIN Try Limit [M/Chip Advance] 03 C7 CDOL1 Related Data Length 42 [Mastercard] 08 40 - USA 00 00 00 00 00 C8 CRM Country Code [Mastercard] 00 40 00 00 00 00 00 C4 Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 00 C5 Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 50 00 C6 Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 00 00 00 00 00 00 00 00 00 00 00 00 0	0.1		1											
C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 3F FB 00 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 08 40 - USD CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 C6 Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 50 00 C6 Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 67 00 C7 Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 08 40 00 00 08 40 00 00 08 40 00 00 00 00 84 00 00 00 84 00 00 00 84 00 00 00 00 00 00 84 00 00 00 08 40 00 00 00 84 00 00 00 D3 Additional Check Table [Mastercard] PF FF F	C4		TF.	50	00									
Online [M/Chip Advance] 03 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] 00 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 06 50 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 00 00 08 40 00 00 00 08 40 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 00 00 00 00 08 40 00 00 00 84 00 00 D3 Additional Check Table [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 00 00 00 D4 Application Control [M/Chip Advance] 80 00 80 00 C6 02 00 D4 Application File Locator (Contactless) 00 01 01 00 00 00 00 00 00 00 00 00 <td></td> <td></td> <td>~-</td> <td></td>			~-											
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 Lower Limit [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Lower Control (Contactless) - Default [M/Chip Advance] 06 50 00 CE Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 67 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 08 40 00 00 08 40 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 FF F	C5		31	F.B	00									
C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 <t< td=""><td>00</td><td></td><td>0.2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	00		0.2											
[Mastercard] 08 40 USA C8 CRM Country Code [Mastercard] 08 40 USD C4 Accumulator 1 Currency Code [Mastercard] 00														
C8 CRM country Code [Mastercard] 08 40 USA C9 Accumulator 1 Currency Code [Mastercard] 00 <t< td=""><td>C7</td><td>8</td><td>42</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	C7	8	42											
C9 Accumulator 1 Currency Code 08 40 - USD CA Accumulator 1 Lower Limit [Mastercard] 00						0.0								
[Mastercard] Image: Constraint of the second s														
CA Accumulator 1 Lower Limit [Mastercard] 00	C9		08	40	- U	SD								
CB Accumulator 1 Upper Limit [Mastercard] 00														
CD Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 50 00 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00														
Default [M/Chip Advance] 06 FB 00 0							00	00						
CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 06 FB 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 0	CD	· · · · · · · · · · · · · · · · · · ·	06	50	00									
Online [M/Chip Advance] OO OO CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] OO OO OO D1 Accumulator 1 Currency Conversion Table [Mastercard] OB OO														
CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00	CE		06	FB	00									
Decline [M/Chip Advance] D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 00 08 40 00 00 08 40 00 00 08 40 00 00 D3 Additional Check Table [Mastercard] PF FF F														
D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00	CF		00	00	00									
D1 Table [Mastercard] 00 0														
Indice (Master Carl) 00 D3 Additional Check Table [Mastercard] 00	D1													
D3 Additional Check Table [Mastercard] 00 00 00 07 FF		Table [Mastercard]		00	00	08	40	00	00	00	08	40	00	00
DS Addition Control [M/Chip Advance] 84 00 80 00 c6 02 D6 Default ARPC Response Code [M/Chip Advance] 80 00 10 0 10 D7 Application Control [M/Chip Advance] 80 00 80 00 c6 02 D9 Application Control [M/Chip Advance] 80 00 80 0	50	Additional Check Table [Mastercard]		00	00	ਸਤ	ਸਸ	ਸਤ	नन	नन	नन	नन	नन	नन
D6 Default ARPC Response Code [M/Chip Advance] 00 10 D7 Application Control [M/Chip Advance] 80 00 80 00 80 33 30 D9 Application File Locator (Contactless) 08 01 01 00 80 33 30 DF Log Data Table [M/Chip Advance] 00 <td>05</td> <td></td>	05													
D6 Default ARPC Response Code [M/Chip Advance] 00 10 D7 Application Control [M/Chip Advance] 80 00 80 00 60 02 D9 Application File Locator (Contactless) 08 01 01 00 08 03 03 00 DE Log Data Table [M/Chip Advance] 00 <td>D5</td> <td>Application Control [M/Chip Advance]</td> <td>84</td> <td>00</td> <td>80</td> <td>00</td> <td>C6</td> <td>02</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	D5	Application Control [M/Chip Advance]	84	00	80	00	C6	02						
Advance] 80 00 80 00 80 00 80 03 03 00 D9 Application File Locator (Contactless) 08 01 01 00			00	10										
D7 Application Control [M/Chip Advance] 80 00 80 00 c 6 02 D9 Application File Locator (Contactless) 08 01 01 00 08 03 03 00 DE Log Data Table [M/Chip Advance] 00 <td>_</td> <td></td>	_													
D9 Application File Locator (Contactless) 08 01 01 00 08 03 03 00 DE Log Data Table [M/Chip Advance] 00 <td< td=""><td>D7</td><td></td><td>80</td><td>00</td><td>80</td><td>00</td><td>C6</td><td>02</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	D7		80	00	80	00	C6	02						
DE Log Data Table [M/Chip Advance] 00	D9		08	01	01	00	08	03	03	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] 00 00 00 00 00 00 DF 18 Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 00 DF 18 Counter 1 Control (Contactless) [M/Chip Advance] 00 <td>DE</td> <td></td> <td>00</td> <td>00</td> <td>00</td> <td>00</td> <td>00</td> <td>00</td> <td>00</td> <td>00</td> <td>00</td> <td></td> <td></td> <td></td>	DE		00	00	00	00	00	00	00	00	00			
Advance]DF 11Accumulator 1 Control (Contact) [M/Chip Advance]C1DF 12Accumulator 1 Control (Contactless) [M/Chip Advance]C1DF 14Accumulator 2 Control (Contact) [M/Chip Advance]00DF 15Accumulator 2 Control (Contactless) [M/Chip Advance]00DF 16Accumulator 2 Control (Contactless) [M/Chip Advance]00DF 17Accumulator 2 Currency Code [Mastercard]09DF 17Accumulator 2 Currency Conversion Table [Mastercard]09DF 18Accumulator 2 Lower Limit [Mastercard]00DF 19Accumulator 2 Upper Limit [Mastercard]00DF 14Counter 1 Control (Contact) [M/Chip Advance]C1DF 18Counter 1 Control (Contactless) [M/Chip Advance]C1DF 10Counter 2 Control (Contactless) [M/ChipC1	DF 02		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 Control (Contactless) [M/Chip Advance] 00 DF 17 Accumulator 2 Currency Code [Mastercard] 09 99 00														
[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 99 00 0	DF 11		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 99 00 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>														
[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 Table [Mastercard] 09 99 00 0	DF 12		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 99 00 00 00 00 09 99 00 00 00 09 99 00 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>														
[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 99 00 <	DF 14	Accumulator 2 Control (Contact)	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 99 00 00 09 99 00 00 00 09 99 00 00 00 00 09 99 00 00 00 09 99 00														
[M/Chip Advance] 09 99 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 00 00 00 09 99 00 00 00 00 99 99 00 00	DF 15	Accumulator 2 Control (Contactless)	00											
DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 00 09 99 00 00 09 99 00 00 09 99 00 00 00 09 99 00														
[Mastercard] 09 99 00 00 09 99 00 00 09 99 00	DF 16		09	99										
DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 00 09 99 00														
Table [Mastercard] 00 00 00 09 99 00 0	DF 17													
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 14 Counter 1 Control (Contact) [M/Chip Advance] C1 C1 C1 C1 DF 18 Counter 1 Control (Contactless) [M/Chip Advance] C1 C1 C1 C1 DF 10 Counter 2 Control (Contact) [M/Chip C1 C1 C1 C1					00	09	99	00	00	00	09	99	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 C1							<u> </u>	<u> </u>						
DF 1A Counter 1 Control (Contact) [M/Chip C1 Advance] C1 DF 1B Counter 1 Control (Contactless) [M/Chip C1 Advance] C1 DF 1D Counter 2 Control (Contact) [M/Chip 00														
Advance] C1 DF 1B Counter 1 Control (Contactless) [M/Chip Advance] C1 DF 1D Counter 2 Control (Contact) [M/Chip 00				00	00	00	00	00						
DF 1B Counter 1 Control (Contactless) [M/Chip Advance] C1 DF 1D Counter 2 Control (Contact) [M/Chip 00	DF 1A	, , , , , , , , , , , , , , , , , , , ,	C1											
Advance] DF 1D Counter 2 Control (Contact) [M/Chip														
DF 1D Counter 2 Control (Contact) [M/Chip 00	DF 1B	, , , , , , , , , , , , , , , , , , ,	C1											
Advance	DF 1D		00											
/ dvdiloo]		Advance]												

Tag. Element name Data Card v5.x DF 1E Counter 2 Control (Contactless) [M/Chip Advance] 00 00 00 DF 1F Counter 2 Lower Limit [Mastercard] 00			
Advance Advance DF 1F Counter 2 Lower Limit [Mastercard] 00 DF 22 Counter 2 Lower Limit [Mastercard] 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00			Data Card v5.x
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 1E		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 CUTM (Contactless) [M/Chip Advance] 08 40 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 00 00 DF 27 Number Of Days Offline Limit [M/Chip Advance] 00 00 00 00 00 DF 28 Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 <td>DF 1F</td> <td></td> <td>00</td>	DF 1F		00
DF 22 MTA CVM (Contact) [M/Chip Advance] 00	DF 21		00
DF 23 MTA CVM (Contactiess) [M/Chip Advance] 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 24MTA Currency Code [M/Chip Advance]08 40DF 25MTA NoCVM (Contact) [M/Chip Advance]00 00 00 00 00 00DF 26MTA NoCVM (Contactless) [M/Chip Advance]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 28Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2AAccumulator 2 CVR Dependency Data 			00 00 00 00 00 00
DF 25 MTA NoCVM (Contact) [M/Chip Advance] 00 <td></td> <td></td> <td></td>			
DF 25 MTA NoCVM (Contact) [M/Chip Advance] 00 <td>DF 24</td> <td></td> <td>08 40</td>	DF 24		08 40
DF 26 MTA NoCVM (Contactless) [M/Chip Advance] 00	DF 25	MTA NoCVM (Contact) [M/Chip	00 00 00 00 00 00
Advance]AdvanceDF 27Number Of Days Offline Limit [M/Chip Advance]0000DF 28Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]000000DF 29Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]000000DF 2AAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]000000DF 2BAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]000000DF 2CCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]000000DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]000000DF 2ECounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]000000DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]000000DF 2FCounter 2 CVR Dependency Data 	DF 26		00 00 00 00 00 00
DF 2F 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 (Contact) [M/Chip Advance] 00 00 00 DF 2C Counter 1 CVR Dependency Data (Contact) [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 (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) Si///Chip Advance] 00 DF 37 Security Limits Status Common [M/Chip Advance] 00 DF 30 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 00 DF 37 Read Record Filter (Contact) [M/Chip Advance]		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 (Contact) [M/Chip Advance] 00 00 00 DF 2C Counter 1 CVR Dependency Data (Contact) [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 (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 DF 37 Read Record Filter (Contact) [M/Chip Advance] 00 DF 340	DF 27		00 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 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 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 36CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]01DF 37Read Record Filter (Contactless) (M/Chip Advance]00DF 40Read Record Filter (Contactless) (M/Chip Advance]01DF 41DS Management Control [M/Chip20			
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 (Contact) [M/Chip Advance] 00 00 00 DF 2C Counter 1 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 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 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 38 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 00 DF 37 Read Record Filter (Contact) [M/Chip Advance] 00 DF 37 Read Record Filter (Contact) [M/Chip Advance] 00 DF 36 <t< td=""><td>DF 28</td><td></td><td>00 00 00</td></t<>	DF 28		00 00 00
(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 (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 30Interface Enabling Switch [M/Chip Advance]01DF 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 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]00DF 38Read Record Filter (Contactless) (M/Chip Advance]00DF 40Reacrof Filter (Contactless) (M/Chip Advance]00DF 41DS Management Control [M/Chip20	DF 29		00 00 00
DF 2AAccumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]000000DF 2BAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]000000DF 2CCounter 1 CVR Dependency Data (Contact) [M/Chip Advance]000000DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]000000DF 2ECounter 1 CVR Dependency Data (Contact) [M/Chip Advance]000000DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]000000DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]000000DF 30Interface Enabling Switch [M/Chip Advance]0101DF 35Security Limits Status (Contactless) [M/Chip Advance]0000DF 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 31Read Record Filter (Contact) [M/Chip Advance]00DF 34Read Record Filter (Contactless) [M/Chip Advance]00DF 41DS Management Control [M/Chip20			
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 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 Common [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]00DF 31CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 34Read Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless) [M/Chip Advance]00DF 41DS Management Control [M/Chip Advance]20	DF 2A		00 00 00
DF 2D Notified 2011 delay 5 2011 delay 5 2011 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 (Contact) [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 DF 35 Security Limits Status (Contactless) [M/Chip Advance] 00 DF 37 Security Limits Status Common [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 DF 30 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 00 DF 30 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 00 DF 40 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 20 <td></td> <td>(Contact) [M/Chip Advance]</td> <td></td>		(Contact) [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 3FCounter 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 38CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 35Read Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless) [M/Chip Advance]00DF 41DS Management Control [M/Chip20	DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
DF 20 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 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 37 Security Limits Status Common [M/Chip Advance] 00 DF 30 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 00 DF 31 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 00 DF 35 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 20			
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 37CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 38CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]00DF 340Read Record Filter (Contactless) [M/Chip Advance]00DF 40Read Record Filter (Contactless) [M/Chip Advance]00DF 41DS Management Control [M/Chip 2020	DF 2C		00 00 00
DF 2D Overlag (Contactless) [M/Chip Advance] 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 36 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 00 DF 37 Security Limits Status Common [M/Chip Advance] 00 DF 37 Security Limits Status Common [M/Chip Advance] 00 DF 38 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 00 DF 39 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 00 DF 37 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 20			
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 38CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 39CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 37Read Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless) [M/Chip Advance]00DF 41DS Management Control [M/Chip20			
DF 2E Counter 2 OVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] 01 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 37 Security Limits Status Common [M/Chip Advance] 00 DF 37 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] 00 DF 30 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 00 DF 37 Read Record Filter (Contact) [M/Chip Advance] 00 DF 37 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 20	DE 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 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) [M/Chip Advance]00DF 41DS Management Control [M/Chip20			
(Contactless) [M/Chip Advance]DF 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 3DCVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 3FRead Record Filter (Contact) [M/Chip Advance]00DF 3FRead Record Filter (Contactless) [M/Chip Advance]00DF 40Read Record Filter (Contactless) [M/Chip Advance]00DF 41DS Management Control [M/Chip 2020	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 3FRead Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless) [M/Chip Advance]00DF 41DS Management Control [M/Chip20			
Advance]00DF 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) [M/Chip Advance]00DF 41DS Management Control [M/Chip20	DF 30		01
DF 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 3DCVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 3FRead Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless) [M/Chip Advance]00DF 41DS Management Control [M/Chip20		.	
[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) [M/Chip Advance]00DF 41DS Management Control [M/Chip 2020	DF 35		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 20			
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 20	DF 37		00
(Contact) [M/Chip Advance]DF 3DCVR Issuer Discretionary Data (Contactless) [M/Chip Advance]00DF 3FRead Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless) [M/Chip Advance]00DF 41DS Management Control [M/Chip20		Advance]	
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 20	DF 3C	CVR Issuer Discretionary Data	00
(Contactless) [M/Chip Advance] 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 20		(Contact) [M/Chip Advance]	
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 20	DF 3D	CVR Issuer Discretionary Data	00
DF 40 Read Record Filter (Contactless) 00 [M/Chip Advance] 20			
DF 40 Read Record Filter (Contactless) 00 [M/Chip Advance] 20	DF 3F	Read Record Filter (Contact) [M/Chip	00
[M/Chip Advance] DF 41 DS Management Control [M/Chip 20			
DF 41 DS Management Control [M/Chip 20	DF 40		00
Advance]	DF 41		20
		Advance]	

4.9.5 Contact: CVM List - U.S. Maestro, AID A000000042203

Cardhol	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	Fail								

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	67 99 99
50	Application Label	55 53 20 4D 41 45 53 54 52 4F 20 20
50		20 20 20 20 - 'US MAESTRO'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 00 05 1D 25 12
57		22 01 48 35 94 90 OF
5A	Application Primary Account Number	67 99 99 89 00 00 02 00 05 1F
0.1	(PAN)	
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
0. 20		73 74 20 43 61 72 64 20 30 39 20 20
		20 20 - 'USA DEBIT/Test Card 09'
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 20
5F 34	Application PAN Sequence Number	12
5F 55		55 53 - 'US'
	Issuer Country Code (alpha2 format)	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 via
		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	
	2 (CDOL2)	9F 7C 14
8D 8E		9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 00 00 02 05 42 03
	2 (CDOL2)	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	2 (CDOL2) Cardholder Verification Method (CVM) List	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 00 00 02 05 42 03
8E 94	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL)	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 00 02 05 42 03 1F 03 00
8E 94 94	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application File Locator (AFL)	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 00 02 05 42 03 08 01 01 00 08 03 03 00 00 00
8E 94	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL)	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 0
8E 94 94	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application File Locator (AFL)	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 00 02 05 42 03 08 01 01 00 08 03 03 00
8E 94 94	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application File Locator (AFL)	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 00 02 05 42 03 08 01 01 00 08 03 03 00 00 00 00 08 01 01 00 08 03 03 00 00 1
8E 94 94	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application File Locator (AFL)	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 02 05 42 03 08 01 01 00 08 03 03 00 00 00 08 01 01 00 08 03 03 00 00 FF C0 BYTE 1: b8 - Domestic cash trans. valid valid Valid Valid Valid Valid Valid
8E 94 94	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application File Locator (AFL)	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 02 05 42 03 08 01 01 00 08 03 03 00 00 08 01 01 00 08 03 03 00 00 08 01 01 00 08 03 03 00 00 FF C0 C0 BYTE 1: b8 Domestic cash trans. valid b7 Int'l cash transactions valid b6 Domestic goods valid b5 International goods valid 55
8E 94 94	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application File Locator (AFL)	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 02 05 42 03 08 01 01 00 08 03 03 00 00 08 01 01 00 08 03 03 00 00 08 01 01 00 08 03 03 00 00 FF C0 BYTE 1: b8 Domestic cash trans. valid b7 Int'l cash transactions valid b6 Domestic goods valid b5 International goods valid b4 Domestic services valid
8E 94 94	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application File Locator (AFL)	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 02 05 42 03 08 01 01 00 08 03 03 00
8E 94 94	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application File Locator (AFL)	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 00 02 05 42 03 08 01 01 00 08 03 03 00
8E 94 94	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application File Locator (AFL)	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 02 05 42 03 08 01 01 00 08 03 03 00 00 08 01 01 00 08 03 03 00 00 08 01 01 00 08 03 03 00 00 08 01 01 00 08 03 03 00 00 08 01 01 00 08 03 03 00 00 FF C0 BYTE 1: b8 Domestic cash trans. valid 5 International goods valid 5 b7 International goods valid 5 International services valid 5 1
8E 94 94	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application File Locator (AFL)	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 00 00 00 00 02 05 42 03 08 01 01 00 08 03 03 00
8E 94 94	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application File Locator (AFL)	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 02 05 42 03 1F 03 00
8E 94 94 9F 07	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application Usage Control	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 02 05 42 03 1F 03 00
8E 94 94	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application Usage Control Application Usage Control	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 00 00 02 05 42 03 08 01 01 00 08 03 03 00 02 00 02 00 02 00 00 00 00 00 00 00 00 02 00 00 00 00 00 00 00
8E 94 94 9F 07	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application Usage Control	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 02 05 42 03 1F 03 00
8E 94 9F 07 9F 08	2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application Usage Control Application Usage Control	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 00 02 05 42 03 08 01 01 00 08 03 03 00 00 00 08 01 01 00 08 03 03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 02 03 03 00 00 02 00 02 03 00 00 00 00 02 00 02 00 02 03 00 03 00 00 00 02

4.9.6 Contact: Application Tag data, AID A000000042203

Tag	Element name	Da	ta								Ca	rd v	/5.x
9F 10	Issuer Application Data [M/Chip			xx	xx	хx	хx	хx	хх	xx			
	Advance]	xx	xx	xx	xx	xx	xx	*					
9F 11	Issuer Code Table Index	01											
9F 12	Application Preferred Name					61				72	6F	20	20
			20	20	20	- 'L	IS M	laes	tro'				
9F 14	Counter 1 Lower Limit [Mastercard]	00											
9F 17	Personal Identification Number (PIN)	03											
05.00	Try Counter												
9F 23	Counter 1 Upper Limit [Mastercard]	00								<u>ـ</u>			
9F 26	Application Cryptogram (AC)	80 xx	XX	XX	XX	xx	XX	XX	XX	^			
9F 27	Cryptogram Information Data (CID)		xx	*									
9F 36	Application Transaction Counter (ATC)			- U	20								
9F 42	Application Currency Code		40 0A	- 0	30								
9F 4D 9F 4F	Transaction Log Entry	-	-	01	٥r	02	06	55	21	02	QZ	03	٩٣
96 46	Transaction Log Format					06							
		7C	14										
9F 7E	Application Life Cycle Data [Mastercard]					00							
						04							
						00 00							
C3	Card Issuer Action Code (Contact) -		00		00	00	00	00	00	00	00	00	00
05	Decline [M/Chip Advance]												
C4	Card Issuer Action Code (Contact) -	06	50	00									
01	Default [M/Chip Advance]												
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	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							
СВ	Accumulator 1 Upper Limit [Mastercard]				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									
D 4	Decline [M/Chip Advance]	0.0	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		00	00
D3	Additional Check Table [Mastercard]	00	00	00	FF	FF	FF	FF	FF	FF	FF	FF	FF
						FF							
D5	Application Control [M/Chip Advance]			80	00	C6	02						
D6	Default ARPC Response Code [M/Chip	00	10										
	Advance]												
D7	Application Control [M/Chip Advance]					C6		<u> </u>					
D9	Application File Locator (Contactless)					08				• •			
DE	Log Data Table [M/Chip Advance]		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)	C1											
	[M/Chip Advance]	1											

T		Dete	
Tag	Element name	Data Card v5.	.X
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 9	
	Table [Mastercard]	00 00 00 09 99 00 00 00 09 99 00 0	0
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00	
DF 18	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00	
DF 1A	Counter 1 Control (Contact) [M/Chip	C1	
	Advance]		
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 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	
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 (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	00 00 00	
DF 2D	(Contact) [M/Chip Advance] Counter 1 CVR Dependency Data	00 00 00	
DF 2E	(Contactless) [M/Chip Advance] 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	
	Advance]		
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00	
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00	

Tag	Element name	Data	Card v5.x
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

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				

4.10.2 Contact: Application Tag data, AID A000000043060

Tag	Element name	Data	Card v6.x
42	Issuer Identification Number (IIN)	54 13 33	
50	Application Label	55 53 20 4D 41 45 53 54 52 MAESTRO'	4f - 'US
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 08 08 10 79 00 00 0F	51 22 20
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 73 74 20 43 61 72 64 20 31 20 20 - 'USA DEBIT/Test Card 10'	0 - 00
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 20	
5F 34	Application PAN Sequence Number	13	
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'	

Tag	Element name	Data Card v6.x
82	Application Interchange Profile [M/Chip,	18 00
02	PayPass]	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 via
		External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
0.4		b8 - EMV mode NOT supported A0 00 00 00 04 22 03
84	Dedicated File (DF) Name	
87	Application Priority Indicator	01
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
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
8F	Certification Authority Public Key Index	FA
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
00		BB 9D 1D 75 A0 2F AA 9C 81 4A FC 58 D3 52 41 07
92	Issuer Public Key Remainder	08 02 04 01 18 01 01 00 20 01 01 00
94	Application File Locator (AFL)	FF C0
9F 07	Application Usage Control	BYTE 1:
		b8 - Domestic cash trans. 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
		b2 - ATMS valid b1 - non-ATM terminals 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 14 xx
a= : :		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
05.4.4		Maestro'
9F 14	Lower Consecutive Offline Limit	00
9F 17	Personal Identification Number (PIN)	01
	Try Counter	

Tag	Element name	Data Card v6.x
9F 1F	Track 1 Discretionary Data	30 36 32 39 33 30 34 32 33 30 30 30
0= 00		30 30 30 30 30 30 30 30 30 30 30 30 30
9F 23	Upper Consecutive Offline Limit	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 32	Issuer Public Key Exponent	03
9F 36	Application Transaction Counter (ATC)	
9F 42	Application Currency Code	08 40 - USD 02
9F 44	Application Currency Exponent	4C BF 13 28 20 81 6C 78 CE AF C1 CB
9F 46	ICC Public Key Certificate	16 A9 C7 FC B7 22 5E 07 27 F2 71 A9
		12 89 4C EE B7 B4 DD 99 54 F1 C8 71
		BE 2C 88 37 9A D5 6C 07 3F 2F 3F 05
		67 6D 68 26 0A B4 36 30 BD 28 7E 26
		1B 42 20 1C 14 F6 FA FE 20 0F 1C 11 3E C6 04 5A 36 CE B8 DF 56 70 C0 6F
		06 51 5F D6 88 F2 AF D2 5F B5 D1 38
		C3 C3 1F 5E 04 59 92 B9 F4 00 91 CC
		03 6C F1 A4
9F 47	ICC Public Key Exponent	03
9F 48	ICC Public Key Remainder	F3 25 B3 BD AC FB F2 AD 0D 2C A1 DE
		FF 97 C7 E4 A6 3C E0 4C 97 FE 9B 6B A9 86 C7 1C 35 71 2E 0E 6C 1D 89 4F
		5F 9F D6 99 82 C7
9F 49	Dynamic Data Authentication Data	9F 37 04
	Object List (DDOL)	
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
		36 02 9F 52 06
9F 7E	Application Life Cycle Data [Mastercard]	03 10 0C 12 00 09 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF
		FF FF FF FF 00 04 00 00 02 60 00 00
		38 4A 02 11 50 35 43 44 30 37 32 20
C3	Card Issuer Action Code - Decline	00 00 00
	[Mastercard]	
C4	Card Issuer Action Code - Default	06 50 00
	[Mastercard]	
C5	Card Issuer Action Code - Online	06 FB 00
00	[Mastercard]	
C6	Counters [Mastercard]	00 01 00 00 00 00 00 00 00 00 00
C7	CDOL1 Related Data Length	2В
C8	[Mastercard] CRM Country Code [Mastercard]	08 40 - USA
C8 C9	CRM Currency Code [M/Chip4]	08 40 - USD
CA	Lower Cumulative Offline Transaction	00 00 00 00 00 00
	Amount [M/Chip]	
СВ	Upper Cumulative Offline Transaction	00 00 00 00 00 00
	Amount [M/Chip]	
D1	Currency Conversion Table [M/Chip]	08 40 00 01 00 08 40 00 01 00 08 40
	, - L · - J	00 01 00 08 40 00 01 00 08 40 00 01
		00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chin]	FF FF FF FF FF FF 82 00
D5 D6	Application Control [M/Chip] Default ARPC Response Code	00 10
	[M/Chip4]	
DF 02	Security Limits Status [Mastercard]	00
2. 02		* Tag value changes with card usage

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	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	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	Element name	Data Card v5.x
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 51 22 01
		14 83 59 49 00 OF
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	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	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 via
		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 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14
		JI /0 II

Card v5.x

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 41 03 42 03 5E 03 1F 00 00 00
94	Application File Locator (AFL)	08 01 02 00
9F 07	Application Usage Control	FF C0
01 07	Application Coage Control	BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals 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 10 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)	09
	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 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 04 10 0B 14 00 01 00 00 50 17 79 00
9F 7E	Application Life Cycle Data [Mastercard]	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) -	06 00 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]	
00		08 40 - USA
C8	CRM Country Code [Mastercard]	08 40 - 00A
C8 C9	CRM Country Code [Mastercard] Accumulator 1 Currency Code	08 40 - USD
	Accumulator 1 Currency Code	
C9	Accumulator 1 Currency Code [Mastercard]	
C9 CA	Accumulator 1 Currency Code [Mastercard] Accumulator 1 Lower Limit [Mastercard]	08 40 - USD
C9	Accumulator 1 Currency Code [Mastercard]	08 40 - USD 00 00 00 00 00 00

Data

Tag

Element name

Tag	Element name	Da	ta								Ca	rd ۱	/5.x
CE	Card Issuer Action Code (Contactless) -	06	FB	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
D5	Application Control [M/Chip Advance]					FF C6							
D5 D6	Default ARPC Response Code [M/Chip	00											
20	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											
DF 14	[M/Chip Advance] Accumulator 2 Control (Contact)	00											
DF 14	[M/Chip Advance]	00											
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				99
	Table [Mastercard]		00	00	09	99	00	00	00	09	99	00	00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00	00	00	00	00	00						
DF 18 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	C1											
	Advance]												
DF 1D	Counter 2 Control (Contact) [M/Chip	00											
	Advance]												
DF 1E	Counter 2 Control (Contactless) [M/Chip	00											
	Advance]	00											
DF 1F DF 21	Counter 2 Lower Limit [Mastercard]	00											
DF 21 DF 22	Counter 2 Upper Limit [Mastercard] MTA CVM (Contact) [M/Chip Advance]		00	00	00	00	00						
DF 22 DF 23	MTA CVM (Contact) [M/Chip Advance]					00							
20	Advance]												
DF 24	MTA Currency Code [M/Chip Advance]	08	40										
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										
DE 65	Advance]		~~	0.0									
DF 28	Accumulator 1 CVR Dependency Data	00	00	00									
DF 29	(Contact) [M/Chip Advance]	00	00	00									
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]		00	00									
		ļ											
DF 2A	Accumulator 2 CVR Dependency Data	00	00	00									

Tog	Flomont nome	Data Card v5 v
Tag	Element name	Data Card v5.x
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
2. 00	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	00
DI OD	(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
	.	20
	Advance]	

4.11.3 Contact: CVM List - U.S. checking, AID A00000004220301

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				

4.11.4 Contact: Application Tag data, AID A00000004220301

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 43 48 45 43 4B 49 4E 47 20 20 20 20 20 - 'US CHECKING'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 51 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	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	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 SDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via External Auth command b2 - On device Cardholder verification NOT supported 84 Dedicated File (DF) Name A0 00 00 00 42 20 301 87 Application Priority Indicator 97 82 Card Risk Management Data Object List 1 (CDOL1) 97 02 06 97 03 06 97 1A 02 95 05 97 2A 02 94 03 9C 01 97 37 04 97 35 00 97 45 02 97 4C 08 97 34 04 97 35 00 97 45 02 97 4C 08 97 34 04 97 35 00 97 45 02 97 4C 08 97 34 04 97 35 00 97 45 02 97 4C 08 97 37 04 97 4C 00 98 00 00 00 00 00 00 00 00 00 00 00 00 00			
BYE 1: b7 - Offline SDA NOT supported b6 - Offline SDA NOT supported b6 - Offline SDA NOT supported b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b8 - Edward b7 - Offline SDA NOT supported b7 - Offline SDA NOT supported b7 - Offline SDA NOT supported b8 - Edward b8 - Edward 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 b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b2 - Edward b2 - Edward b2 - Edward b2 - Edward b3 - Edward b2 - 50 - 57 - 37 - 04 - 97 - 35 - 05 - 97 - 37 - 04 - 97 - 42 - 03 - 05 - 97 - 72 - 04 - 97 - 42 - 03 - 05 - 97 - 72 - 04 - 97 - 97 - 97 - 97 - 97 - 97 - 97 - 9	Tag	Element name	Data Card v5.x
b7 - Offline SDA NOT supported b6 - Offline SDA NOT supported b7 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT support	82	Application Interchange Profile	
b6 - Offline DDA NOT supported b5 - Cardholder verification supported b3 - Cardholder verification NOT supported b1 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported / GEN AC NOT supported / GEN AC NOT supported / GEN AC NOT support			
b5 Cardholder verification supported b4 b4 Terminal risk mgmt to be performed b3 b2 On device Cardholder verification NOT supported b1 b2 On device Cardholder verification NOT supported b1 b1 Combined DDA / GEN AC NOT supported b1 B2 On device Cardholder verification NOT supported b1 B3 ENV mode NOT supported B1 B4 Dedicated File (DF) Name A0 00 B7 O2 06 B7 Card Risk Management Data Object List 2 (CDOL2) 97 B0 Card Risk Management Data Object List 2 (CDOL2) 97 BE Cardholder Verification Method (CVM) List 10 B4 Application File Locator (AFL) 08 98 O0 00 00 97 Application Usage Control 97 97 Application Version Number 00 00 97 O1 00 00 00 97 Application Version Number 00 02 02 97 01 Issuer Action Code - Denial 00			
b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined Combine b2 - ATIM sualid b2 - Combined DDA (DDA D			
b3 - Issuer authentication NOT supported via External Auth command b1 - Combined DDA / GEN AC NOT supported B4 Dedicated File (DF) Name A0 00 00 00 04 22 03 01 B7 Application Priority Indicator 02 BC Card Risk Management Data Object List 1 (CDOL1) 9F 02 06 9F 03 06 9F 1A 02 95 05 51 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 02 9F 7C 14 BD Card Risk Management Data Object List 2 (CDOL2) 9I 0A 8A 02 95 05 9F 37 04 9F 4C 04 9F 7C 14 BE Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 02 05 42 02 9F 07 Application File Locator (AFL) 08 01 01 00 08 03 03 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b6 - Domestic cash trans. valid b6 - Domestic cash trans. valid b7 - Inti cash trans. valid b6 - Domestic cash trans. valid b7 - Inti cash trans. valid b6 - Domestic cashback allowed b7 - International services valid b1 - non-ATM terminals valid b2 - Thremational cashback allowed b7 - International cashbac			
External Auth command b2 - On device Cardholder verification NOT supported B4 Dedicated File (DF) Name A0 00 00 04 22 03 01 87 Application Priority Indicator 02 86 Card Risk Management Data Object List 1 (CDCL1) PF 02 06 9F 03 06 9F 1A 02 95 05 51 87 Application Priority Indicator 02 80 Card Risk Management Data Object List 2 (CDCL2) PF 02 06 9F 03 06 9F 1A 02 95 05 9F 37 04 9F 35 01 81 Card Risk Management Data Object List 2 (CDCL2) 9F 00 00 00 00 00 00 00 02 05 42 03 82 Cardholder Verification Method (CVM) 00 00 00 00 00 00 00 00 02 05 42 03 1bit 1bit 03 00 00 00 00 00 00 00 00 00 00 00 02 05 42 03 9F 07 Application File Locator (AFL) 08 01 01 00 08 03 03 00 9F 07 Application Usage Control PF CC O BYTE 1: 86 -Domestic cash trans. valid b5 - International goods valid b4 - Domestic cash trans. valid b5 - International goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic cash back allowed 9F 08 Application Version Number 00 00 00 9F 00 Issuer Action Code - Default 80 50 9C 88 00 97 9F 01 Issuer Action Code - Online 80 70 9C 98 00			
supported supported B4 Dedicated File (DF) Name A0 00 00 00 4 22 03 01 B7 Application Priority Indicator 02 B6 Card Risk Management Data Object List 1 (CDCL1) 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 00 9F 45 02 9F 4C 08 9F 34 03 9F 21 02 9F 7C 14 BD Card Risk Management Data Object List 2 (CDCL2) 91 0A 8A 02 95 05 9F 37 04 9F 4C 04 9F 7C 14 BE Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 02 05 42 02 1F 03 00 00 00 00 00 00 00 00 00 00 02 05 42 02 1F 03 00 00 00 00 00 00 00 00 00 00 00 00			
b1 Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported 84 Dedicated File (DF) Name A0 00 00 04 22 03 01 87 Application Priority Indicator 02 97 02 06 9F 03 06 9F 1A 02 95 05 51 8C Card Risk Management Data Object List 9F 02 06 9F 03 06 9F 1A 02 9F 02 05 9F 37 04 9F 4C 03 9F 10 9F 10 9F 02 05 9F 37 04 9F 4C 04 04 9F 03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 02 9F 07 Application File Locator (AFL) 9F 05 9F 07 Application Disage Control			b2 - On device Cardholder verification NOT
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 51 2A 02 9A 03 9C 01 9F 37 04 9F 35 03 9F 45 02 9F 4C 08 9F 34 03 9F 21 02 9F 7C 14 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 4C 04 1F 03 00 00 00 00 00 00 00 00 00 00 00 00			
b8 EMV mode NOT supported 84 Dedicated File (DF) Name A0 00 00 00 42 20 03 01 87 Application Priority Indicator 92 8C Card Risk Management Data Object List 9F 02 06 9F 03 06 9F 1A 02 95 05 51 2A 02 9F 4C 08 9F 37 04 9F 35 01 9F 7C 14 8D Card Risk Management Data Object List 9F 02 05 9F 37 04 9F 4C 08 07 97 04 9F 4C 06 2 (CDOL2) 8E Cardholder Verification Method (CVM) List 91 0A 8A 02 95 05 9F 37 04 9F 4C 06 00 00 00 00 00 00 00 00 00 00 00 00			
84 Dedicated File (DF) Name A0 00 00 04 22 03 01 87 Application Priority Indicator 02 97 03 06 97 14 02 95 05 51 1 (CDOL1) 97 02 97 03 06 97 14 97 35 01 97 72 14 02 97 72 08 97 70 49 97 72 14 8D Card Risk Management Data Object List 91 0A 8A 02 95 95 97 70 49 97 72 01 97 72 14 01 00 <t< td=""><td></td><td></td><td></td></t<>			
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 51 2A 02 9A 03 9C 01 9F 37 04 9F 35 00 9F 45 02 9F 4C 08 9F 34 03 9F 21 00 9F 7C 14 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 4C 06 2 (CDOL2) 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 00 00	0.4	Dedicated File (DE) Name	
8C Card Risk Management Data Object List 1 (CDOL1) 9F 02 06 9F 03 06 9F 13 02 95 05 55 2A 02 9A 03 9C 01 9F 37 04 9F 35 05 9F 45 02 9F 4C 08 9F 34 03 9F 21 05 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 05 1F 03 00 00 00 00 00 00 00 00 00 00 02 05 42 05 9F 07 Application File Locator (AFL) 08 01 01 00 08 03 03 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b6 - Domestic goods valid b6 - Domestic services valid b2 - ATMs valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Internatio			
1 (CDOL1) 2A 02 9A 03 9C 01 9F 37 04 9F 35 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 06 2 (CDOL2) 8E Cardholder Verification Method (CVM) List 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 9F 07 Application Usage Control FF C0 BYTE 1: b8 Domestic cash trans. valid b5 - International geody valid b4 - Domestic goods valid b5 - International geody valid b5 - International services valid b5 - International services valid b7 - Int? cash trans. valid b7 - Int? valid b7 - Int? cash 20 0 00 00 00 00 00 00 00 00 00 9F 12 Applic			
If (EDOLT) 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 9D 8D Card Risk Management Data Object List 2 (CDOL2) 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 02 05 42 03 9F 07 Application File Locator (AFL) 08 01 01 00 08 03 03 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Intl' cash transactions valid b6 - Domestic goods valid b3 - International services valid b4 - Domestic cashback allowed b7 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed 9F 00 Issuer Action Code - Default B0 50 9C 88 00 9F 01 Issuer Action Code - Denial 00 00 00 00 00 9F 10 Issuer Action Code - Online B0 70 9C 98 00 9F 11 Issuer Action Code - Online B0 70 9C 98 00 9F 12 Application Prefered 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 12 Application Prefered 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 26 Application Transaction Counter (PIN) Try Counter 99 <t< td=""><td>8C</td><td></td><td></td></t<>	8C		
9F 7c 14 8D Card Risk Management Data Object List 91 0A 8A 02 95 05 9F 37 04 9F 4C 06 2 (CDOL2) 00 00 00 00 00 00 00 00 02 05 42 03 8E Cardholder Verification Method (CVM) 1F 03 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 00 00 00 00 00 00 00		1 (CDOL1)	
2 (CDOL2) 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 00 00			
2 (CDOL2) 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 02 05 42 00 1F 03 00 00 00 00 94 Application File Locator (AFL) 08 01 01 00 08 03 03 00 9F 07 Application Usage Control FF c0 BYTE 1: b8 - Domestic cash trans. valid b6 - Domestic goods valid b4 - Domestic services valid b5 - International goods valid b4 - Domestic services valid b5 - International goods valid b5 - International services valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Internation Cashback allowed b7 - Internation Cashback	8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
List1F 03 00 00 0094Application File Locator (AFL)08 01 01 00 08 03 03 009F 07Application Usage ControlFF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic gods valid b5 - International gods valid b4 - Domestic services valid b3 - International gods valid b4 - Domestic cashback allowed b7 - International services valid b2 - ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed <td></td> <td></td> <td></td>			
List 1F 03 00 00 00 94 Application File Locator (AFL) 08 01 01 00 08 03 03 00 9F 07 Application Usage Control FF C0 BYTE 1: b8<- Domestic cash trans. valid	8E		00 00 00 00 00 00 00 00 02 05 42 03
9F 07 Application Usage Control FF C0 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b7 - Int'l cash transactions valid b3 - International services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 01 Issuer Action Code - Default B0 50 9C 88 00 9F 05 Issuer Action Code - Online B0 70 9C 98 00 9F 10 Issuer Action Data [M/Chip xx 10 xx		List	1F 03 00 00 00 00
BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b7 - Int'l cash transactions valid b6 - Domestic services valid b7 - International goods valid b4 - Domestic services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 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 xx	94	Application File Locator (AFL)	08 01 01 00 08 03 03 00
b8 - Domestic cash trans. valid b7 - Int' cash transactions valid b6 - Domestic goods valid b5 - International goods valid b3 - International services valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Internat	9F 07	Application Usage Control	
b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b3 - International services valid b2 - ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Issuer Action Code - Denial b7 - 00 0 00 00 00 00 00 00 b7 - Issuer Action Code - Online b7 - 1 I Issuer Code Table Index b7 - 00 <b< td=""><td></td><td></td><td></td></b<>			
b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed9F 08Application Version Number00 00 029F 00Issuer Action Code - DefaultB0 50 9C 88 009F 01Issuer Action Code - Denial00 00 00 00 00 00 009F 05Issuer Action Code - OnlineB0 70 9C 98 009F 10Issuer Application Data [M/Chip Advance]xx 10 xx			
b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b3 - International services valid b3 - International services valid b3 - ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed p8 08 Application Version Number9F 08Application Version Number 00 0200 029F 00Issuer Action Code - Default 1 suer Action Code - Denial00 02 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 10 xx			
b4 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Issuer Action Code - Denial b7 - Issuer Action Code - Online b7 - Issuer Action Code - Online b7 - Issuer Code Table Index b7 - Person			
b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals 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 - Denial00 00 00 009F 0FIssuer Action Code - OnlineB0 70 9C 98 009F 10Issuer Application Data [M/Chip Advance]xx 10 xx			
b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Issuer Action Code - Denial 00 00 00 00 00 b7 - Issuer Action Code - Online B0 70 9C 98 00 b7 - Issuer Action Code - Online B0 70 9C 98 00 b7 - Issuer Action Data [M/Chip xx			
BYTE 2: b8 - Domestic 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 10 xx			
b8 - Domestic cashback allowed b7 08 Application Version Number 00 02 9F 00 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 10 xx			b1 - non-ATM terminals valid
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 10 xx			
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 10 xx			
9F 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 10 xx	05.00		
9F 0EIssuer Action Code - Denial00 00 00 00 009F 0FIssuer Action Code - OnlineB0 70 9C 98 009F 10Issuer Application Data [M/Chip Advance]xx 10 xx			
9F 0FIssuer Action Code - OnlineB0709C98009F 10Issuer Application Data [M/Chip Advance]xx10xxx			
9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx			
Advance]xx xx xx xx xx xx xx xx xx xx9F 11Issuer Code Table Index019F 12Application Preferred Name55 53 20 43 68 65 63 6B 69 6E 67 20 20 20 20 20 - 'US Checking'9F 14Counter 1 Lower Limit [Mastercard]009F 17Personal Identification Number (PIN) Try Counter099F 23Counter 1 Upper Limit [Mastercard]009F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx xx9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)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 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 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx xx *	95 10		
9F 12Application Preferred Name55 53 20 43 68 65 63 6B 69 6E 67 20 20 20 20 20 - 'US Checking'9F 14Counter 1 Lower Limit [Mastercard]009F 17Personal Identification Number (PIN) Try Counter099F 23Counter 1 Upper Limit [Mastercard]009F 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 xx xx	0E 11		
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 xx xx 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx xx xx			
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 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx xx xx *	9F 12	Application Freiened Name	
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 xx xx 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx xx xx *	9F 14	Counter 1 Lower Limit [Mastercard]	,
of Try Counter Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 00 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 xx *			
9F 23Counter 1 Upper Limit [Mastercard]009F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx xx9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xx xx x	. <i>i</i>		
9F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx xx xx9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xx xx *	9F 23		00
9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) ** ** *		· · · · · · · · · · · · · · · · · · ·	xx xx xx xx xx xx xx xx *
9F 36 Application Transaction Counter (ATC) xx xx *			80
			xx xx *
19F42 Application Currency Code 08 40 - USD	9F 42	Application Currency Code	08 40 - USD
9F 4D Transaction Log Entry 0B 0A			
36 02 9F 52 06 DF 3E 01 9F 21 03 9F	9F 4F	L Transaction Lod Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
7C 14	9F 4F	I ransaction Log Format	36 02 9F 52 06 DF 3E 01 9F 21 03 9F

9F 7E Application Life Cycle Data [Mastercard] 04 10 00 10 00	Tag	Element name	Da	ita								Са	rd ۱	/5.x
A0 00<		Application Life Cycle Data [Mastercard]												
00 00<														
Card Issuer Action Code (Contact) - Decline [M/Chip Advance] 00 00 00 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 06 50 00 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 06 FB 00 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 09 C6 PIN Try Limit [M/Chip Advance] 09 C7 CDOL1 Related Data Length 42 [Mastercard] 08 40 - USA C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code 08 40 - USA [Mastercard] 00 00 00 00 00 00 00 CB Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 06 50 00 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 00 08 40 00 00 00 84 00 00 00 08 40 00 00 00 00 00 00 00 00 00 00 00 00														
Column And Advance Column Advance Column Advance C4 Card Issuer Action Code (Contact) - Online [MChip Advance] 06 50 00 C5 Card Issuer Action Code (Contact) - Online [MChip Advance] 09 C6 PIN Try Limit [MChip Advance] 09 C7 CDOL1 Related Data Length 42 [Mastercard] 08 40 - USA C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code 08 40 - USA CA Accumulator 1 Currency Code (Contactless) - Default [MChip Advance] 00 00 00 00 00 00 00 CA Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 C6 Card Issuer Action Code (Contactless) - Default [MChip Advance] 06 FP 00 C6 Card Issuer Action Code (Contactless) - Decline [MChip Advance] 00 00 00 00 08 40 00 00 08 40 00 00 C7 Card Issuer Action Code (Contactless) - Decline [MChip Advance] 00 00 00 00 00 00 00 00 00 08 40 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 00 00	<u></u>	Card laguer Action Cada (Cantact)					00	00	00	00	00	00	00	00
C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 06 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 06 FB 00 C6 PIN Try Limit [M/Chip Advance] 09 07 CDOL1 Related Data Length 42 C7 CDOL1 Related Data Length 42 08 40 -USA C9 Accumulator 1 Currency Code 08 40 -USA C9 Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 <td< td=""><td>03</td><td></td><td>00</td><td>00</td><td>00</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	03		00	00	00									
Default [M/Chip Advance] 06 FB 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 09 C6 PIN Try Limit [M/Chip Advance] 09 C7 CDOL1 Related Data Length 42 [Mastercard] 08 40 - USA 00 00 00 00 00 00 C8 CRM Country Code [Mastercard] 00 40 00 00 00 00 00 C8 Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 CB Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 00 84 40 00 00 00 00 84 40 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 00 FF FF FF FF FF FF FF FF FF F	C1		06	50	00									
C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 09 C6 PIN Try Limit [M/Chip Advance] 09 C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code 08 40 - USD CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 C6 Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 50 0 C6 Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 67 00 00 C7 Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 06 67 00 00 C7 Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 08 40 00 00 08 40 00 00 08 40 00 00 00 00 00 80 40 00 00 08 40 00 00 08 40 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 00 FF FF FF FF FF FF FF FF FF F	04		00	50	00									
Online [M/Chip Advance] 09 C6 PIN Try Limit [M/Chip Advance] 09 C7 CDOL1 Related Data Length 42 [Mastercard] 08 40 - USA 00 00 00 00 00 C8 CRM Country Code [Mastercard] 00 00 00 00 00 00 00 C9 Accumulator 1 Currency Code 08 40 - USA C8 Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 C8 Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 C6 FB 00 00 00 00 00 00 00 C6 Card Issuer Action Code (Contactless) - 06 50 00 00 00 00 08 40 00 00 08 40 00 00 08 40 00 00 C6 Card Issuer Action Code (Contactless) - 00 00 00 00 00 00 08 40 00 00 08 40 00 00 00 08 40 00 00 C6 Card Issuer Action Code (Contactless) - 00 00 00 00 08 40 00 00 00 84 40 00 00 00 08 40 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	C5		06	FB	00									
C6 PIN Try Limit [M/Chip Advance] 09 C7 CDOL1 Related Data Length 42 [Mastercard] 08 40 - USA C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Cover Limit [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 06 50 0 CB Accumulator 1 Lower Contactless) - Default [M/Chip Advance] 06 50 0 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 06 40 00 00 08 40 00 00 08 40 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 0F FF FF FFF FF FF FF FF FF FF	03													
Go Init (in) Nutrice 42 C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 CB Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 06 FB 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 00	6		09											
Or Description [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code 08 40 - USA C9 Accumulator 1 Lower Limit [Mastercard] 00														
C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00	01													
C9 Accumulator 1 Currency Code [Mastercard] 08 40 USD CA Accumulator 1 Lower Limit [Mastercard] 00	C8		08	40	- U	SA								
[Mastercard] Image: constraint of the second s														
CA Áccumulator 1 Lower Limit [Mastercard] 00	00													
CB Accumulator 1 Upper Limit [Mastercard] 00	CA		00	00	00	00	00	00						
CD Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 50 00 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 0		· · · · ·	00	00	00	00	00	00						
Default [M/Chip Advance] 06 FB 00 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 0			06	50	00									
CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 06 FB 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 0		· · · · · · · · · · · · · · · · · · ·												
Online [M/Chip Advance] 00	CE		06	FB	00									
CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00	-													
Decline [M/Chip Advance] D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 00 08 40 00 00 00 08 40 00 00 00 00 08 40 00 00 00 08 40 00 D3 Additional Check Table [Mastercard] 00 00 00 0F FF FF FF FF FF FF FF FF FF F	CF		00	00	00									
Table [Mastercard] 00 0														
14ble [MasterCard] 00 D3 Additional Check Table [Mastercard] 00<	D1	Accumulator 1 Currency Conversion												
D3 Additional Check Table [Mastercard] 00 00 00 00 07 FF		Table [Mastercard]		00	00	08	40	00	00	00	08	40	00	00
Image: Control of the second of the	DO			00	0.0									
D5 Application Control [M/Chip Advance] 80 00 80 00 C6 02 D6 Default ARPC Response Code [M/Chip Advance] 00 10 00 10 D7 Application Control [M/Chip Advance] 80 00 80 00 60 02 D9 Application File Locator (Contactless) 08 01 01 00 0	D3	Additional Check Table [Mastercard]							F F	<u> </u>	F F	<u> </u>	<u> </u>	
D6 Default ARPC Response Code [M/Chip Advance] 00 10 D7 Application Control [M/Chip Advance] 80 00 80 01 01 00	D5	Application Control [M/Chip Advance]												
Advance] 80 00 80 00 80 00 80 03 03 00 D9 Application File Locator (Contactless) 08 01 01 00			00	10										
D9 Application File Locator (Contactless) 08 01 01 00 08 03 03 00 DE Log Data Table [M/Chip Advance] 00 <td< td=""><td>_</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	_													
D9 Application File Locator (Contactless) 08 01 01 00 08 03 03 00 DE Log Data Table [M/Chip Advance] 00 <td< td=""><td>D7</td><td>Application Control [M/Chip Advance]</td><td>80</td><td>00</td><td>80</td><td>00</td><td>C6</td><td>02</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	D7	Application Control [M/Chip Advance]	80	00	80	00	C6	02						
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 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 00 <td>D9</td> <td></td> <td>08</td> <td>01</td> <td>01</td> <td>00</td> <td>08</td> <td>03</td> <td>03</td> <td>00</td> <td></td> <td></td> <td></td> <td></td>	D9		08	01	01	00	08	03	03	00				
Advance] C1 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 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 00 00 00 09 99 00	DE	Log Data Table [M/Chip Advance]	00	00	00	00	00	00	00	00	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 Control (Contactless) [M/Chip Advance] 00 DF 17 Accumulator 2 Currency Code [Mastercard] 09 99 00	DF 02	Security Limits Status (Contact) [M/Chip	00											
[M/Chip Advance]DF 12Accumulator 1 Control (Contactless) [M/Chip Advance]C1DF 14Accumulator 2 Control (Contact) [M/Chip Advance]00DF 15Accumulator 2 Control (Contactless) [M/Chip Advance]00DF 16Accumulator 2 Currency Code [Mastercard]09DF 17Accumulator 2 Currency Conversion Table [Mastercard]09DF 18Accumulator 2 Lower Limit [Mastercard]00DF 19Accumulator 2 Upper Limit [Mastercard]00DF 14Counter 1 Control (Contact) [M/Chip Advance]01DF 18Counter 1 Control (Contactless) [M/Chip Advance]01DF 19Counter 1 Control (Contactless) [M/Chip Advance]01DF 10Counter 2 Control (Contact) [M/Chip Advance]01		Advance]												
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 99 00 <t< td=""><td>DF 11</td><td>Accumulator 1 Control (Contact)</td><td>C1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	DF 11	Accumulator 1 Control (Contact)	C1											
[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 Table [Mastercard] 09 99 00 0		[M/Chip Advance]												
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 99 00 <t< td=""><td>DF 12</td><td></td><td>C1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	DF 12		C1											
[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 99 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 99 00 00 00 00 00 00 09 99 00	DF 14		00											
DF 10 //Ocumulator 2 Control (Contractices) 09 99 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 00 00 09 99 00 00 09 99 00 00 00 09 99 00 00 00 00 00 09 99 00														
DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 00 09 99 00 00 09 99 00 00 09 99 00 00 00 09 99 00	DF 15		00											
[Mastercard] [Mastercard] 09 99 00 00 09 99 00 00 09 99 00 00 00 09 99 00 <														
DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 00 09 99 00	DF 16		09	99										
Table [Mastercard] 00 00 00 00 09 99 00 00 00 09 99 00 00 0			00	00	00	00	00	00	00	00	00	00	00	00
DF 18 Accumulator 2 Lower Limit [Mastercard] 00	UF 17													
DF 18 Accumulator 2 Lower Limit [Mastercard] 00 </td <td></td>														
DF 19 Accumulator 2 Upper Limit [Mastercard] 00 00 00 00 00 00 DF 1A Counter 1 Control (Contact) [M/Chip C1 Advance] C1 DF 1B Counter 1 Control (Contactless) [M/Chip C1 Advance] C1 DF 1D Counter 2 Control (Contact) [M/Chip 00	DF 18	Accumulator 2 Lower Limit [Mastercard]			00	00	00	00						
DF 1A Counter 1 Control (Contact) [M/Chip C1 Advance] C1 DF 1B Counter 1 Control (Contactless) [M/Chip C1 Advance] C1 DF 1D Counter 2 Control (Contact) [M/Chip 00			00	00	00	00	00	00						
Advance] C1 DF 1B Counter 1 Control (Contactless) [M/Chip Advance] C1 DF 1D Counter 2 Control (Contact) [M/Chip 00			C1											
DF 1B Counter 1 Control (Contactless) [M/Chip Advance] C1 DF 1D Counter 2 Control (Contact) [M/Chip 00		· / - ·												
Advance] DF 1D Counter 2 Control (Contact) [M/Chip	DF 1B		C1		-									
		, , , , , , , , , , , , , , , , , , ,												
Advance]	DF 1D		00											
		Advance]												

B2》

Tag	Element name	Data Card v5.x
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	
DEAL	Advance]	08 40
DF 24	MTA Currency Code [M/Chip Advance]	00 00 00 00 00 00
DF 25	MTA NoCVM (Contact) [M/Chip 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]	
L		

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 Element name Data O 42 Issuer Identification Number (IIN) 67 99 99 67 99 99 50 Application Label 4D 41 45 53 54 52 4F 20 20 2 20 20 20 - 'MAESTRO' 57 Track 2 Equivalent Data 67 99 99 89 00 00 02 00 05 1 22 01 48 35 94 90 0F 5A Application Primary Account Number 67 99 99 89 00 00 02 00 05 1	
50 Application Label 4D 41 45 53 54 52 4F 20 20 2 50 Application Label 4D 41 45 53 54 52 4F 20 20 20 20 20 - 'MAESTRO' 57 Track 2 Equivalent Data 67 99 99 89 00 00 02 00 05 1 22 01 48 35 94 90 0F	
20 20 20 20 - 'MAESTRO' 57 Track 2 Equivalent Data 67 99 99 89 00 00 02 00 05 1 22 01 48 35 94 90 0F	D 25 12
22 01 48 35 94 90 0F	D 25 12
22 01 48 35 94 90 OF	
5A Application Primary Account Number 67 99 99 89 00 00 02 00 05 1	
(PÁN)	F
5F 20 Cardholder Name 55 53 41 20 44 65 62 69 74 2	
73 74 20 43 61 72 64 20 31 3	1 20 20
20 20 - 'USA DEBIT/Test Card 11' 5E 24 Application Expiration Date 25 12 31	
5F 25 Application Effective Date 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	ed
b3 - Issuer authentication NOT suppor	
External Auth command	
b2 - On device Cardholder verification	NOT
supported	
b1 - Combined DDA / GEN AC NOT s	upported
BYTE 2:	
b8 - EMV mode NOT supported 84 Dedicated File (DF) Name A0 00 00 00 04 30 60	
87 Application Priority Indicator 03	
87 Application Fronty indicator 03 8C Card Risk Management Data Object List 9F 02 06 9F 03 06 9F 1A 02 9	5 05 5F
1 (CDOL1)	
9F 45 02 9F 4C 08 9F 34 03 9	
9F 7C 14	
8D Card Risk Management Data Object List 91 0A 8A 02 95 05 9F 37 04 9	F 4C 08
2 (CDOL2)	
8E Cardholder Verification Method (CVM) 00 00 00 00 00 00 00 02 0	5 41 03
List 02 03 00 00 00	
94 Application File Locator (AFL) 08 01 02 00	

Tag	Element name	Data Card v5.x
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals 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 10 xx
00	Advancel	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
		4D 61 65 73 74 72 6F 20 20 20 20 20
9F 12	Application Preferred Name	20 20 20 - 'Maestro'
		00
9F 14	Counter 1 Lower Limit [Mastercard]	
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	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
		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) -	06 00 00
04	Default [M/Chip Advance]	
CF.		3F FB 00
C5	Card Issuer Action Code (Contact) -	SF 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
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]	06 55 00
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			_			_				rd v	
D1	Accumulator 1 Currency Conversion					00							
	Table [Mastercard]	00	00	00	80	40	00	00	00	08	40	00	00
D2	Additional Chack Table [Mastercard]		00	00	नन	FF	ਸਾਸ	ਸਾਸ	नन	ਸ਼ਾਸ	ਸਾਸ	ਸਾਸ	ਸ਼ਾਸ
D3	Additional Check Table [Mastercard]					FF					E E		
D5	Application Control [M/Chip Advance]					C6							
D6	Default ARPC Response Code [M/Chip	00											
20	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			
DF 02	Security Limits Status (Contact) [M/Chip	00											
D1 02	Advance]												
DF 11	Accumulator 1 Control (Contact)	C1											
0, 1,	[M/Chip Advance]												
DF 12	Accumulator 1 Control (Contactless)	C1											
22	[M/Chip Advance]												
DF 14	Accumulator 2 Control (Contact)	00											
2	[M/Chip Advance]												
DF 15	Accumulator 2 Control (Contactless)	00											
21 10	[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	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]												
DF 1E	Counter 2 Control (Contactless) [M/Chip	00											
	Advance]												
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	00	00	00	00	00	00						
DF 04	Advance]	00	40										
DF 24	MTA Currency Code [M/Chip Advance]	08		~~	~~	~~~	~~						
DF 25	MTA NoCVM (Contact) [M/Chip	00	00	00	00	00	00						
	Advance]	00	00	00	00	00	00						
DF 26	MTA NoCVM (Contactless) [M/Chip	00	00	00	00	00	00						
	Advance]	00	00										
DF 27	Number Of Days Offline Limit [M/Chip	00	00										
	Advance]	00	00	00									
DF 28	Accumulator 1 CVR Dependency Data	00	00	00									
	(Contact) [M/Chip Advance]	00	00	00									
DF 29	Accumulator 1 CVR Dependency Data		00	00									
	(Contactless) [M/Chip Advance]	00	00	00									
DF 2A	Accumulator 2 CVR Dependency Data	00	00	00									
	(Contact) [M/Chip Advance]	00	00	00									
DF 2B	Accumulator 2 CVR Dependency Data		50	50									
	(Contactless) [M/Chip Advance]	00	00	00									
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]		00	00									

Tag	Element name	Data	Card v5.x
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]		

4.11.7 Contact: CVM List - U.S. Savings debit, AID A00000004220302

Cardho	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	Element name	Data Card v4.x
42	Issuer Identification Number (IIN)	67 99 99
50	Application Label	55 53 20 53 41 56 49 4E 47 53 20 20 20 20 20 - 'US SAVINGS'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 00 05 1D 25 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 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	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 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 b1 - Start and uthenication NOT Supported via External Auth command b2 - On device Cardholder verification NOT supported b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported 84 Dedicated File (DF) Name A0 00 00 00 04 22 03 02 87 Application Privoly Indicator 04 8C Card Risk Management Data Object List 9F 02 06 9F 03 06 9F 1A 02 95 05 9F 24 03 9F 26 08 9F 37 04 9F 4C 08 8D Card Risk Management Data Object List 1F 03 00 00 00 00 00 00 00 00 02 05 42 03 9F 07 Application File Locator (AFL) 08 01 01 00 08 03 03 00 9F 07 Application Usage Control FF c0 BYTE 1: b8 - Domestic cash trans. valid b5 - International goods valid b4 - Domestic cash trans. valid b7 - International goods valid b5 - International goods valid b4 - Domestic cashback allowed b7 - International goods valid b5 - International goods valid b5 - International goods valid b5 - International goods valid b7 - Inte			
BYTE 1: b7-offline SDA NOT supported b7-offline SDA NOT supported b6-offline SDA NOT supported b5-Cardholder verification supported b5-Cardholder verification NOT supported b5-Supported b7-Offline SDA NOT supported b7-Offline SDA NOT supported b7-Offline SDA NOT Supported <td< td=""><td></td><td>Element name</td><td>Data Card v4.x</td></td<>		Element name	Data Card v4.x
b7 - Offine SDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgm to be performed b5 - Issuer Authentication NOT supported b4 - Terminal risk mgm to be performed b5 - Suser authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported BYTE 2: b9 - 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 43 03 9F 23 01 9F 76 14 BYTE 2: b8 - Card Risk Management Data Object List 2 (CDOL2) 8D Card Risk Management Data Object List 2 (CDOL2) 9F 00 00 00 00 00 00 00 00 00 02 05 42 03 9F 76 14 BYTE 1: b8 - Domestic cash trans. valid b7 - Inft cash trans. valid b5 - International goods valid b4 - Domestic cash trans. valid b5 - International goods valid b3 - Inte	82	Application Interchange Profile	
b6 - Offline DDA NOT supported b5 - Cardholder verification NOT supported b4 - Terminal risk mgm to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported b2 - Card Risk Management Data Object List 1 (CDOL1) b2 - Card Risk Management Data Object List 2 (CODL2) B2 Card Risk Management Data Object List 2 (CDOL2) B2 Card Risk Management Data Object List 2 (CDOL2) B2 Card Risk Management Data Object List 1 F 03 00 00 00 00 00 00 00 00 00 00 00 00			
bb Cardholder verification supported b4 Terminal risk mgmt to be performed b3 Issuer authentication NOT supported via External Auth command b2 On device Cardholder verification NOT supported b1 Combined DDA / GEN AC NOT supported B4 Dedicated File (DF) Name A0 00 00 04 22 03 02 87 Application Priority Indicator 04 04 287 03 05 9F 20 06 9F 03 04 9F 02 03 9F 21 03 9F 7C 14 9F 02 05 9F 31 04 9F 32 03 9F 21 03 9F 21 03 9F 7C 14 9F 02 06 00			
b4 Terminal risk mgmt to be performed b3 b4 b2 On device Cardholder verification NOT supported b1 Cardholder verification NOT supported b1 84 Dedicated File (DF) Name Card Risk Management Data Object List 1 (CDOL1) 04 00 00 04 20 30 25 55 55 1 (CDOL1) 9F 02 06 9F 102 06 9F 102 9F 02 93 03 9F 102 9F 02 95 05 55 10 9F 02 9F 03 03 00 00 00 00 00 00 00 00 00 00 00 00 00 00 <td></td> <td></td> <td></td>			
b3 - Issuer authentication NOT supported via External Auth command b2 - On device Cardholder verification NOT supported 84 Dedicated File (DF) Name A0 00 00 00 00 42 20 3 02 87 Application Priority Indicator 04 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 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 9F 05 05 9F 37 04 9F 4C 08 2 (CDOL2) 8E Cardholder Verification Method (CVM) 1F 03 00 00 00 00 00 00 00 00 00 00 00 00			
Bit State External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported B4 Dedicated File (DF) Name A0 00 00 00 04 20 00 B7 Application Priority Indicator 04 00 00 04 20 02 05 9F B8 Card Risk Management Data Object List 9F 02 06 9F 1A 02 95 05 9F 31 04 9F 35 03 9F 7C 14 9F 02 05 9F 34 03 9F 10 38 02 9F 07 14 9F 00			
bc c-On device Cardholder verification NOT supported brupported 84 Dedicated File (DF) Name A0 00 00 00 04 22 03 02 87 Application Priority Indicator 04 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 9F 50 5F 37 04 9F 4C 08 2 (CDOL2) 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 94 Application File Locator (AFL) 08 01 01 00 08 03 03 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b6 - Domestic goods valid b6 - Domestic services valid b2 - ATMs valid b1 - non-ATM terminals eavides valid b2 - ATMs valid b7 - International goods valid b2 - ATMs valid b7 - International services valid b3 - International services valid b3 - International services valid b3 - International services valid b3 - International cashback allowed b7 -			
Bit - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported B4 Dedicated File (DF) Name A0 00 00 00 02 22 03 02 B7 Application Priority Indicator BC Card Risk Management Data Object List 1 (CDOL1) SP 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 14 BD Card Risk Management Data Object List 2 (CDOL2) BE Cardholder Verification Method (CVM) List 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 2 (CDOL2) 06 01 01 00 08 03 03 00 9F 07 Application File Locator (AFL) 9F 07 Application Usage Control 9F 7C By 7E 1: b8 - Obmestic cash trans. valid b7 - International services valid b3 - International services valid b4 - Domestic cashback allowed b7 - International services valid b5 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Obmestic cashback allowed b7 - International cashback al			
b1 Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported 84 Dedicated File (DF) Name A0 00 00 04 22 03 02 87 Application Priority Indicator 04 97 02 06 9F 03 06 9F 10 29 03 92 03 97 04 9F 30 9F 72 03 9F 72 04 9F 30 9F 72 04 9F 20 93 03 9F 72 03 9F 70 9F 70 9F 70 14 9F 70 9F 70 Application File Locator (AFL) 96 01 10 00 00 00 00 00 00 00 70 70 <t< td=""><td></td><td></td><td></td></t<>			
b8 EMV mode NOT supported 84 Dedicated File (DF) Name A0 00 00 00 42 2 03 002 87 Application Priority Indicator 04 8C Card Risk Management Data Object List 1 (CDOL1) 9F 02 06 9F 03 06 9F 1A 02 95 05 9F 2A 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 8D Card Risk Management Data Object List 2 (CDOL2) 9F 02 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 00 00 00 00 02 05 42 03 8E Cardholder Verification Method (CVM) List 08 01 01 00 08 03 03 00 9F 7C 14 9F 07 Application File Locator (AFL) 08 01 01 00 08 03 03 00 9F 7C 00 00 00 00 00 00 94 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b5 - International goods valid b4 - Domestic services valid b2 - ATMS valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - 10 Issuer Action Code - Denial 00 00 00 00 00 00 00 9F 0F Issuer Action			
B4 Dedicated File (DF) Name A0 00 00 00 02 02 03 87 Application Prointy Indicator 04 04 04 04 05 05 55 8C Card Risk Management Data Object List 9F 02 06 9F 03 06 9F 1A 02 95 05 9F 20 03 9C 01 9F 42 03 9F 21 03 9F 21 03 9F 21 03 9F 42 03 04 9F 42 03 04 <			BYTE 2:
87 Application Priority Indicator 04 8C Card Risk Management Data Object List 1 (CDOL1) 9F 02 06 9F 03 06 9F 14 02 95 05 5F 2D Card Risk Management Data Object List 2 (CDOL2) 91 08 02 95 05 9F 37 04 9F 42 03 8D Cardholder Verification Method (CVM) List 01 00			b8 - EMV mode NOT supported
97 Card Risk Management Data Object List 1 (CDOL1) 97 02 06 97 03 06 97 70 97 70 97 55 55 2A 02 9A 03 92 01 97 70 97 70 97 71 4 97 35 01 9F 7C 14 97 70 4 97 20 97 70 4 97 21 03 97 71 04 97 4 97 20 97 71 4 97 20 97 71 4 97 20 97 71 4 97 4 <td< td=""><td>84</td><td>Dedicated File (DF) Name</td><td></td></td<>	84	Dedicated File (DF) Name	
1 (CDOL1) 22.02 9A 0.3 9C 0.1 9F 37 04 9F 35 0.1 9F 37 04 9F 35 0.1 9F 77 04 9F 35 0.1 9F 77 04 9F 35 0.1 9F 77 04 9F 45 0.2 9F 72 1.0 3 9F 77 0.4 9F 42 0.3 9F 72 1.0 3 9F 77 0.4 9F 42 0.8 2 (CDOL2) 8E Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 42 0.8 2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0			04
9F 45 02 9F 4C 08 9F 34 03 9F 21 03 8D Card Risk Management Data Object List 2 (CDOL2) 8E Cardholder Verification Method (CVM) List 91 00 00 00 00 00 00 00 00 00 02 05 42 03 94 Application File Locator (AFL) 96 01 01 00 08 03 03 00 97 07 Application Usage Control 97 07 97 08 97 09 97 09 97 00 97 00 98 00 97 01 98 02 98 03 99 00 99 01 90 01 99 02 99 02 99 03 99 04 99 04 90 99 03 99 04 99 04 99 05 99 04 99 04 99 05 </td <td>8C</td> <td>Card Risk Management Data Object List</td> <td>9F 02 06 9F 03 06 9F 1A 02 95 05 5F</td>	8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
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 00 00 00 94 Application File Locator (AFL) 08 01 01 00 08 03 03 00 97 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b6 - Domestic goods valid b6 - Domestic goods valid b6 - Domestic goods valid b1 - non-ATM terminals valid b1 - non-ATM terminals valid b1 - non-ATM terminals valid b2 - ATMs valid b1 - non-ATM terminals valid b7 - International cashback allowed b7 - Internation Data [M/Chip F 2 - 10 9F 02 06 56 F 2 A 02 9A 03 9F		1 (CDOL1)	
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 02 05 42 03 1F 03 00 00 00 00 94 Application File Locator (AFL) 08 01 01 00 08 03 03 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b6 - Domestic gods valid b5 - International goods valid b3 - International services valid b3 - International services valid b3 - International services valid b4 - Domestic cashback allowed b7 - Int'l cash transactions called b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Internation Data [M/Chip xx xx			
Solution Solution Solution Solution Solution 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 00 00	00	Cord Rick Management Data Object List	
8E Cardholder Verification Method (CVM) List 00 01 10 11 </td <td>80</td> <td></td> <td>91 UN UN UZ 95 US 9F 57 UN 9F 4C UU</td>	80		91 UN UN UZ 95 US 9F 57 UN 9F 4C UU
List1F0300000094Application File Locator (AFL)08010100080303009F07Application Usage ControlFFCOBYTE 1: b8 - Domestic cash trans. valid b6 - Domestic gods valid b5 - Int" Leash transactions valid b6 - Domestic gods valid b5 - International goods valid b5 - International services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Interna	0E		
94 Application File Locator (AFL) 08 01 01 00 08 03 03 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 Domestic cash trans. valid b6 Domestic cash valid b3 International goods valid b5 International services valid b3 Domestic cashback allowed b5 International services valid b3 International services valid b3 Di vas	o⊏		
9F 07 Application Usage Control FF c0 BY 07 Application Usage Control FF c0 BYTE 1: b8 - Domestic cash trans. valid b7 - Intl cash transactions valid b6 - Domestic goods valid b6 - Domestic services valid b3 - International goods valid b7 - Intl cash transactions valid b3 - International goods valid b8 - Domestic services valid b3 - International services valid b1 - non-ATM terminals valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed 9F 0D Issuer Action Code - Default B0 50 9C 88 00 9F 10 Issuer Action Code - Online B0 70 9C 98 00 9F 11 Issuer Application Data [M/Chip xx 10 xx xx xx xx xx x xx xx xx xx xx xx xx	04		
BYTE 1: b8 - Domestic cash trans. valid b7 - Int? cash trans.valid b7 - Int? cash trans.valid b6 - Domestic goods valid b5 - International goods valid b7 - Int? cash trans.valid b7 - International goods valid b1 - non-ATM terminals valid b2 - ATMs valid b2 - ATMs valid b1 - non-ATM terminals valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 0E Issuer Action Code - Default B0 50 9C 88 00 9F 0D 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 10 xx	-		
b8 Domestic cash trans. valid b7 Int'l cash transactions valid b6 Domestic goods valid b5 International goods valid b5 International services valid b2 Application Version Number 9F 08 Application Version Number 00 9F 08 Application Version Number 00 9F 08 Application Version Number 00 09 02 9F 9F 9F 08 Application Code - Default B0 90 02 9F 01 108 15 9F 02 9F 04 9F 05 9F 06 9F 07 9F 08 9F 1 1 Issuer Action Code - Online 80 70 9C 9F 10 Issuer Action Code - Online 80 70 9C 9F 11 <td>9F 07</td> <td>Application Usage Control</td> <td></td>	9F 07	Application Usage Control	
b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b5 - International services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed			
b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed9F 08Application Version Number00 029F 00Issuer Action Code - DefaultB0 50 9C 88 009F 01Issuer Action Code - DefaultB0 50 9C 88 009F 02Issuer Action Code - Denial00 00 00 00 009F 05Issuer Action Code - OnlineB0 70 9C 98 009F 10Issuer Application Data [M/Chip xx xx			
b4 - Domestic services valid b3 - International services valid b2 - ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed co - 00 00 00 00 00 00 00 00 0 00 00 00 00 00 00 00 00 00 00 0 00 00 00 00 00 00 00 00 00 0 00 00 00 00 00 00 00 00 00 00 00 0 00 00 00 00 00 00 00 00 00 00 00 00 0			b6 - Domestic goods valid
b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International fully b7 - International fully b7 - International fully b7 -			
b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed9F 08Application Version Number00029F 0DIssuer Action Code - DefaultB0509C88009F 0EIssuer Action Code - Denial00000000009F 0FIssuer Action Code - OnlineB0709C98009F 10Issuer Action Code - OnlineB0709C98009F 11Issuer Application Data [M/Chip Advance]xx 10xx xx xxxx9F 11Issuer Code Table Index019F 12Application Preferred Name55532053617696E677320 </td <td></td> <td></td> <td></td>			
b1 - non-ATM terminals 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 Application Data [M/Chip Advance]xx 10 xx			
BYTE 2: b8 - Domestic 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 10 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]xx10xx xx xxxx9F 11Issuer Code Table Index019F 12Application Preferred Name555320536176696E6773202020202020- 'US Savings'999714Counter 1 Lower Limit [Mastercard]009F 17Personal Identification Number (PIN) Try Counter0099777<			
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/Chipxx 10 xx			
9F 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/Chipxx 10 xx			
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 10 xx	9F 08	Application Version Number	
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 10 xx			B0 50 9C 88 00
9F 0FIssuer Action Code - OnlineB0709C98009F 10Issuer Application Data [M/Chip Advance]xx10xxx			00 00 00 00 00
9F 10Issuer Application Data [M/Chip Advance]xx 10xx xx			во 70 9С 98 00
Advance]xx			xx 10 xx
9F 11 Issuer Code Table Index 01 9F 12 Application Preferred Name 55 53 20 53 61 76 69 6E 67 73 20 20 20 20 20 20 - 'US Savings' 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 9F 27 Cryptogram Information Data (CID) 80 9F 42 Application Currency Code 08 40 - USD 9F 4D Transaction Log Entry 08 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F			xx xx xx xx xx xx *
9F 12Application Preferred Name555320536176696E6773202020202020- 'US Savings'9F 14Counter 1 Lower Limit [Mastercard]009F 17Personal Identification Number (PIN) Try Counter099F 23Counter 1 Upper Limit [Mastercard]009F 26Application Cryptogram (AC)xxxxxxxxxxxx9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xxxxxxx9F 42Application Currency Code0840- USD9F 4DTransaction Log Entry0B0A9F27019F02065F2A029A039F9F 4FTransaction Log Format9F27019F02065F2A029A039F	9F 11		01
20202020- 'US Savings'9F 14Counter 1 Lower Limit [Mastercard]009F 17Personal Identification Number (PIN) Try Counter099F 23Counter 1 Upper Limit [Mastercard]009F 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 42Application Currency Code08 40 - USD9F 4DTransaction Log Entry0B 0A9F 4FTransaction Log Format9F 27 01 9F 02 06 5F 2A 02 9A 03 9F			55 53 20 53 61 76 69 6E 67 73 20 20
9F 14Counter 1 Lower Limit [Mastercard]009F 17Personal Identification Number (PIN) Try Counter099F 23Counter 1 Upper Limit [Mastercard]009F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx xx xx9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xx xx xx xx9F 42Application Currency Code08 40 - USD9F 4DTransaction Log Entry0B 0A9F 4FTransaction Log Format9F 27 01 9F 02 06 5F 2A 02 9A 03 9F			
9F 17Personal Identification Number (PIN) Try Counter099F 23Counter 1 Upper Limit [Mastercard]009F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx xx xx9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xx xx xx xx9F 42Application Currency Code08 40 - USD9F 4DTransaction Log Entry0B 0A9F 4FTransaction Log Format9F 27 01 9F 02 06 5F 2A 02 9A 03 9F	9F 14	Counter 1 Lower Limit [Mastercard]	Ŧ
Try Counter9F 23Counter 1 Upper Limit [Mastercard]009F 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 42Application Currency Code08 40 - USD9F 4DTransaction Log Entry0B 0A9F 4FTransaction Log Format9F 27 01 9F 02 06 5F 2A 02 9A 03 9F			09
9F 23Counter 1 Upper Limit [Mastercard]009F 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 42Application Currency Code08 40 - USD9F 4DTransaction Log Entry0B 0A9F 4FTransaction Log Format9F 27 01 9F 02 06 5F 2A 02 9A 03 9F			
9F 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 42Application Currency Code08 40 - USD9F 4DTransaction Log Entry0B 0A9F 4FTransaction Log Format9F 27 01 9F 02 06 5F 2A 02 9A 03 9F	9F 23		00
9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC) xx xx * 9F 42Application Currency Code08 40 - USD9F 4DTransaction Log Entry0B 0A9F 4FTransaction Log Format9F 27 01 9F 02 06 5F 2A 02 9A 03 9F			xx xx xx xx xx xx xx *
9F 36Application Transaction Counter (ATC)xx xx *9F 42Application Currency Code08 40 - USD9F 4DTransaction Log Entry0B 0A9F 4FTransaction Log Format9F 27 01 9F 02 06 5F 2A 02 9A 03 9F			80
9F 42Application Currency Code08 40 - USD9F 4DTransaction Log Entry0B 0A9F 4FTransaction Log Format9F 27 01 9F 02 06 5F 2A 02 9A 03 9F			xx xx *
9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F			08 40 - USD
9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F			
			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			7C 14

Tag	Element name	Da	ta								Са	rd ۱	/4.x
9F 7E	Application Life Cycle Data [Mastercard]	04	10			00					17	79	00
						04							
						00 00							
C3	Card Issuer Action Code (Contact) -		00		00	00	00	00	00	00	00	00	00
03	Decline [M/Chip Advance]		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									
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	- 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) -	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]												
D1	Accumulator 1 Currency Conversion					00							
	Table [Mastercard]	00	00	00	08	40	00	00	00	08	40	00	00
D3	Additional Check Table [Mastercard]		00	00	FF	FF	FF	FF	FF	FF	FF	FF	FF
20						FF							
D5	Application Control [M/Chip Advance]			80	00	C6	02						
D6	Default ARPC Response Code [M/Chip	00	10										
	Advance]												
D7	Application Control [M/Chip Advance]					C6							
D9	Application File Locator (Contactless)					08							
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											
55 / 6	[M/Chip Advance]	~1											
DF 12	Accumulator 1 Control (Contactless)	C1											
	[M/Chip Advance]	00											
DF 14	Accumulator 2 Control (Contact)	00											
	[M/Chip Advance]	00											
DF 15	Accumulator 2 Control (Contactless)												
DF 16	[M/Chip Advance] Accumulator 2 Currency Code	00	99										
	[Mastercard]												
DF 17	Accumulator 2 Currency Conversion	09	99	00	00	00	09	99	00	00	00	09	99
	Table [Mastercard]					99							
		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 Advance]	00											

B2 》

Tag	Element name	Data Card v4.x
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	
DEAL	Advance]	08 40
DF 24	MTA Currency Code [M/Chip Advance]	00 00 00 00 00 00
DF 25	MTA NoCVM (Contact) [M/Chip 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]	
L		

4.12 Test Card 12 - Discover, DI, 2-AID (U.S. Debit, Discover), Eng/Spa/Fre, 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	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	Element name	Data Card v6.x
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	55 53 20 44 45 42 49 54 20 20 20 20
00		20 20 20 20 - 'US DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 01 38 D2 60 52 01
		10 00 01 05 00 00 00
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 01 38
5F 20	Cardholder Name	55 41 54 20 44 45 42 49 54 2F 54 65
00		73 74 20 43 61 72 64 20 31 32 20 20
		20 20 - 'USA DEBIT/Test Card 12'
5F 24	Application Expiration Date	26 05 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,
	5 5	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	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 34 03
8D	Card Risk Management Data Object List	91 OA 8A 02 95 05 9F 37 04
	2 (CDOL2)	
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 01 00 10 01 01 00 18 01 01 00
9F 07	Application Usage Control	FF 00
9F 08	Application Version Number	00 01
9F 0D	Issuer Action Code - Default	B0 68 C4 E8 00
9F 0E	Issuer Action Code - Denial	00 10 00 00 00

Tag	Element name	Da	ta								Са	rd v	′6.x
9F 0F	Issuer Action Code - Online	в0	68	C4	F8	00							
9F 10	Issuer Application Data [DPAS]	xx	06	xx	xx	xx	xx	xx	xx	*			
9F 17	Personal Identification Number (PIN)	03											
	Try Counter												
9F 26	Application Cryptogram (AC)	xx	xx	хx	xx	xx	хx	xx	хx	*			
9F 27	Cryptogram Information Data (CID)	80											
9F 36	Application Transaction Counter (ATC)	xx	xx	*									
9F 38	Processing Options Data Object List	9F	02	06	9F	1A	02	5F	2A	02	9A	03	9F
	(PDOL)	35	01										
9F 4D	Transaction Log Entry	0в	0A										
9F 4F	Transaction Log Format	9F	02	06	5F	2A	02	9A	03	9F	36	02	9F
	5								02				
							9F	03	06	9F	53	08	9F
			04	9F	71	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
C3	Currency Conversion Codes 1 [DPAS]				01								
C4	Currency Conversion Codes 2 [DPAS]			00	01	00							
C5	Card Action Code - Denial [DPAS]		00										
C6	Card Action Code - Default [DPAS]		1F										
C7	Card Action Code - Online [DPAS]		1F										
D2	CRM Country Code [DPAS]		40										
D3	CRM Currency Code [DPAS]		40										
DF 11	PDOL Check Table - Profile (PDOLP) [DPAS]	01	09	41	00	00	41	A 0	11	FF	01	01	
DF 20	Transaction Profile Objects(TPO0)	00	18	00	08	01	01	00	10	01	01	00	18
_	[DPAS]	01	01	00	00	00	00	00	00	00	00	00	00
	L - J								00				-
									00				
				00	00	00	00	00	00	00	00	00	00
	Transaction Brafile Objects (TDOA)		00	00	00	01	01	00	10	01	01	00	10
DF 21	Transaction Profile Objects(TPO1)								00				
	[DPAS]								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				

B2 》

4.12.4	Contact: Application Tag data, AID Au	
Tag	Element name	Data Card v6.x
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 20 20 - 'DISCOVER DEBIT'
57	Track 2 Data [Discover]	49 54 20 20 - DISCOVER DEBIT
57	Track 2 Data [Discover]	10 00 01 05 00 00 00
5A	Application Primary Account Number	60 11 97 37 00 00 01 38
	(PAN)	
5F 20	Cardholder Name	55 41 54 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 31 32 20 20
55.04	Application Expiration Data	20 20 - 'USA DEBIT/Test Card 12' 26 05 31
5F 24 5F 25	Application Expiration Date Application Effective Date	xx xx xx *
5F 25 5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E 65 73 66 72 - 'enesfr' (English,
JF ZD	Language Freierence	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 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 30 10 02
87	Application Priority Indicator	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
8C	Card Risk Management Data Object List 1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 34 03
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04
	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 01 02 03
	List	42 03 1E 03 1F 03
94	Application File Locator (AFL)	08 01 01 00 10 01 01 00 18 02 02 00
9F 07	Application Usage Control	FF 00
9F 08	Application Version Number	00 01
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 xx *
9F 17	Personal Identification Number (PIN)	03
OF 26	Try Counter	xx xx xx xx xx xx xx *
9F 26	Application Cryptogram (AC)	80
9F 27 9F 36	Cryptogram Information Data (CID)	xx xx *
9F 36 9F 38	Application Transaction Counter (ATC) Processing Options Data Object List	9F 02 06 9F 1A 02 5F 2A 02 9A 03 9F
31 30	(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
		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 78	Application State [D-PAS]	01

4.12.4 Contact: Application Tag data, AID A0000001523010

Tag	Element name	Da									Ca	rd ۱	/6.x
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	0			00			00	00	00	00	00	00	00
C3	Currency Conversion Codes 1 [DPAS]		-		-								
C4	Currency Conversion Codes 2 [DPAS]			00	01	00							
C5	Card Action Code - Denial [DPAS]		00										
C6	Card Action Code - Default [DPAS]	2E	1F										
C7	Card Action Code - Online [DPAS]	FE	1F										
D2	CRM Country Code [DPAS]	08	40										
D3	CRM Currency Code [DPAS]	08	40										
DF 11	PDOL Check Table - Profile (PDOLP)	01	09	41	00	00	41	A 0	11	FF	01	01	
	[DPAS]												
DF 20	Transaction Profile Objects(TPO0)	00	18	00	08	01	01	00	10	01	01	00	18
	[DPAS]	01		00	•••		00	00		00	00	00	00
		00	•••	00	••	00	00	00	•••	00	00	00	
		00		1F		1F	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	01	00	18
	[DPAS]	02	02 00	00 00	00 00	00	00		00 00	00	00	00 00	
		00	•••	00 1F	00 2E	00 1F	00	00	00	00	00	00	00
				00			•••	00		00	00	00	•••
		00		00	00	00	00	00	00	00	00	00	00
		50	00										

4.12.5 CTLS: CVM List - Discover U.S. Debit, AID A0000001524010 (D-PAS EMV, Online)

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 CTLS: Application Tag data, AID A0000001524010 (D-PAS EMV, Online)

Tag	Element name	Data Card v6.x
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	55 53 20 44 45 42 49 54 20 20 20 20 20 20 20 20 20 20 20 - 'US DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 01 38 D2 60 52 01 10 00 01 05 00 00 00
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 01 38
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	26 05 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'

Ray Element limite Data Call OV6.x 82 Application Interchange Profile [DPAS 10 0 0 82 Application Interchange Profile [DPAS 10 0 0 82 Application Interchange Profile [DPAS 10 0 0 84 Dedicated File (DF) Name A 00 00 01 0 84 Dedicated File (DF) Name A 00 <th>Ter</th> <th></th> <th>Dete</th>	Ter		Dete
CL FYTE 1: CL] FYTE 1: by Office DDA NOT supported b5 - Office DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt NOT to be performed b3 - Issuer autometication NOT supported b4 - Terminal risk mgmt NOT to be performed b3 - Issuer autometication NOT supported b4 - Terminal risk mgmt NOT to be performed b5 - Cardholder Verification Method (CVM) List 84 Dedicated File (DF) Name A0 00 00 01 52 40 10 87 Application Priority Indicator 01 87 Application Priority Indicator 01 87 Application Priority Indicator 01 97 03 Application Usage Control FF 00 97 04 Application Data (DPAS CL] xx 15 xx xx xx xx xx xx xx xx * 97 26 Application Transaction Counter (ATC) xx xx xx xx xx xx xx xx * 97 38 Processing Options Data Object List (POOL) 97 60 0 6 57 20 0 5 97 0 1 97 0 4 97 40 Transaction Log Format 57 0 2 0 6 59 7 1 0 2 95 0 5 9 c 0 1 8 20 99 7 3 0 4 97 0 3 0 6 97 5 3 0 8 97 96 0 4 97 7 1 0 2 95 0 5 9 c 0 1 8 8 - 05 witch to other interface if unable to process online if CDA failed b6 - 0 by Tocess online if CDA failed b6 - 0 by Toces online if CDA failed b6 - 0 by Toces online if CDA failed b6 - 0 by Tocess online if CDA failed b6 - 0 by Tocess online if CDA failed b6 - 0 by Tocess online if CDA failed b6 - 0	Tag	Element name	Data Card v6.x
br-1 -07 - Offline SDA NOT supported br 0 Offline DDA / GEN AC NOT supported br 0 D / GEN AC NOT SUPPORTED CON Contactless Application Configuration Of 0 O O O O O O	82		
b6 0fline DDA NOT supported b4 5 b5 Cardholder verification Supported b4 Terminal risk mgmt NOT to be performed b3 b1 Corrollogical verification Supported via EXTERNAL AUTH command b1 Corrollogical DDA / GEN AC NOT supported verification Priority Indicator 84 Dedicated File (DF) Name Application Priority Indicator 01 87 Application Priority Indicator 01 86 Cardholder Verification Method (CVM) List 08 01 02 01 00 <t< td=""><td></td><td>CLJ</td><td></td></t<>		CLJ	
b5 - Cardholder verification supported b4 - Terminal risk mgmt NDT to be performed b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported via B7 Application Priority Indicator b1 Combined DDA / GEN AC NOT supported B7 Application Priority Indicator b1 Cardholder Verification Method (CVM) List 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported A of 00 00 01 52 40 10 87 Application Priority Indicator 01 88 Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 00 00			
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 86 Cardholder Verification Method (CVM) 00 00 00 00 00 00 00 00 00 00 00 00 00			
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) 00 00 00 00 00 00 00 00 00 00 00 00 00			
84 Dedicated File (DF) Name A0 0 00 01 52 40 10 87 Application Priority Indicator 01 87 Application Priority Indicator 01 94 Application Usage Control 97 00 96 07 Application Orsion Number 00 0 97 07 Application Orsion Number 00 0 97 08 Application Orsion Number 00 0 97 09 Application Torsion Number 00 0 97 01 Issuer Application Data (DPAS CL] xx 15 xx xx xx xx xx xx xx * 97 26 Application Transaction Counter (ATC) xx xx * 97 36 Application Transaction Counter (ATC) xx xx * 97 40 Transaction Log Entry 08 0 98 71 Card Processing Requirements [DPAS] 09 60 97 71 Card Processing Requirements [DPAS] 09 89 97 71 Card Processing Requirements [DPAS] 09 89 97 71 Card Processing Requirements [DPAS] 09 89 97 71 Card Processing Requirements [DPAS] 00 89 97 71 Card Processing NGT supported b4 - Do process online if Ca			
87 Application Priority Indicator 01 87 Application Priority Indicator 01 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 00 00	01	Dedicated File (DE) Name	
ST Application Tribuny location 00 <			
List List 94 Application File Locator (AFL) 08 01 02 00 18 01 01 00 9F 07 Application Usage Control FF 00 9F 08 Application Version Number 00 01 9F 07 Application Version Number 00 01 9F 10 Issuer Application Drata (DPAS CL] xx x xx 9F 26 Application Transaction Counter (ATC) xx 9F 38 Processing Options Data Object List 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 95 97 04 9F 4D Transaction Log Entry 9F 00 06 05 F 2A 02 9A 03 9F 36 02 9F 34 03 9F 36 02 9F 34 03 9F 50 08 9F 9F 71 Card Processing Requirements [DPAS] 90 8 9F 9F 71 Card Processing Requirements [DPAS] 90 89 9F 21 02 95 95 90 9F 30 88 9F 9F 71 Card Processing Requirements [DPAS] 90 89 9F 70 00 7 9F 30 80 9F 30 88 9F 9F 78 Application State [D-PAS] 91 97 00 00 97 40 40 80 10 10 0 9F 78 Application State [D-PAS] 01 9F 78 Application Configuration Onliguration Options (CL-ACO) 00 00 00 00 00 00 00 00 00 00 00 00 00	-		-
94 Application File Locator (AFL) 08 01 02 01 10 00 9F 07 Application Usage Control PF 00 01 00 01 9F 08 Application Cression Number 00 01 xx			
9F 07 Application Usage Control FF 00 9F 08 Application Version Number 00 01 9F 10 Issuer Application Data [DPAS CL] xx 15 xx 9F 26 Application Cryptogram (AC) xx 9F 27 Cryptogram Information Data (CD) 80 9F 36 Application Transaction Counter (ATC) xx xx x 9F 36 Application Insaction Counter (ATC) xx xx * 9F 36 Application Log Entry 08 0A 9F 47 Transaction Log Format 9F 20 06 5F 2A 02 9A 03 9F 36 02 9F 36 02 9F 36 02 9F 36 04 9F 71 02 9F 71 Card Processing Requirements [DPAS] 00 89 9F 71 Card Processing Requirements [DPAS] 00 89 9F 74 Card Processing Requirements [DPAS] 00 89 9F 78 Application State [D-PAS] 01 9F 78 Application State [D-PAS] 01 9F 78 Application State [D-PAS] 01 9F 78 Application Configuration 03 88 00 00 00 00 00 00 00 00 00 00 00 00 00 00	94		08 01 02 00 18 01 01 00
9F 08 Application Version Number 00 01 9F 10 Issuer Application Data [DPAS CL] xx xx<			FF 00
9F 10 Issuer Application Data [DPAS CL] xx			00 01
9F 26 Application Cryptogram (AC) xx			xx 15 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 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 02 06 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 36 02 9F 36 02 9F 36 04 9F 71 02 9F 71 Card Processing Requirements [DPAS] 00 89 9F 71 Card Processing Requirements [DPAS] 00 89 9F 78 Application State [D-PAS] 00 89 9F 78 Application State [D-PAS] 01 9F 78 Application Configuration Onfiguration Options (CL-ACO) 03 88 00 00 00 00 00 00 00 00 00 00 00 <td< td=""><td></td><td></td><td></td></td<>			
9F 36 Application Transaction Counter (ATC) xx xx * 9F 38 Processing Options Data Object List (PDOL) 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 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 66 04 9F 71 02 9F 71 Card Processing Requirements [DPAS] 08 98 BYTE 2 (Permanent Data): b8 - Do switch to other interface if unable to process online b7 - Do NOT decline/switch other interface if CDA failed b5 - Issuer Update Processing NOT supported b4 - Do process online if Card expired b3 - Do NOT decline if card expired b3 - Do NOT decline if card expired b4 - Do process online if card expired b4 - Do process online if CDA failed b5 - Issuer Update Processing NOT supported b4 - Do process online if card expired b3 - Do NOT decline if card expired b3 - Do NOT decline if card expired b4 - CVM Failback to 'No CVM allowed 9F 78 Application State [D-PAS] 01 87 82 02 00 00 94 04 08 01 01 00 C0 Contactless Application Configuration Options (CL-ACO) 00 00 00 00 00 00 00 00 00 00 00 00 00			
9F 38 Processing Options Data Object List (PDOL) 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9A 03 9C 01 9F 37 04 9F 4D Transaction Log Entry 0B 0A 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 1A 02 55 05 9C 01 8A 02 9F 37 04 9F 03 06 9F 53 08 9F 66 04 9F 71 02 9F 1A 02 95 35 08 9F 66 04 9F 71 02 9F 71 Card Processing Requirements [DPAS] 00 89 BYTE 2 (Permanent Data): b8 - Do switch to other interface if unable to process online 00 NT decline if card expired b5 - Do NOT process online if CDA failed b6 - Do NOT decline if card expired b3 - Do NOT decline if card expired b4 - Do process online if card expired b2 - CVM Failback to 'No CVM' allowed b1 - CVM Failback to 'No CVM' allowed			
(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 66 04 9F 71 02 9F 71 Card Processing Requirements [DPAS] 00 89 BYTE 2 (Permanent Data): b8 - Do switch to other interface if unable to process online b7 - Do NOT decline/switch other interface if CDA failed b6 - Do NOT decline/switch other interface if CDA failed b5 - Issuer Update Processing NOT supported b3 - Do NOT decline if card expired b3 - CVM Failback to Signature NOT allowed b1 - CVM Failback to Signature NOT allowed b1 - CVM Failback to iso 00 00 00 00 00 00 00 00 00 00 00 00 00			9F 66 04 9F 02 06 9F 03 06 9F 1A 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 9F 71 Card Processing Requirements [DPAS] 9B 02 06 89 9F 71 Card Processing Requirements [DPAS] BYTE 2 (Permanent Data): b8 - Do switch to other interface if unable to process online 9F 71 Card Processing Requirements [DPAS] BYTE 2 (Permanent Data): b8 - Do switch to other interface if unable to process online 9F 78 Application State [D-PAS] 01 9F 78 Application State [D-PAS] 01 8F 51 Contactless D-PAS MS and ZIP Default Profile 82 02 00 00 94 04 08 01 01 00 C2 Issuer Life Cycle Data (ILCD) [DPAS] 00 00 00 00 00 00 00 00 00 00 00 00 00			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 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 71 Card Processing Requirements [DPAS] 00 89 BYTE 2 (Permanent Data): b8 - Do switch to other interface if unable to process online b7 - Do NOT process online if CDA failed b6 - Do NOT decline/switch other interface if CDA failed b5 - Issuer Update Processing NOT supported b4 - Do process online if card expired b3 - Do NOT decline if card expired b4 - Do process online if card expired b3 - Do NOT decline if card expired b3 - DO NOT allowed b1 - CVM Failback to No CVM allowed b1 - CVM Failback to No CVM allowed b1 - CVM Failback to 00 00 00 00 00 00 00 00 00 00 00 00 00 00	9F 4D		0B 0A
34 03 9F 52 06 9F 1A 02 95 05 9C 01 8A 02 9F 37 04 9F 03 06 9F 53 08 9F 60 44 9F 71 02 9F 71 Card Processing Requirements [DPAS] 9F 71 00 89 BYTE 2 (Permanent Data): b8 - Do switch to other interface if unable to process online b7 - Do NOT process online if CDA failed b6 - Do NOT decline/switch other interface if CDA failed b5 - Issuer Update Processing NOT supported b4 - Do process online if card expired b3 - Do NOT decline if card expired b3 - Do NOT decline if card expired b1 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to No CVM' allowed 9F 78 Application State [D-PAS] 01 82 02 00 00 94 04 08 01 01 00 03 88 CO Contactless Application Configuration Options (CL-ACO) 03 08 00 00 00 00 00 00 00 00 00 00 00 00			9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
9F 71 Card Processing Requirements [DPAS] 00 89 BYTE 2 (Permanent Data): b8 - Do switch to other interface if unable to process online b7 - Do NOT process online if CDA failed b6 - Do NOT decline/switch other interface if CDA failed b5 - Issuer Update Processing NOT supported b4 - Do process online if card expired b3 - Do NOT decline/switch other interface if CDA failed b5 - Issuer Update Processing NOT supported b4 - Do process online if card expired b3 - Do NOT decline/switch other interface if D8F 78 Application State [D-PAS] 01 BF 51 Contactless D-PAS MS and ZIP Default 82 02 00 00 94 04 08 01 01 00 Profile 01 82 02 00 00 00 00 00 00 00 00 00 00 00 00		5	
9F 71 Card Processing Requirements [DPAS] 00 89 BYTE 2 (Permanent Data): b8 - Do switch to other interface if unable to process online b7 - Do NOT process online if CDA failed b6 - Do NOT decline/switch other interface if CDA failed b5 - Issuer Update Processing NOT supported b4 - Do process online if card expired b3 - Do NOT decline/switch other interface if CDA failed b5 - Issuer Update Processing NOT supported b4 - Do process online if card expired b2 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to No CVM allowed 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			
BYTE 2 (Permanent Data): bit 11 bottom (Decision of the process online interface if unable to process online interface if unable to process online b7 - Do NOT process online if CDA failed b6 - Do NOT decline/switch other interface if CDA failed b5 - Issuer Update Processing NOT supported b3 - Do NOT decline if card expired b3 - Do NOT decline if card expired b2 - CVM Fallback to 'No CVM' allowed 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		Cond Dressesing Deguiners and (DDAQ)	
b8 - Do switch to other interface if unable to process online b8 - Do NOT process online b7 - Do NOT decline/switch other interface if CDA failed b5 - Issuer Update Processing NOT supported b4 - Do process online if card expired b2 - OVM Fallback to Signature NOT allowed b7 - Bo process online if card expired b2 - CVM Fallback to Signature NOT allowed b7 - Issuer Update Processing NOT supported b3 - Do NOT decline if card expired b2 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to Signature NOT allowed b7 - Issuer Life Cycle DAS 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	9671	Card Processing Requirements [DPA5]	
Process online b7 - Do NOT process online if CDA failed b6 - Do NOT decline/switch other interface if CDA failed b5 - Issuer Update Processing NOT supported b4 - Do process online if card expired b3 - Do NOT decline if card expired b3 - Do NOT decline if card expired b2 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to Signature NOT allowed 9F 78 Application State [D-PAS] 01 BF 51 Contactless D-PAS MS and ZIP Default 82 02 00 00 94 04 08 01 01 00 Profile 01 01 C0 Contactless Application Configuration 03 88 Options (CL-ACO) 00 00 00 00 00 00 00 00 00 00 00 00 00			
b6 - Do NOT decline/switch other interface if CDA failed CDA failed b5 - Issuer Update Processing NOT supported b4 - Do process online if card expired b2 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to 'No CVM' allowed 9F 78 Application State [D-PAS] 01 BF 51 Contactless D-PAS MS and ZIP Default Profile 82 02 00 09 94 04 08 01 01 00 C0 Contactless Application Configuration Options (CL-ACO) 03 88 00			
CDA failed CDA failed b5 - Issuer Update Processing NOT supported b4 - Do process online if card expired b3 - Do NOT decline if card expired b2 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to No CVM' allowed b1 - CVM Fallback to No CVM' allowed 9F 78 Application State [D-PAS] 01 BF 51 Contactless D-PAS MS and ZIP Default Profile 82 02 00 09 04 08 01 01 C2 Issuer Life Cycle Data (ILCD) [DPAS] 03 88			
b5 - Issuer Update Processing NOT supported b4 - Do process online if card expired b3 - Do NOT decline if card expired b2 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to No CVM allowed 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			
b4 - Do process online if card expired b3 - Do NOT decline if card expired b2 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to 'No CVM' allowed 9F 78 Application State [D-PAS] 01 BF 51 Contactless D-PAS MS and ZIP Default Profile 82 02 00 09 94 04 08 01 01 C0 Contactless Application Configuration Options (CL-ACO) 03 88 00			
b3 - Do NOT decline if card expired b2 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to 'No CVM' allowed 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			
b2 - CVM Fallback to Signature NOT allowed b1 - CVM Fallback to 'No CVM' allowed 9F 78 Application State [D-PAS] 01 BF 51 Contactless D-PAS MS and ZIP Default Profile 82 02 00 04 04 08 01 01 CO Contactless D-PAS MS and ZIP Default Profile 82 02 00 00 04 08 01 01 00 CO Contactless Application Configuration Options (CL-ACO) 03 88			
b1 - CVM Fallback to 'No CVM' allowed 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 01 00 C0 Contactless Application Configuration Options (CL-ACO) 03 88			
BF 51 Contactless D-PAS MS and ZIP Default Profile 82 02 00 04 08 01 01 00 C0 Contactless Application Configuration Options (CL-ACO) 03 88 00			b1 - CVM Fallback to 'No CVM' allowed
Diric of the conduction of the card Lin Dordation Profile Oot and Lin Dordation of the card Lin			
C0 Contactless Application Onfiguration Options (CL-ACO) 03 88 C2 Issuer Life Cycle Data (ILCD) [DPAS] 00 <td< td=""><td>BF 51</td><td></td><td>82 02 00 00 94 04 08 01 01 00</td></td<>	BF 51		82 02 00 00 94 04 08 01 01 00
Options (CL-ACO) 00 00 00 00 00 00 00 00 00 00 00 00 00			
C2 Issuer Life Cycle Data (ILCD) [DPAS] 00 0	CO		03 88
C3 Currency Conversion Codes 1 [DPAS] 08 40 00 01 00<	00		
O0 O0<	C2	Issuer Life Cycle Data (ILCD) [DPAS]	
O0 O0<			
C3 Currency Conversion Codes 1 [DPAS] 08 40 00 01 00 C4 Currency Conversion Codes 2 [DPAS] 08 40 00 01 00 C8 Lower Consecutive Offline Amount (LCOA) Limit [DPAS] 00			
C4 Currency Conversion Codes 2 [DPAS] 08 40 00 01 00 C8 Lower Consecutive Offline Amount (LCOA) Limit [DPAS] 00	C3	Currency Conversion Codes 1 [DPAS]	
C8Lower Consecutive Offline Amount (LCOA) Limit [DPAS]00 00 00 00 00 00 00C9Upper Consecutive Offline Amount Limit (UCOA) [DPAS]00 00 00 00 00 00 00CASingle Transaction Amount (STA) Limit [DPAS]00 00 00 00 00 00CBLower Consecutive Offline Limit (LCOL) [DPAS]00CCUpper Consecutive Offline Transaction00			
(LCOA) Limit [DPAS]C9Upper Consecutive Offline Amount Limit (UCOA) [DPAS]00 00 00 00 00 00 00CASingle Transaction Amount (STA) Limit [DPAS]00 00 00 00 00 00 00CBLower Consecutive Offline Limit (LCOL) [DPAS]00CCUpper Consecutive Offline Transaction00			00 00 00 00 00 00
C9Upper Consecutive Offline Amount Limit (UCOA) [DPAS]0000000000CASingle Transaction Amount (STA) Limit [DPAS]000000000000CBLower Consecutive Offline Limit (LCOL) [DPAS]000000000000CCUpper Consecutive Offline Transaction0000000000		(LCOA) Limit [DPAS]	
CA Single Transaction Amount (STA) Limit 00 00 00 00 00 00 [DPAS] 00 00 CB Lower Consecutive Offline Limit (LCOL) 00 [DPAS] 00 00 CC Upper Consecutive Offline Transaction 00	C9		00 00 00 00 00 00
[DPAS] 00 CB Lower Consecutive Offline Limit (LCOL) 00 [DPAS] 00 CC Upper Consecutive Offline Transaction 00			
CB Lower Consecutive Offline Limit (LCOL) 00 [DPAS] 00 CC Upper Consecutive Offline Transaction 00	CA		00 00 00 00 00 00
[DPAS] 00			
CC Upper Consecutive Offline Transaction 00	CB		00
Limit (UCOL) [DPAS]	CC		00
		Limit (UCOL) [DPAS]	

Tag	Element name	Data Card v6.x
CD	Number of Consecutive Offline	00
-	Transactions (NCOT) [DPAS]	
CE	Cumulative Offline Amount [DPAS]	00 00 00 00 00 00
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
D4	CVM-Accumulator [DPAS]	00 00 00 00 00 00
D5	CVM-Cum limit 1	00 00 00 00 00 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	C1 01 09 01 01 00
	Options (CACO) [D-PAS]	
DF 11	PDOL Check Table - Profile (PDOLP)	01 09 41 00 00 41 A0 11 FF 01 01
	[DPAS]	
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 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 00 00 00 00 04 02
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
<u>L</u>		* Tag value changes with card usage

4.12.7 CTLS: Application Tag data, AID A0000001523010 (D-PAS EMV, Online)

Tag	Element name	Data Card v6.x
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 20 20 - 'DISCOVER DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 01 38 D2 60 52 01 10 00 01 05 00 00 00
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 01 38
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	26 05 31
5F 25	Application Effective Date	XX XX XX
5F 28	Issuer Country Code	08 40 - USA

Tag	Element name	Data Card v6.x
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	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 via
		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
9F 07	Application Usage Control	FF 00
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 66 04 9F 71 02
9F 71	Card Processing Requirements [DPAS]	00 8B
3171		BYTE 2 (Permanent Data):
		b8 - Do switch to other interface if unable to
		process online
		b7 - Do NOT process online if CDA failed
		b6 - Do NOT decline/switch other interface if
		CDA failed
		b5 - Issuer Update Processing NOT supported b4 - Do process online if card expired
		b3 - Do NOT decline if card expired
		b2 - CVM Fallback to Signature allowed
		b1 - CVM Fallback to 'No CVM' allowed
9F 78	Application State [D-PAS]	01
BF 51	Contactless D-PAS MS and ZIP Default	82 02 00 00 94 04 08 01 01 00
	Profile	
C0	Contactless Application Configuration	03 88
	Options (CL-ACO)	
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
C3	Currency Conversion Codes 1 [DPAS]	08 40 00 01 00
C4	Currency Conversion Codes 2 [DPAS]	08 40 00 01 00
C4 C8	Lower Consecutive Offline Amount	00 00 00 00 00 00
	(LCOA) Limit [DPAS]	
C9	Upper Consecutive Offline Amount Limit	00 00 00 00 00 00
	(UCOA) [DPAS]	
CA	Single Transaction Amount (STA) Limit	00 00 00 00 00 00
	[DPAS]	
1		

Tog	Element name	Data Card v6 v
Tag	Element name	Data Card v6.x
СВ	Lower Consecutive Offline Limit (LCOL) [DPAS]	
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
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
D3	CVM-Accumulator [DPAS]	00 00 00 00 00 00
D4 D5	CVM-Cum limit 1	00 00 00 00 00 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 1	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	C1 01 09 01 01 00
	Options (CACO) [D-PAS]	
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
0121	[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 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
	CDM CAC Switch Interface [D DAC]	00 00 00 00 00 04 02
DF 30 DF 31	CRM-CAC Switch Interface [D-PAS]	00 00 00
DF 31 DF 32	CRM-CAC Denial [D-PAS]	C8 7E FF
	CRM-CAC Online [D-PAS]	98 3E EB
DF 33 DF 34	CRM-CAC Default [D-PAS]	40 80
DF 34 DF 35	CVM Card Action Codes - Online CVM Card Action Codes - Signature	00 80
DF 35 DF 40	CL-Accumulator	00 00 00 00 00 00
DF 40 DF 41	CL-Accumulator	00 00 00 00 00 00
DF 41 DF 42	CL-STA	00 00 00 00 00 00
DF 42 DF 43		00
DF 43 DF 44	CL-Counter CL-Cons Limit	00
UF 44		* Tag value changes with card usage

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	Element name	Data Card v6.x
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	55 53 20 44 45 42 49 54 20 20 20 20
50		20 20 20 20 - 'US DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 01 20 D2 60 52 01
0.		10 00 01 92 00 00 OF
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 01 20
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	26 05 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	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	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 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)	00 00 00 00 00 00 00 00 02 03 1F 03
	List	00 00 00 00
94	Application File Locator (AFL)	08 01 01 00 10 01 02 00 18 01 01 00
9F 07	Application Usage Control	AB 00
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 xx *

Element name	Data Card v6.x
Issuer Code Table Index	01
Application Preferred Name	55 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20 - 'US Debit
Personal Identification Number (PIN)	03
•	xx xx xx xx xx xx xx xx *
	80
	xx xx *
	0B 0A
	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
Application State [D-PAS]	01
Application Configuration Options [DPAS]	15 40
Issuer Life Cycle Data (ILCD) [DPAS]	00 00<
Currency Conversion Codes 1 [DPAS]	08 40 00 01 00
	08 40 00 01 00
	01 00
	2E 1F
	FE 1F
	08 40 - USA
	08 40 - USD
PDOL Check Table - Profile (PDOLP)	01 09 41 00 00 41 A0 00 0F 01 01
Transaction Profile Objects(TPO0) [DPAS]	00 18 00 08 01 01 00 10 01 02 00 18 01 01 00 </td
	Issuer Code Table Index Application Preferred Name Personal Identification Number (PIN) Try Counter Application Cryptogram (AC) Cryptogram Information Data (CID) Application Transaction Counter (ATC) Transaction Log Entry Transaction Log Entry Transaction Log Format Application State [D-PAS] Application Configuration Options [DPAS] Issuer Life Cycle Data (ILCD) [DPAS] Currency Conversion Codes 1 [DPAS] Currency Conversion Codes 2 [DPAS] Card Action Code - Denial [DPAS] Card Action Code - Default [DPAS] Card Action Code - Default [DPAS] Card Action Code - Online [DPAS] CRM Country Code [DPAS] CRM Currency Code [DPAS] PDOL Check Table - Profile (PDOLP) [DPAS] Transaction Profile Objects(TPO0)

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

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

Tee		Data
Tag	Element name	Data Card v6.x
50	Application Label	44 4E 41 - 'DNA' 40 00 00 00 00 00 00 28 D2 51 22 01
57	Track 2 Data [Discover]	56 78 00 00 00 35 1F
5A	Application Primary Account Number	40 00 00 00 00 00 00 28
0/1	(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 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	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 06 20 06 20
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 34 03
8D	Card Risk Management Data Object List	91 OA 8A 02 95 05 9F 37 04
05	2 (CDOL2)	00 00 00 00 00 00 00 00 02 01 02 04
8E	Cardholder Verification Method (CVM)	02 03 1F 03
04		08 01 01 00 18 01 02 01
94 9F 07	Application File Locator (AFL) Application Usage Control	FF 00
91 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
9F 08	Application Version Number	b7 - International cashback NOT allowed
9F 08 9F 0D	Issuer Action Code - Default	F0 40 E4 28 00
9F 0E	Issuer Action Code - Denal	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
	. , ,	
-	I ry Counter	
	Try Counter Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 26 9F 27	Application Cryptogram (AC) Cryptogram Information Data (CID)	xx xx xx xx xx xx xx * 80

4.14.2 Contact: Application Tag data, AID A0000006200620

Tag	Element name	Data	Card v6.x
9F 4D	Transaction Log Entry	OB OA	Ourd Volk
9F 4F	Transaction Log Format	51 05 51 52 00 51 11 02 55	36 02 9F 05 9C 01 53 08 9F
		66 04 9F 71 02 9F 6C 02	55 08 9F
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
C3	Currency Conversion Codes 1 [DPAS]	00 00 00 00 00 00 00 00 00 00 08 40 00 00 02	00 00 00
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	
D3	CRM Currency Code [DPAS]	08 40 - USD	
DF 20	Transaction Profile Objects(TPO0) [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 F6 1F 22 0B 00 00 00 00	02 01 00 00 00 00 00 00 01 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'.

All Merchant Type Indicator (MTI) Limits (tags 9F52, 9F54, 9F55, 9F56, 9F57) set to \$50.01 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 ('0403 0103 0203')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Enciphered PIN	Termina supports CVM type	Fail
2	Offline Plaintext PIN	Termina supports CVM type	Fail
3	Online PIN	Termina supports CVM type	Fail

4.15.2 Contact: Application Tag data, AID A0000002771010

Tag	Element name	Data Card v6.x
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'
57	Track 2 Equivalent Data	00 12 03 00 00 00 00 03 D2 81 22 20 08 97 74 00 00 00 1F
5A	Application Primary Account Number (PAN)	00 12 03 00 00 00 00 03
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' 20 2
5F 24	Application Expiration Date	28 12 31

В	2	≫

Tag	Element name	Data Card v6.x
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	19 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 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 2A 02 9A 03 9C 01 9F 37 04 9F 45 02
	1 (CDOL1)	9F 4C 08 9F 34 03
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 04 03 01 03
	List	02 03
8F	Certification Authority Public Key Index	07
90	Issuer Public Key Certificate	7E 37 FF 15 A4 88 1C 32 6D 5F 61 E4
		D7 4A 00 39 24 76 D5 44 80 B9 16 92
		4A 70 65 B7 B3 40 F3 1F A4 86 84 E1
		99 CE 82 DA 3F F6 0C 77 4A 13 D0 0B
		C8 46 7B 87 1C 9E 00 40 28 FA 44 D9 55 38 0E D5 50 F9 F0 C8 B0 3B 3F 9A
		CE OF FA FA 8B A6 B4 OC F9 69 A9 72
		AF C9 D1 EC 56 25 A0 0B B8 0E E0 38
		6E 57 22 BD FC 5C 7D 89 0C 71 5F 54
		67 4F CE B2 0B 5E 0E 80 E8 77 0B 59
		9E A4 E6 15 D8 60 2D 30 37 F4 CB B2
		CC 6F 4D B2 99 34 78 FC CE 47 A5 23 59 AA 00 A4 94 C5 87 BB D3 2F 3B 64
		A9 2E F8 77 47 25 66 A1 A7 24 F2 0B
		BB C8 24 26 9C 34 80 22 EF E7 83 85
		13 A7 AD 3B DE 7B 2B 3D B8 8F 5F B3
		A1 DA 45 B8 38 14 16 A1 OF 77 7E 55
		07 B8 05 48 33 D3 99 97 C1 5B 34 34 E0 86 A7 B6 7F 6B B0 29 60 E1 F5 59
		20 DC 2E 12 38 91 DA 23 34 03 AA D3
		97 75 0F 44 56 09 CD 2A
94	Application File Locator (AFL)	08 01 04 00 10 01 01 01 18 01 04 01
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
1		
		BYTE 2:
		b8 - Domestic cashback NOT allowed
9F 08	Application Version Number	

Tag	Element name	Data Card v6.x
9F 0D	Issuer Action Code - Default	FC 78 FC A8 40
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC F8 FC F8 70
9F 10	Issuer Application Data [InteracFlash]	xx 02 xx
		xx xx xx xx xx xx xx xx xx *
9F 13	Last Online Application Transaction	xx xx *
	Counter (ATC) Register	
9F 17	Personal Identification Number (PIN)	99
	Try Counter	
9F 27	Cryptogram Information Data (CID)	80
9F 32	Issuer Public Key Exponent	01 00 01
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	01 24 - CAD
9F 44	Application Currency Exponent	02
9F 46	ICC Public Key Certificate	55 DF E1 E2 CD 4F 10 63 CD CE 9F D8
		67 D0 B2 36 E4 FC 13 85 C3 1A 82 1A DA 2E D9 28 24 52 C8 CB 7A 67 45 5B
		DA 2E D9 28 24 52 C8 CB 7A 67 45 5B B3 B2 38 CD B4 B1 20 17 CE 75 7C 84
		E6 FC E8 15 A9 AC 63 0F 98 04 9C 7E
		6C 25 F6 47 BB 64 4D C9 97 37 46 2A
		A8 EB F2 9E 5E DD 8E 93 DE EA B3 5E
		54 FF 2D D8 2A B1 22 F8 BE D8 59 D9
		49 20 B0 D1 29 DC 09 1D BD 9A 3A AA
		A9 90 CB E9 FB D2 C8 E4 72 9C 7A FB 26 B4 2C 31 6D 09 B0 71 1F 39 4A 16
		26 B4 2C 31 6D 09 B0 71 IF 39 4A 16 3D 81 8B C3 66 97 68 66 9C AD 94 69
		E9 78 0D 15 C5 60 49 6A 99 D2 1A 1B
		C2 56 A0 8E 13 A6 B1 8D 7C 27 59 63
		AC E2 CE D0 94 7B 24 02
9F 47	ICC Public Key Exponent	01 00 01
9F 48	ICC Public Key Remainder	4A 69 14 C9 E8 EA 10 F7 E3 7D
9F 4A	Static Data Authentication Tag List	82
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
	5	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 CTLS: Application Tag data, AID A0000002771010 (Flash)

Tag	Element name	Data Card v6.x
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'
57	Track 2 Equivalent Data	00 12 03 00 00 00 00 03 D2 81 22 20 08 97 74 00 00 00 1F
5A	Application Primary Account Number (PAN)	00 12 03 00 00 00 00 03
5F 24	Application Expiration Date	28 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'

Tag	Element name	Data Card v6.x
82	Application Interchange Profile	01 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
		b1 - Combined DDA / GEN AC supported
		BYTE 2:
84	Dedicated File (DF) Name	b8 - EMV Contactless NOT supported 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
00	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 45 02
		9F 4C 08 9F 34 03
8F	Certification Authority Public Key Index	07
90	Issuer Public Key Certificate	7E 37 FF 15 A4 88 1C 32 6D 5F 61 E4
		D7 4A 00 39 24 76 D5 44 80 B9 16 92
		4A 70 65 B7 B3 40 F3 1F A4 86 84 E1 99 CE 82 DA 3F F6 0C 77 4A 13 D0 0B
		C8 46 7B 87 1C 9E 00 40 28 FA 44 D9
		55 38 0E D5 50 F9 F0 C8 B0 3B 3F 9A
		CE OF FA FA 8B A6 B4 OC F9 69 A9 72
		AF C9 D1 EC 56 25 A0 0B B8 0E E0 38
		6E 57 22 BD FC 5C 7D 89 0C 71 5F 54 67 4F CE B2 0B 5E 0E 80 E8 77 0B 59
		9E A4 E6 15 D8 60 2D 30 37 F4 CB B2
		CC 6F 4D B2 99 34 78 FC CE 47 A5 23
		59 AA 00 A4 94 C5 87 BB D3 2F 3B 64
		A9 2E F8 77 47 25 66 A1 A7 24 F2 0B
		BB C8 24 26 9C 34 80 22 EF E7 83 85
		13 A7 AD 3B DE 7B 2B 3D B8 8F 5F B3 A1 DA 45 B8 38 14 16 A1 0F 77 7E 55
		07 B8 05 48 33 D3 99 97 C1 5B 34 34
		E0 86 A7 B6 7F 6B B0 29 60 E1 F5 59
		20 DC 2E 12 38 91 DA 23 34 03 AA D3
-		97 75 OF 44 56 09 CD 2A
94	Application File Locator (AFL)	08 01 04 00 10 01 05 03
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 F8 FC F8 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC F8 FC F8 00
9F 10	Issuer Application Data [InteracFlash]	xx 02 xx
05 40	Last Onling Application Transaction	xx * xx xx *
9F 13	Last Online Application Transaction	AA XX ^
05 47	Counter (ATC) Register	99
9F 17	Personal Identification Number (PIN)	<i>33</i>
05.07	Try Counter	80
9F 27	Cryptogram Information Data (CID)	01 00 01
9F 32	Issuer Public Key Exponent	01 00 01

Tag	Element name	Data Card v6.x
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List (PDOL)	9F 59 03 9F 5A 01 9F 02 06 9F 1A 02 5F 2A 02 9F 37 04 9F 58 01
9F 42	Application Currency Code	01 24 - CAD
9F 44	Application Currency Exponent	02
9F 46	ICC Public Key Certificate	E8 14 8E 63 62 E5 81 A3 37 9C 7E 26
		05 40 06 1D B9 43 9D A8 B7 B1 E5 B0
		2F EE 26 1A 6B E1 60 BD 65 1F 6D 0E
		86 A8 9B 61 A2 D2 55 40 4C 6A 55 6D
		E5 2D 1C 3F 66 F9 16 9A 77 57 38 B0 E1 10 0A 9E 09 E4 A0 A8 D9 63 27 85
		86 02 56 44 10 7C 01 90 C5 89 E9 15
		50 62 3D C6 A4 14 4B 62 A9 70 1E 24
		46 59 CB 66 F6 D9 59 10 4D 54 4E 48
		01 55 91 AD 03 72 7A F1 A4 C3 8B A2
		39 FD 64 79 0E 8E 29 64 10 4B 66 7F
		F3 FE 04 00 07 E2 68 48 2E D0 4F BF
		A8 49 7D 08 B3 38 30 F6 32 13 4A 5C
		F8 A8 40 C2 18 44 0B 47 CB DA A6 16 34 58 1F 2B F6 FD DD ED
9F 47	ICC Public Key Exponent	01 00 01
9F 48	ICC Public Key Remainder	4A 69 14 C9 E8 EA 10 F7 E3 7D
9F 4A	Static Data Authentication Tag List	82
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
	Transaction Log Format	1A 02 95 05 9C 01 8A 02
9F 52	Merchant Type Indicator Limits 01	00 00 00 02 50 01 99 99 99 99 99 99
9F 54	Merchant Type Indicator Limits 02	00 00 00 02 50 01 99 99 99 99 99 99
9F 55	Merchant Type Indicator Limits 03	00 00 00 02 50 01 99 99 99 99 99 99
9F 56	Merchant Type Indicator Limits 04	00 00 00 02 50 01 99 99 99 99 99 99
9F57	Merchant Type Indicator Limits 05	00 00 00 02 50 01 99 99 99 99 99 99
9F 62	Card Product Code [InteracFlash]	00 01
9F 63	Card Transaction Information	00 10 00 00
	[InteracFlash]	
9F 70	Form Factor Indicator [InteracFlash]	00
DF 62	Application Selection Flag [Canada]	80 80

4.16 Test Card 16 - Mastercard, CO, 3-AID, English, USA, USD

A contact-only, 3-AID Mastercard Credit / 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.

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	Always	Fail		
5	Fail CVM Processing	Always	Fail		

4.16.1 Contact: CVM List - Mastercard, AID A00000004101001

4.16.2		
Tag	Element name	Data Card v6.x
50	Application Label	4D 41 53 54 45 52 43 41 52 44 43 52
		45 44 49 54 - 'MASTERCARDCREDIT'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 51 22 01
- 1		14 83 59 49 00 0F
5A	Application Primary Account Number	54 13 33 00 89 02 00 60
	(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 31 36 20 20
		20 20 - 'USA DEBIT/Test Card 16'
5F 24	Application Expiration Data	25 12 31
5F 24 5F 25	Application Expiration Date	xx xx xx *
	Application Effective Date	
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	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 via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10 01
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
8D	Card Diale Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
00	Card Risk Management Data Object List	
0	2 (CDOL2)	00 00 00 00 00 00 00 00 41 03 42 03
8E	Cardholder Verification Method (CVM)	5E 03 1F 00 00 00 00 00 41 03 42 03
04	List	08 01 01 00 10 01 02 00
94	Application File Locator (AFL)	
94	Application File Locator (AFL)	08 01 01 00 10 01 02 00
9F 07	Application Usage Control	FF 00
		BYTE 1: b8 - Domestic cash trans. valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid b4 - Domestic services valid
		b5 - International goods valid
		 b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid
		 b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid
		 b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2:
		 b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed
0E 09	Application Version Number	 b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	 b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed 00 02
9F 0D	Issuer Action Code - Default	 b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed 00 02 B0 50 BC 88 00
9F 0D 9F 0E	Issuer Action Code - Default Issuer Action Code - Denial	b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed 00 02 B0 50 BC 88 00 00 00 00 00 00
9F 0D 9F 0E 9F 0F	Issuer Action Code - Default Issuer Action Code - Denial Issuer Action Code - Online	b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed 00 02 B0 50 BC 88 00 00 00 00 00 00 B0 70 BC 98 00
9F 0D 9F 0E	Issuer Action Code - Default Issuer Action Code - Denial Issuer Action Code - Online Issuer Application Data [M/Chip	b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed 00 02 B0 50 BC 88 00 00 00 00 00 00 B0 70 BC 98 00 xx 14 xx
9F 0D 9F 0E 9F 0F	Issuer Action Code - Default Issuer Action Code - Denial Issuer Action Code - Online	b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed 00 02 B0 50 BC 88 00 00 00 00 00 00 B0 70 BC 98 00

4.16.2 Contact: Application Tag data, AID A00000004101001

9F 12 Application Preferred Name 40 61 73 74 65 72 63 61 72 64 64 72 64 64 72 64 64 72 64 64 72 64 64 65 72 64	Tag	Element name	Da	ita								Са	rd v	′6.x
65 64 69 74 -'MastercardCredit' 9F 14 Counter 1 Upper Limit [Mastercard] 09 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 24 Application Transaction Counter (ATC) xx xx * 9F 27 Cryptogram Information Data (CID) 80 0A 9F 27 Cryptogram Information Data (CID) 80 0A 0 9F 40 Transaction Log Format 9F 27 1 9F 02 06 5F 2A 02 9A 39 9F 7E Application Life Cycle Data [Mastercard] 00					73	74	65	72	63	61	72			
01 10 10 10 00 9F 17 Personal Identification Number (PIN) 09 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 25 Counter 1 Upper Limit [Mastercard] 00 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx xx * 9F 36 Application Transaction Log Entry 08 0A 9F 77 1 9F 92 06 5F 2A 02 9A 03 9F 9F 77 1 9F 02 06 5F 2A 02 9A 03 9F 9F 77 1 40 00 01<0 00					69	74	- 'N	laste	erca	rdCr	edit			
Try Counter Imit [Mastercard] 00 9F 23 Counter 1 Upper Limit [Mastercard] 00 98 97 97 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 8 7 8 7 8 7 7 14 8 8 4 1 7 7 14 7 7 14 7 7 14 7 10 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10 0<	-													
9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram Information Data (CID) 80 9F 37 Cryptogram Information Data (CID) 80 9F 40 Transaction Counter (ATC) xx xx * 9F 41 Transaction Log Entry 08 08 40 USD 9F 47 Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 39 9F 47 Transaction Log Format 9F 77 01 9F 02 06 5F 2A 02 9A 39 9F 9F 72 Application Life Cycle Data [Mastercard] 08 10 0	9F 17		09											
9F 26 Application Cryptogram (AC) 2B PF a Application Currency Code 80 9F 36 Application Currency Code 08 40 -USD 9F 42 Application Currency Code 08 40 -USD 9F 44 Transaction Log Entry 08 0A 97 9F 47 Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 9F 72 Application Life Cycle Data [Mastercard] 04 10 08 10 00 <t< td=""><td>0 - 00</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	0 - 00													
9F 27 Cryptogram information Data (CID) 80 9F 32 Application Transaction Counter (ATC) xx xx * 9F 42 Application Currency Code 08 40 - USD 9F 42 Application Log Entry 08 0A 9F 47 Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 76 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14 9F 7F Application Life Cycle Data [Mastercard] 04 10 08 14 00 01 00 00 12 00 02 59 A0 00 00 00 00 00 00 00 00 00 00 00 00						. 1 .	~			20				
9F 36 Application Transaction Counter (ATC) xx xx * 9F 36 Application Currency Code 08 04 -USD 9F 4D Transaction Log Entry 9B 36 02 9F 52 06 57 20 97 10 97 01 97 01 97 01 97 02 06 57 20 98 03 97 72 14 97 72 14 00				FΒ	AF		64	BF.	F.4	32				
9F 42 Application Currency Code 08 40 -USD 9F 4D Transaction Log Entry 08 0A 9F 701 9F 02 06 5F 2A 02 9A 03 9F 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 9F 7E Application Life Cycle Data [Mastercard] 04 10 08 14 00 01 00					+									
9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 05 52 06 DF 3E 01 9F 21 03 9F 9F 7E Application Life Cycle Data [Mastercard] 04 10 08 14 00 01 00						חפו								
9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 20 29 A0 39F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14 9F 7E Application Life Cycle Data [Mastercard] 04 10 08 14 00 01 00 00 12 00 02 00 00 00 00 00 00 00 00 00 00 00 00 00						000								
36 02 9F 52 06 DF 3E 01 9F 21 03 9F 9F 7E Application Life Cycle Data [Mastercard] 04 10 08 14 00 01 00			-	-		9F	02	06	5F	2A	02	9A	03	9F
9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00	51 41	Transaction Log Format												
AD Operation and systematic and systemati														
00 00<	9F 7E	Application Life Cycle Data [Mastercard]												
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] 1F 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 09 C6 PIN Try Limit [M/Chip Advance] 09 C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [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] 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 CB Accumulator 1 Code (Contactless) - Default [M/Chip Advance] 00 00 00 CF Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 00 00 01 01 08 40 00 01 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 00 00 00 01 01 08 40 00 01 D3 Additional Check Table [Mastercard] 00 00 00 00 00 00 00 00 00 01 01 D5														
Decline [M/Chip Advance] IF 50 00 C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] IF 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] IF 70 00 C6 PIN Try Limit [M/Chip Advance] 09 C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 08 40 - USA CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Corrency Code [Mastercard] 00 00 00 00 CB Accumulator 1 Corrency Contactless) - Default [M/Chip Advance] 00 00 00 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 01 01 08 40 00 01 01 08 40 00 01 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 0F FF FF FF FF FF FF FF FF FF F	C3	Card Issuer Action Code (Contact) -												
C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 1F 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 3F FB 00 C6 PIN Try Limit [M/Chip Advance] 09 C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 00 00 00 00 00 C8 Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 C9 Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 C8 Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 C9 Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 C8 Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 C9 Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 C1 Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 00 C4 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 D3 Additional Check Table [Mastercard] 00		· · · · · ·												
Default [M/Chip Advance] 3F FB 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 3F FB 00 C6 PIN Try Limit [M/Chip Advance] 09 C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 CB Accumulator 1 Cover Code (Contactless) - Default [M/Chip Advance] 00 00 00 CF Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 01 01 08 40 00 01 01 08 40 00 01 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 00 00 01 01 08 40 00 01 01 08 40 00 01 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 00 00 00 00 01 01 08 40 00 01 D3 Additional Check Table [Mastercard] 00 00 00 00 00 00 00 00 00 01 01 D6 Default ARPC Response Code [C4		1F	50	00									
Online [M/Chip Advance] 09 C6 PIN Try Limit [M/Chip Advance] 09 C7 CDQL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [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] 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 CB Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 01 01 01 840 00 01 01 08 40 00 01 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 01 01 01 08 40 00 01 01 01 08 40 00 01 D3 Additional Check Table [Mastercard] 00 00 00 00 00 00 00 01 01 D5 Application Control [M/Chip Advance] 00 00 00 00 00 00 00 00 D6 Default ARPC Response Code [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 </td <td></td>														
C6 PIN Try Limit [M/Chip Advance] 09 C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [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] 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 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 Table [Mastercard] 00 00 01 01 08 40 00 01 01 08 40 00 01 01 D3 Additional Check Table [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 D6 Default ARPC Response Code [M/Chip Advance] 00 00 00 00 00 00 00 00 00 D7 Application Control [M/Chip Advance] 00 00 00 00 00 00 00 00 00 D7 Application File Locator (Contactless) DE 00 00 00 00	C5	Card Issuer Action Code (Contact) -	3F	FB	00									
000 101 Particip Transmitter 42 C7 CD0L1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 CB Accumulator 1 Code (Contactless) - Default [M/Chip Advance] 00 00 00 CE Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 D3 Additional Check Table [Mastercard] 00 00 00 00 FF FF FF FF FF FF FF FF FF F														
Of additional Control Data Length [Mastercard] 08 40 - USA C8 CRM Country Code [Mastercard] 08 40 - USD C9 Accumulator 1 Currency Code 08 40 - USD [Mastercard] 00 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 00 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 00 00 00 01 01 08 40 00 01 01 08 40 00 01 D3 Additional Check Table [Mastercard] 00 00 00 00 00 00 00 00 00 00 D6 Default ARPC Response Code [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 D7 Application Control [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 D6 Default ARPC Response Code [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00<														
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 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 00 01 01 08 40 00 01 01 08 40 00 01 00 00 01 01 08 40 00 01 01 08 <td>C7</td> <td></td> <td>42</td> <td></td>	C7		42											
C9 Accumulator 1 Currency Code [Mastercard] 08 40 - USD CA Accumulator 1 Lower Limit [Mastercard] 00 01 10 84 00 01 01 84 00 01 01 84 00 01 01 08 40 00 01 01 03 4dditio														
[Mastercard] 00 01														
CA Accumulator 1 Lower Limit [Mastercard] 00 01 01 03 03 04 04 00 01 01 08 40 00 01 01 08 40 00 01 01 08 00 01 01 03	C9		08	40	- L	ISD								
OR Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 00 00 00 00 00 CE Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 01 01 01 01 01 01 01 01 01 0	<u> </u>		00	00	0.0	00	00	00						
CD Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 00 00 00 00 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 01 01 01 01 01 01 01 01 00 01 01 01 01 01 01 01														
Default [M/Chip Advance] 00 00 00 00 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 00 DFault [M/Chip Advance] 00 00 00 00 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 03 40 00 01 01 01 01 03 40 00 01 01 03 40 00 01 01 03 40 00 01 01 03 40 00 01 01 03 40 40 40 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>00</td> <td>00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							00	00						
CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 00 00 00 00 00 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 01 03 40 00 01 01 01 01 01 03 40 00 01 01 01 01 01 01 01 01 01 01 01 01 01 0	CD	· · · · · · · · · · · · · · · · · · ·												
Online [M/Chip Advance] Outline [M/Chip Advance] CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 01 01 08 40 00 01 01 08 40 00 01 D3 Additional Check Table [Mastercard] 00 00 00 FF F	CF		00	00	00									
CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 01 0	02	· · · · · · · · · · · · · · · · · · ·												
Decline [M/Chip Advance] 0 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 01 01 08 40 00 01 <td< td=""><td>CF</td><td></td><td>00</td><td>00</td><td>00</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	CF		00	00	00									
D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 01<	-													
Table [Mastercard] 00 01 0	D1													
D3Additional Check Table [Mastercard]000000FF <td></td> <td></td> <td></td> <td></td> <td>01</td> <td>08</td> <td>40</td> <td>00</td> <td>01</td> <td>01</td> <td>80</td> <td>40</td> <td>00</td> <td>01</td>					01	08	40	00	01	01	80	40	00	01
D5Application Control [M/Chip Advance]86008000C602D6Default ARPC Response Code [M/Chip Advance]00100010D7Application Control [M/Chip Advance]0000000000D9Application File Locator (Contactless)000000000000DELog Data Table [M/Chip Advance]0000000000000000DF 02Security Limits Status (Contact) [M/Chip Advance]0000000000000000DF 11Accumulator 1 Control (Contact) [M/Chip Advance]C1	DO	Additional Obach Table [Mastersand]	-		0.0		चच	-	चच		-	चच	चच	चच
D5Application Control [M/Chip Advance]86008000c602D6Default ARPC Response Code [M/Chip Advance]00100010D7Application Control [M/Chip Advance]0000000000D9Application File Locator (Contactless)000000000000DELog Data Table [M/Chip Advance]0000000000000000DF 02Security Limits Status (Contact) [M/Chip Advance]0000000000000000DF 11Accumulator 1 Control (Contact) [M/Chip Advance]C1	D3	Additional Check Table [Mastercard]							F F	F F	F F	<u> </u>	<u> </u>	F F
D6Default ARPC Response Code [M/Chip Advance]0010D7Application Control [M/Chip Advance]0000000000D9Application File Locator (Contactless)00000000000000DELog Data Table [M/Chip Advance]00000000000000000000DF 02Security Limits Status (Contact) [M/Chip Advance]00<	D5	Application Control [M/Chip Advance]												
Advance]0000000000D7Application Control [M/Chip Advance]0000000000D9Application File Locator (Contactless)00000000000000DELog Data Table [M/Chip Advance]00 <td></td>														
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 [M/Chip Advance] 00 DF 12 Accumulator 1 Control (Contactless) 00 [M/Chip Advance] 00 DF 14 Accumulator 2 Control (Contact) 00														
D9Application File Locator (Contactless)DELog Data Table [M/Chip Advance]00 <t< td=""><td></td><td></td><td>00</td><td>00</td><td>00</td><td>00</td><td>00</td><td>00</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>			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) 00														
Advance] C1 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) 00					00	00	00	00	00	00	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) 00	DF 02		00		_		_						_	
DF 12 Accumulator 1 Control (Contactless) 00 [M/Chip Advance] 00 DF 14 Accumulator 2 Control (Contact) 00	DF 11	Accumulator 1 Control (Contact)	C1											
DF 14 Accumulator 2 Control (Contact) 00	DF 12	Accumulator 1 Control (Contactless)	00											
	DF 14		00											

Tag	Element name	Data Card v6.:
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code	08 40 - USD
_	[Mastercard]	
DF 17	Accumulator 2 Currency Conversion	08 40 00 01 01 08 40 00 01 01 08 40
	Table [Mastercard]	00 01 01 08 40 00 01 01 08 40 00 01
		01
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 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	00 00 00 00 00 00
	Advance]	
DF 24	MTA Currency Code [M/Chip Advance]	08 40
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
DF 27	Number Of Days Offline Limit [M/Chip Advance]	99 99
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
DF 2C	(Contactless) [M/Chip Advance] Counter 1 CVR Dependency Data	00 00 00
DE 65	(Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	
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
1		

Tag	Element name	Data	Card v6.x
DF 40	Read Record Filter (Contactless) [M/Chip Advance]		
DF 41	DS Management Control [M/Chip Advance]	20	

4.16.3 Contact: CVM List - Mastercard, AID A00000004101002

Cardhol	Cardholder Verification Method List ('4201 1E03 4203 1F03')					
CVM	Verification Method	Conditions	If unsuccessful			
1	Online PIN	Unattended Cash	Next CVM			
2	Signature (Paper)	Terminal supports CVM type	Fail			
3	Online PIN	Terminal supports CVM type	Next CVM			
4	No CVM required	Terminal supports CVM type	Fail			

4.16.4 Contact: Application Tag data, AID A00000004101002

Tag	Element name	Data Card v6.x
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	44 45 42 49 54 20 4D 41 53 54 45 52
		43 41 52 44 - 'DEBIT MASTERCARD'
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 51 22 01 14 83 59 49 00 0F
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 31 36 20 20 20 20 - 'USA DEBIT/Test Card 16'
55.04	Application Expiration Data	20 20 - USA DEBIT/Test Card 16
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	01
5F 34	Application PAN Sequence Number	55 53 - 'US'
5F 55	Issuer Country Code (alpha2 format)	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 via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported BYTE 2:
		b11E 2. b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10 02
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 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 1E 03
	List	42 03 1F 03
94	Application File Locator (AFL)	08 01 01 00 10 01 02 00 18 01 01 00
94	Application File Locator (AFL)	08 01 01 00 10 01 02 00 18 01 01 00

Tag	Element name	Data Card v6.x
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash trans. 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 - non-ATM terminals 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 10 xx
01 10	Advancel	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	44 65 62 69 74 20 4D 61 73 74 65 72
31 12	Application Freieneu Name	63 61 72 64 - 'Debit Mastercardt'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	09
91 17	Try Counter	
0 - 22		00
9F 23	Counter 1 Upper Limit [Mastercard]	
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
05 75		7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 12 00 02 59 A0 00 00 00 04 10 10 00 </td
C3	Card Issuer Action Code (Contact) -	00 00 00
00	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		
00	Online [M/Chip Advance]	09
C6	PIN Try Limit [M/Chip Advance]	42
C7	CDOL1 Related Data Length	42
00	[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]	
		1

B2》	
------------	--

TagElement nameDataD1Accumulator 1 Currency Conversion Table [Mastercard]08 40 00 01 01 08 00 01 01 08 40 00 01	40 00		Ca	rd ۱	16 V
Table [Mastercard] 00 01 01 08 40 00	40 00				
	01 01	08	40	00	01
	चच चच	चच	चच	चच	चच
D3 Additional Check Table [Mastercard] 00 00 00 FF FF FF FF FF FF FF FF FF	<u> </u>	<u> </u>	<u> </u>	<u> </u>	C C
D5 Application Control [M/Chip Advance] 80 00 80 00 C6 02					
D6 Default ARPC Response Code [M/Chip 00 10					
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 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 08 40 - USD					
[Mastercard]					
DF 17 Accumulator 2 Currency Conversion 08 40 00 01 01 08	40 00	01	01	08	40
Table [Mastercard] 00 01 01 08 40 00	01 01	08	40	00	01
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 C1					
Advance]					
DF 1B Counter 1 Control (Contactless) [M/Chip 00					
Advance]					
DF 1D Counter 2 Control (Contact) [M/Chip 00					
Advance]					
DF 1E Counter 2 Control (Contactless) [M/Chip 00					
Advance]					
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					
DF 26 MTA NoCVM (Contactless) [M/Chip 00					
DF 27 Number Of Days Offline Limit [M/Chip 99 99					
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]					

Tag	Element name	Data Card v6.x
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]	
DF 41	DS Management Control [M/Chip Advance]	20

4.16.5 Contact: CVM List - Mastercard, AID A000000042203

Cardho	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			

4.16.6 Contact: Application Tag data, AID A000000042203

Tag	Element name	Data Card v6.x
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 4D 41 45 53 54 52 4F 20 20 20 20 20 20 - 'US MAESTRO
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 51 22 01 14 83 59 49 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 36 20 20 20 20 - 'USA DEBIT/Test Card 16' 20 2
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
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'

Tag	Element name	Data Cardue v					
Tag	Element name	Data Card v6.x					
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 via					
		EXTERNAL AUTH command					
		b1 - Combined DDA / GEN AC NOT supported BYTE 2:					
		b8 - EMV Contactless 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					
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 02 05 42 03 1F 03					
	List						
94	Application File Locator (AFL)	08 01 01 00 10 01 02 00 20 01 01 00					
94	Application File Locator (AFL)	08 01 01 00 10 01 02 00 20 01 01 00					
9F 07	Application Usage Control	FF C0					
		BYTE 1: b8 - Domestic cash trans. 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 - non-ATM terminals 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 10 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 73 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)	09					
	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)	00 04					
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					
	-	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 12 00 02 59 A0 00 00 00 04 10 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					
	•	·					

Tag	Element name	Data Card v6.x
C3	Card Issuer Action Code (Contact) -	
0.5	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]	09
C7	CDOL1 Related Data Length	42
0.	[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) -	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 01 01 08 40 00 01 01 08 40
	Table [Mastercard]	00 01 01 08 40 00 01 01 08 40 00 01
		01
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	FF FF FF FF FF FF 00 00 00 00 00 00
-	Application Control [M/Chip Advance] Default ARPC Response Code [M/Chip	00 10
D6	Advance]	00 10
D7		00 00 00 00 00 00
D7 D9	Application Control [M/Chip Advance]	
DB	Application File Locator (Contactless)	00 00 00 00 00 00 00 00 00
DE DF 02	Log Data Table [M/Chip Advance] Security Limits Status (Contact) [M/Chip	00
DF 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	08 40 - USD
	[Mastercard]	
DF 17	Accumulator 2 Currency Conversion	08 40 00 01 01 08 40 00 01 01 08 40
	Table [Mastercard]	00 01 01 08 40 00 01 01 08 40 00 01
		01
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	C1
	Advance]	
DF 1B	Counter 1 Control (Contactless) [M/Chip	00
	Advance]	
DF 1D	Counter 2 Control (Contact) [M/Chip	00
	Advance]	
DF 1E	Counter 2 Control (Contactless) [M/Chip	00
	Advance]	
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00

Tag	Element name	Data Card v6.x
DF 22	MTA CVM (Contact) [M/Chip Advance]	
DF 23	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	Advance]	
DF 24	MTA Currency Code [M/Chip Advance]	08 40
DF 25	MTA NoCVM (Contact) [M/Chip	00 00 00 00 00 00
DI 23	Advance]	
DF 26	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00
D1 20	Advance]	
DF 27	Number Of Days Offline Limit [M/Chip	99 99
0.21	Advance]	
DF 28	Accumulator 1 CVR Dependency Data	00 00 00
2. 20	(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
55.00	Advance]	00
DF 3C	CVR Issuer Discretionary Data	00
	(Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data	
DF 3F	(Contactless) [M/Chip Advance] Read Record Filter (Contact) [M/Chip	00
DF 3F	Advance]	
DF 40	Read Record Filter (Contactless)	
	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
	Advance]	

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	Х
01	00000001	01	SOH	45	00101101	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]
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	A	109	01101101	6D	m
22	00010110	16	SYM	66	01000010	42	B	110	01101110	6E	n
23	00010111	17	ETB	67	01000011	43	C	111	01101111	6F	0
24	00011000	18		68	01000100	44	D	112	01110000	70	p
25 26	00011001 00011010	19 1A	EM SUB	69 70	01000101 01000110	45 46	E F	113 114	01110001 01110010	71 72	q
20	00011010	1B	ESC	70	01000110	40	G	114	01110010	72	r
28	00011011	1C	FS	72	010001000	47	H	116	01110100	74	s t
29	00011101	1D	GS	73	01001000	49		117	01110100	75	u
30	00011110	1E	RS	74	01001001	4A	J	118	01110110	76	v
31	00011111	1F	US	75	01001011	4B	ĸ	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	y
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	Р	124	01111100	7C	
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				