

USA Debit EMV™ Test Plan

Version 7.00

March 2021



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-T03 Updated Test Cases: CD.MCCL.C08-T02 CD.MCCL.C08-T03 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	

Table of Contents

Chapter	1 - Ove	erview		7
1.1	USA De	bit EMV Te	est Plan - Purpose	7
1.2	Target A	Audience		7
1.3	System	Requireme	ents	7
-	•	•	ng U.S. Debit	
-	_		_	
2.1			it Scenarios	
2.2			tion for U.S. Debit with Cardholder Verification Handling	
2.3	PIN Pre	ferring Mer	rchants:	11
2.4	Credit/E	ebit Prom	pting Merchants:	12
2.5	Final Se	election Pro	ocessing	13
2.6	U.S. De	bit Process	sing Flowchart PIN Preferring Merchants	15
2.7			sing Flowchart - Credit/Debit Prompting Merchants	
			MV Test Plan	
•				
3.1				
3.2	Selectin	ng Applicat	ole Test Cases	17
3.3	USA De		est Cases	
	3.3.1		ID and Title	
	3.3.2	,,		
	3.3.3	•		
	3.3.4 3.3.5	•	sites	
	3.3.6	•	ria	
	3.3.7		ia	
	3.3.8		ist of AIDs used in USA Debit EMV Test Card Set	
	3.3.9		ring, Merchant Controlled Candidate List – Test Cases	
		3.3.9.1	PP.MCCL.C01-T01	
		3.3.9.2	PP.MCCL.C01-T02	
		3.3.9.3	PP.MCCL.C01-T03	
		3.3.9.4 3.3.9.5	PP.MCCL.C01-T04 PP.MCCL.C02-T01	
		3.3.9.6	PP.MCCL.C02-T02	
		3.3.9.7	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	PP.MCCL.C05-T01 PP.MCCL.C05-T02	
		3.3.9.12 3.3.9.13	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	
		3.3.9.18	PP.MCCL.C07-T02	
		3.3.9.19	PP.MCCL.C07-T03	
		3.3.9.20	PP.MCCL.C08-T01	
		3.3.9.21 3.3.9.22	PP.MCCL.C08-T02 PP.MCCL.C08-T03	
		3.3.9.23	PP.MCCL.C08-T03	
		3.3.9.24	PP.MCCL.C09-T01	
		3.3.9.25	PP.MCCL.C09-T02	_

	3.3.9.26	PP.MCCL.C09-T03	
	3.3.9.27	PP.MCCL.C09-T04	
	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	
	3.3.9.37	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	
	3.3.10.1	PP.SEAS.C01-T01	64
	3.3.10.2	PP.SEAS.C01-T02	
	3.3.10.3	PP.SEAS.C01-T03	66
	3.3.10.4	PP.SEAS.C01-T04	67
	3.3.10.5	PP.SEAS.C01-T05	68
	3.3.10.6	PP.SEAS.C02-T01	69
	3.3.10.7	PP.SEAS.C02-T02	
	3.3.10.8	PP.SEAS.C03-T01	71
	3.3.10.9	PP.SEAS.C03-T02	
	3.3.10.10	PP.SEAS.C03-T03	
	3.3.10.11	PP.SEAS.C03-T04	
	3.3.10.12	PP.SEAS.C04-T01	
	3.3.10.13	PP.SEAS.C05-T01	
	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 3.3.10.20	PP.SEAS.C06-T02	
	3.3.10.20	PP.SEAS.C07-T01 PP.SEAS.C07-T02	
	3.3.10.21	PP.SEAS.C07-T03	
	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	
	3.3.10.30	PP.SEAS.C09-T04	
	3.3.10.31	PP.SEAS.C09-T05	
	3.3.10.32	PP.SEAS.C10-T01	
	3.3.10.33	PP.SEAS.C10-T02	
	3.3.10.34	PP.SEAS.C11-T01	
	3.3.10.35	PP.SEAS.C11-T02	
	3.3.10.36	PP.SEAS.C11-T03	99
	3.3.10.37	PP.SEAS.C11-T04	
	3.3.10.38	PP.SEAS.C11-T05	
	3.3.10.39	PP.SEAS.C11-T06	
	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 <i>4</i> 7	PP SFAS C13-T01	110

	3.3.10.48	PP.SEAS.C13-T02	11	11
	3.3.10.49	PP.SEAS.C14-T01	1	12
	3.3.10.50	PP.SEAS.C15-T01	1	13
	3.3.10.51	PP.SEAS.C16-T01	1	14
3.3.11	Credit/Debit	Prompting, Merchant Controlled Candidate List – Test Cases	1	15
0.0.11				
	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	CD.MCCL.C01-T04		
	3.3.11.5	CD.MCCL.C02-T01		
	3.3.11.6	CD.MCCL.C02-T02		
	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	CD.MCCL.C06-T01		
	3.3.11.16	CD.MCCL.C06-T02	13	30
	3.3.11.17	CD.MCCL.C07-T01	13	31
	3.3.11.18	CD.MCCL.C07-T02		
	3.3.11.19	CD.MCCL.C07-T03	13	33
	3.3.11.20	CD.MCCL.C08-T01	13	34
	3.3.11.21	CD.MCCL.C08-T02	13	35
	3.3.11.22	CD.MCCL.C08-T03	13	36
	3.3.11.23	CD.MCCL.C09-T01		
	3.3.11.24	CD.MCCL.C09-T02	13	38
	3.3.11.25	CD.MCCL.C10-T01	13	39
	3.3.11.26	CD.MCCL.C10-T02	14	40
	3.3.11.27	CD.MCCL.C11-T01	14	41
	3.3.11.28	CD.MCCL.C11-T02	14	42
	3.3.11.29	CD.MCCL.C11-T03	14	43
	3.3.11.30	CD.MCCL.C11-T04	14	44
	3.3.11.31	CD.MCCL.C12-T01	14	45
	3.3.11.32	CD.MCCL.C12-T02	14	46
	3.3.11.33	CD.MCCL.C13-T01		
	3.3.11.34	CD.MCCL.C13-T02	14	48
	3.3.11.35	CD.MCCL.C14-T01	14	49
	3.3.11.36	CD.MCCL.C15-T01	1	50
	3.3.11.37	CD.MCCL.C16-T01	1	51
3.3.12	Credit/Debit	Selection, Standard EMV Application Selection – Test Cases	1	52
0.0	3.3.12.1	CD.SEAS.C01-T01		
	3.3.12.1	CD.SEAS.C01-T01		_
	3.3.12.2	CD.SEAS.C01-102		
	3.3.12.4	CD.SEAS.C01-103		
	3.3.12.4	CD.SEAS.C01-104		
	3.3.12.6	CD.SEAS.C02-101		
	3.3.12.7	CD.SEAS.C03-T01		
	3.3.12.8 3.3.12.9	CD.SEAS.C03-102		
	3.3.12.10	CD.SEAS.C03-103		
		CD.SEAS.C05-T01		
	3.3.12.11 3.3.12.12	CD.SEAS.C05-101		
	3.3.12.13 3.3.12.14	CD.SEAS.C05-T03		
	3.3.12.15	CD.SEAS.C06-T01		
	3.3.12.16 3.3.12.17	CD.SEAS.C06-T02		
	3.3.12.17	CD.SEAS.C07-T01		
	3.3.12.18	CD.SEAS.C07-T03		
	3.3.12.19	CD.SEAS.C08-T01		
	3.3.12.21	CD.SEAS.C08-T02		
	3.3.12.22	CD.SEAS.C08-T03		
	~·~·~			. •

		3.3.12.23 CD.SEAS.C08-T04	174
		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-T01	
		3.3.12.29 CD.SEAS.C11-T01	• • • • • • •
		3.3.12.30 CD.SEAS.C11-T02	_
		3.3.12.31 CD.SEAS.C11-T03	
		3.3.12.33 CD.SEAS.C11-T04	
		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	
		3.3.12.39 CD.SEAS.C12-T04	
		3.3.12.40 CD.SEAS.C12-T05	_
		3.3.12.41 CD.SEAS.C13-T01	_
		3.3.12.42 CD.SEAS.C13-T02	
		3.3.12.44 CD.SEAS.C15-T01	
		3.3.12.45 CD.SEAS.C16-T01	
Chapte	r 4 - US	SA Debit EMV Test Card Set Profiles	197
4.1		card 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	201
	4.1.3	Contact: CVM List - U.S. Debit, AID A000000980840	
	4.1.4	Contact: Application Tag data, AID A000000980840	
	4.1.5	Contactless: Application Tag data, AID A000000031010	204
	4.1.6	Contactless: Application Tag data, AID A000000980840	
4.2	Test C	ard 02 - Visa, CO, 1-AID (US Debit), English, USA, USD	208
	4.2.1	Contact: CVM List - US Debit, AID - A000000980840	208
	4.2.2	Contact: Application Tag data, AID A000000980840	208
4.3	Test C	card 03 - Visa, CO, 3-AID (Credit+Debit+US Common, 2-Funding), Englis	
	4.3.1	USD Contact: CVM List - Visa Credit, AID - A00000003101001	
		Contact: Application Tag data, AID A000000003101001	
	4.3.2		
	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 A00000000980840	
	4.3.6	Contact: Application Tag data, AID A000000980840	
4.4		Card 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	217
4.5	Test C	card 05 - Mastercard, DI, 2-AID (Mastercard Debit+US Debit), English, 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	Contactless: CVM List - Mastercard debit, AID A000000041010	
	4.5.6	Contactless: Application Tag data, AID A000000041010	
	4.5.7	Contactless: CVM List - U.S. Maestro, AID A000000042203	
	4.5.8	Contactless: Application Tag data, AID A000000042203	

4.6	Test Ca	ard 06 - Mastercard, CO, 1-AID (Maestro 2-Funding), English, NLD, EUR	231
	4.6.1	Contact: CVM List - Maestro Debit, AID A000000043060D0561111	
	4.6.2	Contact: Application Tag data, AID A000000043060D0561111	
	4.6.3	Contact: CVM List - Maestro Debit, AID A000000043060D0562222	
	4.6.4	Contact: Application Tag data, AID A000000043060D0562222	234
4.7	Test Ca	ard 07 - Mastercard Int'l, CO, 2-AID (Credit+Debit), English, GBR, GBP	
	4.7.1	Contact: CVM List - Mastercard credit, AID A000000041010	238
	4.7.2	Contact: Application Tag data, AID A000000041010	238
	4.7.3	Contact: CVM List - Maestro debit, AID A000000043060	
	4.7.4	Contact: Application Tag data, AID A000000043060	241
4.8	Test Ca	ard 08 - U.S. Maestro, CO, 1-AID (2-Funding), English, USA, USD	245
	4.8.1	Contact: CVM List - Mastercard U.S. Checking, AID A0000000042203D0561111.	
	4.8.2	Contact: Application Tag data, AID A000000042203D0561111	245
	4.8.3	Contact: CVM List - Mastercard U.S. Savings, AID A000000042203D0562222	248
	4.8.4	Contact: Application Tag data, AID A000000042203D0562222	248
4.9	Test Ca	ard 09 - Mastercard, CO, 3-AID (Credit+Maestro x2), English, USA, USD	252
	4.9.1	Contact: CVM List - Mastercard credit, AID A000000041010	252
	4.9.2	Contact: Application Tag data, AID A000000041010	252
	4.9.3	Contact: CVM List - Maestro debit, AID A000000043060	255
	4.9.4	Contact: Application Tag data, AID A000000043060	255
	4.9.5	Contact: CVM List - U.S. Maestro, AID A000000042203	258
	4.9.6	Contact: Application Tag data, AID A000000042203	259
4.10	Test Ca	ard 10 - Mastercard CO, Contact, 1-AID (US Maestro), English, USA, USD	262
	4.10.1	Contact: CVM List - U.S. Maestro, AID A000000043060	262
	4.10.2	Contact: Application Tag data, AID A000000043060	262
4.11	Test Ca	ard 11 - Mastercard, CO, 4-AID (MC+USM/Maestro+USM), English, USA, USD)265
	4.11.1	Contact: CVM List - Mastercard debit, AID A000000041010	
	4.11.2	Contact: Application Tag data, AID A000000041010	
	4.11.3	Contact: CVM List - U.S. checking, AID A00000004220301	268
	4.11.4	Contact: Application Tag data, AID A00000004220301	268
	4.11.5	Contact: CVM List - Maestro debit, AID A000000043060	272
	4.11.6	Contact: Application Tag data, AID A000000043060	272
	4.11.7	Contact: CVM List - U.S. Savings debit, AID A00000004220302	275
	4.11.8	Contact: Application Tag data, AID A00000004220302	275
4.12	Test Ca	ard 12 - Discover, DI, 2-AID (U.S. Debit, Discover), Eng/Spa/Fre, USA, USD	279
	4.12.1	Contact: CVM List - Discover U.S. Debit, AID A0000001524010	
	4.12.2	Contact: Application Tag data, AID A0000001524010	
	4.12.3	Contact: CVM List - Discover Debit, AID A0000001523010	
	4.12.4	Contact: Application Tag data, AID A000001523010	
	4.12.5	Contactless: CVM List - Discover U.S. Debit, AID A0000001524010	
	4.12.6	Contactless: Application Tag data, AID A000001524010	
	4.12.7	Contactless: Application Tag data, AID A0000001523010	
4.13		ard 13 - Discover, CO, 1-AID (U.S. Debit), English, USA, USD	
	4.13.1	Contact: CVM List - Discover U.S. Debit, AID A0000001524010	
	4.13.2	Contact: Application Tag data, AID A0000001524010	
111			
4.14	4.14.1	ard 14 - DNA, CO, 1 AID (DNA), English, USA, USD	
	4.14.1	Contact: Application Tag data, AID A0000006200620	
4.45		•	
4.15	rest Ca	ard 15 - Interac, DI, 1-AID (Interac), English, CAN, CAD	291



Chapter	5 - AS	CII Character Conversion Chart	297
	4.16.2	Contact: Application Tag data, AID A0000002771010	294
	4.16.1	Contact: CVM List - Interac, AID A0000002771010	294
4.16	Test Ca	ard 16 - Interac, CO, 1-AID (Interac), English, CAN, CAD	294
	4.15.4	Contactless: Application Tag data, AID A000002771010	293
	4.15.3	Contactless: CVM List - Interac Flash, AID A0000002771010	293
	4.15.2	Contact: Application Tag data, AID A0000002771010	29
	4.15.1	Contact: CVM List - Interac, AID A000002771010	29

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	Scheme	AID	
Discover	U.S. Common Debit	A0000001524010	
DNA	U.S. Common Debit	A0000006200620	
Mastercard	U.S. Maestro	A0000000042203	
Visa	Visa Common Debit	A0000000980840	

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.

U.S. Common Debit Scenarios

U.S. CUITITIO	U.S. Common Debit Scenarios					
Scenario	AID Care	Country Code Tag 5F55	IIN Tag 42 Ile debit funding	Candidate List Choice for the Merchant		
One	- Carlo		est Cards 01, 05			
Global Debit AID	TC 01 - A0000000031010 TC 05 - A0000000041010 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		
U.S. Common Debit AID	TC 01 - A0000000980840 TC 05 - A0000000042203 TC 12 - A0000000154010	US	TC 01 - 476173 TC 05 - 541333 TC 12 - 651000	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)		
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. Common	n Debit Scenarios				
Scenario	AID	Country Code Tag 5F55	IIN Tag 42	Candidate List Choice for the Merchant	
Global Debit AID	TC 03 - A000000003101002 TC 09 - A0000000043060	US	TC 03 - 476173 TC 09 - 679999	Merchant should decide on either the Global AID or the U.S. Common Debit AID based on their preferred routing choice: Global AID – may only be routed to 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)	
U.S. Common Debit AID	TC 03 - A0000000980840 TC 09 - A0000000042203	US	TC 03 - 476173 TC 09 - 679999		
Three	Card accesses two		accounts – Acco	ounts have different IINs:	
Global Debit AID 1	TC 11 - A000000043060	US	5413333	Merchant should choose either the 2 Global AIDs or the 2	
U.S. Common Debit AID 1	TC 11 - A000000004220301	US	541333	U.S. Common Debit AIDs based on their preferred routing choice: Global AIDs — may only be routed to Visa, Mastercard or	
Global Debit AID 2	TC 11 - A0000000041010	US	679999	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)	

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.
- 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).
- 3. 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 "All 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"

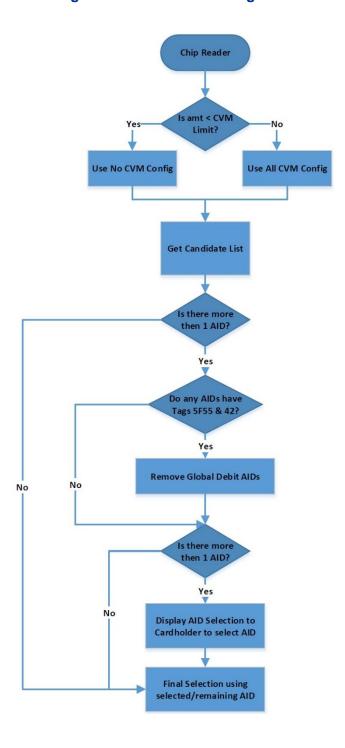
Set the Processing Code:

- 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

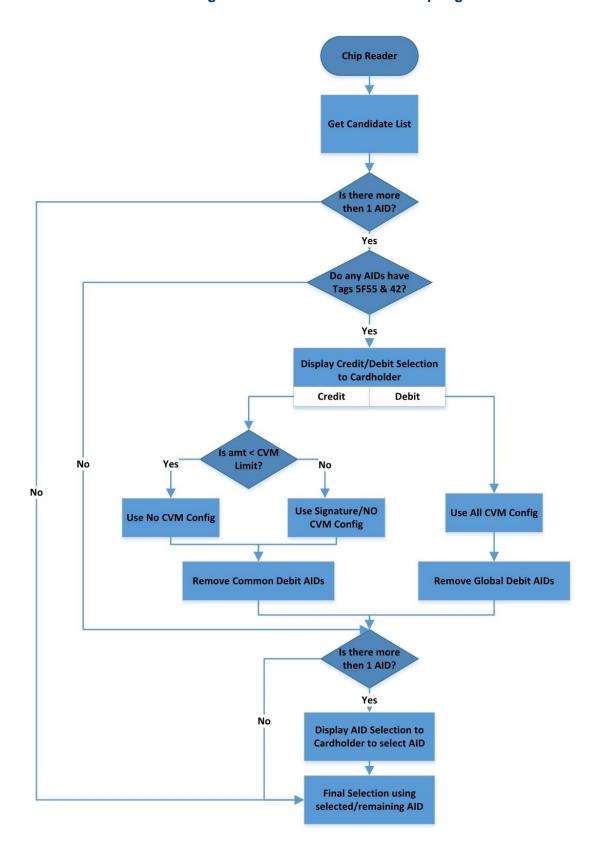
The kernel can now select the AID on the chip and Final Selection ends.

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 USA Debit EMV Test Card Set Profiles 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:

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

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

DD.**AAAA**.C**xx**-T**yy**, where:

DD is:

PP - PIN Preferring

CD - Credit/Debit

AAAA is:

MCCL - Merchant Controlled Candidate List)

SEAS - Standard EMV Application Selection

Cxx is:

The Card 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 Type

Type: 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 <u>not</u> 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, A0000000980840

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. "A0000000980840" 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.

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

Card	Application 1	Application 2	Application 3	Application 4
	A000000031010	A000000980840		
04	Debit	Debit		
01	Visa Debit	US Debit		
	4761739001010135	4761739001010135		
	A000000980840			
00	Debit			
02	US Debit			
	4761739001010135			
	A00000003101001	A00000003101002	A000000980840	
00	Credit	Debit	Debit	
03	Visa Credit	Visa Debit	US Debit	
	4761739001010176	4761739001010135	4761739001010135	
	A000000033010			
0.4	Debit			
04	Interlink			
	4761739001010671			
	A0000000041010	A0000000042203		
0.5	Debit	Debit		
05	Mastercard Debit	US Maestro		
	5413330089099130	5413330089099130		
	A0000000043060	A000000043060		
	D0561111	D0562222		
06	Debit	Debit		
	Maestro1	Maestro2		
	67999989000002010	67999989000002028		
	A000000041010	A000000043060		
	Credit	Debit		
07	Mastercard	Maestro		
	5413330089020060	6799998900000200051		
	A0000000042203	A0000000042203		
	D0561111	D0562222		
08	Debit	Debit		
	US Checking	US Savings		
	5413330089099007	5413330089099015		
	A0000000041010	A0000000043060	A0000000042203	
00	Credit	Debit	Debit	
09	Mastercard	Maestro	US Maestro	
	5413330089020060	6799998900000200051	6799998900000200051	
	A0000000042203			
40	Debit			
10	US Maestro			
	5413330089099130			
	A0000000041010	A000000004220301	A000000043060	A000000004220302
4.4	Debit	Debit	Debit	Debit
11	Mastercard Debit	US Checking	Maestro	US Savings
	5413330089020060	5413330089020060	6799998900000200051	6799998900000200051

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

Card	Application 1	Application 2	Application 3	Application 4
12	A0000001524010	A0000001523010		
	Debit	Debit		
	US Debit	Discover Debit		
	6011973700000005	6011973700000005		
13	A0000001524010			
	Debit			
	US Debit			
	6011973700000005			
14	A0000006200620			
	Debit			
	DNA			
	4000000000000028			
15	A0000002771010			
	Debit			
	Interac			
	1967302839018644			
16	A0000002771010			
	Debit			
	Interac			
	4506445006931933			

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, A0000000980840

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 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

Comments:

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:

- 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:

- 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

Comments:

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 not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Prompts the user to enter a PIN

Pre-Requisites:

- Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A0000000980840
- 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 <u>not</u> 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

Comments:

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, A0000000980840
- 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 <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. User is <u>not</u> 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. "A0000000980840" AID selected was 'US Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "No signature required" No CVM was used

Comments:

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 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 AID: A0000000980840

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:

- User is <u>not</u> 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

Comments:

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:

- 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 <u>not</u> 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

Comments:

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:

- 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, A0000000980840

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

Comments:

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:

- 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, A0000000980840

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
- 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

Comments:

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:

- 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, A0000000980840
- 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 <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Visa Credit' and 'US Debit' only
- User is able to select 'US Debit'
- 4. When PIN is <u>not</u> entered the transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000980840" AID selected was 'US Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used

Comments:

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 <u>not</u> 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

Comments:

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, A0000000042203

Steps:

- 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 <u>not</u> prompted to select 'Credit' or '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. "9130" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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, A0000000042203
- 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 <u>not</u> 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
- 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

Comments:

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, A0000000042203
- 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 <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. "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

Comments:

3.3.9.14 PP.MCCL.C05-T04

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203
- 4. Contactless CVM Floor limit is above \$20

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. User is not prompted to enter a PIN
- 4. The 'US Maestro' application is automatically selected
- 5. The transaction is approved
- 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

Comments:

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

Comments:

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: A0000000043060

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
- 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

Comments:

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'
- 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

Comments:

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'
- User is able to select 'Mastercard'
- 4. The transaction is approved
- 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

Comments:

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'
- User is able to select 'Maestro'
- 4. The transaction is approved
- 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

Comments:

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: A0000000042203

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

Comments:

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: A0000000042203
- 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:

- User is <u>not</u> 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
- 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

Comments:

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: A0000000042203

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

Comments:

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: A0000000042203
- 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
- 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
- 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

Comments:

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:

- 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: A0000000041010, A0000000043060 and A0000000042203

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> 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

Comments:

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:

- 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: A0000000041010, A0000000043060 and A0000000042203
- 4. PIN Bypass is supported

Steps:

- 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:

- User is <u>not</u> 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 <u>not</u> entered the transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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

Comments:

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:

- 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, A0000000043060 and A0000000042203

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 <u>not</u> 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

Comments:

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:

- 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: A0000000041010, A0000000043060 and A0000000042203
- 4. PIN Bypass is supported

Steps:

- 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:

- User is <u>not</u> 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 <u>not</u> entered the transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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

Comments:

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:

- User is <u>not</u> prompted to select 'Credit' or '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. "9130" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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:

- Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A0000000042203
- 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 <u>not</u> 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

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 <u>not</u> 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203
- 4. PIN Bypass is supported

Steps:

- 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
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203
- 4. PIN Bypass is supported

Steps:

- 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:

- User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 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

Comments:

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 <u>not</u> 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. "A0000001524010" AID selected was 'US Debit'
 - c. "0005" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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 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: A0000001524010, A0000001523010
- 4. PIN Bypass is supported

Steps:

- 1. Start a Purchase transaction for \$79.00
- 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 <u>not</u> 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

Comments:

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 <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. "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

Comments:

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 <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: 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 <u>not</u> 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

Comments:

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:

- User is <u>not</u> 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. "A0000001524010" AID selected was 'US Debit'
 - c. "0005" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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 <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: 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 <u>not</u> 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
- 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

Comments:

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:

- 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
- The DNA application is automatically selected
- 4. The transaction is approved / declined *
- 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:

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

Comments:

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

3.3.9.42 PP.MCCL.C16-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 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 <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Interac' application is automatically selected
- 4. The transaction is approved
- 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
- Terminal supports the following AIDs: A000000031010, A0000000980840

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:

- User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Visa Debit' and 'US Debit'
- 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

Comments:

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:

- Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000031010, A0000000980840

Steps:

- 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. "A0000000980840" AID selected was 'US Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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, A0000000980840
- 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'
- User is able to select 'US Debit'
- 4. The transaction is approved
- 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

Comments:

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 not prompt for Application Selection
- 3. Automatically selects the 'Visa Debit' application
- 4. Uses Signature as the CVM for the transaction

Pre-Requisites:

- Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A0000000980840
- 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 <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "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

Comments:

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, A0000000980840
- 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 <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "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

Comments:

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 <u>not</u> 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

Comments:

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:

- Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A0000000980840
- 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 <u>not</u> 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

Comments:

3.3.10.8 PP.SEAS.C03-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

3.3.10.9 PP.SEAS.C03-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 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

Comments:

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

Comments:

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, A0000000980840
- 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 <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 'US Debit'
- 4. The transaction is approved
- 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

Comments:

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 <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> 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

Comments:

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 not prompt for Credit or Debit
- 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, A0000000042203

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'
- 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

Comments:

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, A0000000042203

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
- 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

Comments:

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 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. 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, A0000000042203
- 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

Comments:

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203
- 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 <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> 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

Comments:

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 <u>not</u> 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, A0000000042203
- 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

Comments:

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: A0000000043060

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'
- User is able to select 'Maestro1'
- 4. The transaction is approved
- 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

Comments:

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: A0000000043060

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

Comments:

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'
- User is able to select 'Mastercard'
- 4. The transaction is approved
- 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

Comments:

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 <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- User is able to select 'Mastercard'
- 4. The transaction is approved
- 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

Comments:

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'
- User is able to select 'Maestro'
- 4. The transaction is approved
- 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

Comments:

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: A0000000042203

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

Comments:

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: A0000000042203
- 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:

- User is <u>not</u> 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
- The transaction is approved
- 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

Comments:

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: A0000000042203

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
- 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

Comments:

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: A0000000042203
- 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
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 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'
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203
- 4. PIN Bypass is supported

Steps:

- 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 <u>not</u> entered the transaction continues with No CVM or Signature
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

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'
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

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'
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203
- 4. PIN Bypass is supported

Steps:

- 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'
- User is able to select 'US Maestro'
- 4. When PIN is <u>not</u> entered the transaction continues with No CVM or Signature
- The transaction is approved
- 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

Comments:

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: A0000000042203

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 <u>not</u> prompted to select 'Credit' or '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. "9130" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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 not prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Allows the user to bypass PIN entry

Pre-Requisites:

- Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A0000000042203
- 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 <u>not</u> 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

Comments:

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: A0000000041010, A0000000043060 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

Comments:

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
- Terminal supports the following AIDs: A0000000041010, A0000000043060 and A000000042203
- 7. PIN Bypass is supported

Steps:

- 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'
- User is able to select 'Mastercard Debit'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- The transaction is approved
- 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

Comments:

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: A0000000041010, A0000000043060 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

Comments:

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: A0000000041010, A0000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

- 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'
- User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- The transaction is approved
- 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

Comments:

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: A0000000041010, A0000000043060 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

Comments:

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: A0000000041010, A0000000043060 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'
- 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

Comments:

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: A0000000041010, A0000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

- 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'
- 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
- 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

Comments:

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 not 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
- 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

Comments:

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 not 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
- 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

Comments:

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 <u>not</u> 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
- 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

Comments:

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 not 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'
- User is able to select 'Discover Debit'
- 4. The transaction is approved
- 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

Comments:

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 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 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 <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. "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

Comments:

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 <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 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
- 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

Comments:

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 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 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:

- User is <u>not</u> 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. "A0000001524010" AID selected was 'US Debit'
 - c. "0005" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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 <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: 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 <u>not</u> 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

Comments:

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
- Prompts the user to enter a PIN

Pre-Requisites:

- 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
- The 'DNA' application is automatically selected
- 4. The transaction is approved *
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A0000006200620" AID selected was 'DNA'
 - c. "0028" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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

3.3.10.50 PP.SEAS.C15-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Comments:

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

3.3.10.51 PP.SEAS.C16-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 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 <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Interac' application is automatically selected
- 4. The transaction is approved
- 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, A0000000980840

Steps:

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

Comments:

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, A0000000980840

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 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

Comments:

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:

- 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, A0000000980840
- 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 <u>not</u> 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

Comments:

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, A0000000980840
- 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 <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- User is <u>not</u> 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. "A0000000980840" AID selected was 'US Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "No signature required" No CVM was used

Comments:

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: A0000000980840

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'
- User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 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

Comments:

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:

- 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
- 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

Comments:

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, A0000000980840

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

Comments:

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, A0000000980840

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'
- 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

Comments:

3.3.11.9 CD.MCCL.C03-T03

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A0000000980840

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 <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. "A0000000980840" AID selected was 'US Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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

Comments:

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 <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, A0000000042203

Steps:

- 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 <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. "9130" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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 <u>not</u> 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, A0000000042203

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The '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

Comments:

3.3.11.13 CD.MCCL.C05-T03

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

Type: Contactless

Purpose:

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

- 1. Does not prompt for Credit or Debit
- 2. Does 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, A0000000042203
- 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 <u>not</u> prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 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

Comments:

3.3.11.14 CD.MCCL.C05-T04

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

Type: Contactless

Purpose:

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

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 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, A0000000042203
- 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
- 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

Comments:

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
- 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

Comments:

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: A0000000043060

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'
- User is able to select 'Maestro2'
- 4. The transaction is approved
- 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

Comments:

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'
- User is able to select 'Mastercard'
- 4. The transaction is approved
- 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

Comments:

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
- 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'
- User is able to select 'Mastercard'
- 4. The transaction is approved
- 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

Comments:

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'
- User is able to select 'Maestro'
- 4. The transaction is approved
- 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

Comments:

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: A0000000042203

Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 08
- 3. When prompted, select 'Credit'

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted with an error message relevant for an 'Empty Candidate List' outcome
- 3. The transaction is not processed as a chip transaction

Comments:

Fallback processing is out of scope of this test plan

3.3.11.21 CD.MCCL.C08-T02

CD.MCCL.C08-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 08 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- User is able to select 'US Checking'
- 4. The transaction is approved
- 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

Comments:

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: A0000000042203

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
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 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'
- 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

Comments:

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 <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, A0000000043060 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 not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- The transaction is approved
- 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

Comments:

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 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 AID: A0000000042203

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

Comments:

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:

- Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A0000000042203

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:

- 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
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

Steps:

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

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

Steps:

- Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

Steps:

- Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 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
- 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

Comments:

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 <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: 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 <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. "A0000001524010" AID selected was 'US Debit'
 - c. "0005" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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 <u>not</u> 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 <u>not</u> 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

Comments:

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

Comments:

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:

- 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
- 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

Comments:

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
- When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

Pass Criteria:

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

Comments:

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

3.3.11.37 CD.MCCL.C16-T01

CD.MCCL.C16-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 16 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 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
- When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 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, A0000000980840

Steps:

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

Comments:

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:

- Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000031010, A0000000980840

Steps:

- 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. "A0000000980840" AID selected was 'US Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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 not 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, A0000000980840
- 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 <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "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

Comments:

3.3.12.4 CD.SEAS.C01-T04

CD.SEAS.C01-T04 Credit/Debit Prompting, Standard EMV Application Selection Card 01 - Test 04

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A0000000980840
- 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 <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "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

Comments:

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: A0000000980840

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:

- User is <u>not</u> 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

Comments:

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:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is <u>not</u> prompted to select an application
- The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 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

Comments:

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, A0000000980840

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

Comments:

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, A0000000980840

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'
- 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

Comments:

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, A0000000980840

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. "A0000000980840" AID selected was 'US Debit'
 - c. '0135 last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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

Comments:

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, A0000000042203

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'
- User is able to select 'Mastercard'
- 4. The transaction is approved
- 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

Comments:

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, A0000000042203

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

Comments:

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203
- 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 <u>not</u> 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

Comments:

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 <u>not</u> 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, A0000000042203
- 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
- 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

Comments:

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

Comments:

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: A0000000043060

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:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- 3. User is able to select 'Maestro2'
- 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

Comments:

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, A0000000043060

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'
- User is able to select 'Mastercard'
- 4. The transaction is approved
- 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

Comments:

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, A0000000043060

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'
- User is able to select 'Mastercard'
- 4. The transaction is approved
- 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

Comments:

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, A0000000043060

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'
- 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

Comments:

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: A0000000042203

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

Comments:

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'
- 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

Comments:

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'
- 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

Comments:

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: A0000000042203

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'
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

Steps:

- Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 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'
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

Steps:

- 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'
- The transaction is approved
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

Steps:

- Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 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'
- 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

Comments:

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: A0000000042203

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:

- User is <u>not</u> prompted to select 'Credit' or '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. "9130" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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:

- Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A0000000042203

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:

- 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
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

Steps:

- Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 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'
- User is able to select 'Mastercard Debit'
- 4. The transaction is approved
- 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

Comments:

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: A0000000041010, A0000000043060 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
- 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:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- User is able to select 'Mastercard Debit'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 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

Comments:

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
- 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: A0000000041010, A0000000043060 and A0000000042203

Steps:

- Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 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'
- The transaction is approved
- 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

Comments:

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: A0000000041010, A0000000043060 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
- 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:

- User is prompted to select 'Credit' and 'Debit'
- User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- The transaction is approved
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

Steps:

- 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'
- User is able to select 'Maestro'
- 4. The transaction is approved
- 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

Comments:

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: A0000000041010, A0000000043060 and A0000000042203

Steps:

- Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 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
- 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

Comments:

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: A0000000041010, A0000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

- Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 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:

- User is prompted to select 'Credit' and 'Debit'
- User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- User is able to select 'US Savings'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- The transaction is approved
- 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

Comments:

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
- 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

Comments:

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

Comments:

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

Comments:

3.3.12.39 CD.SEAS.C12-T04

CD.SEAS.C12-T04 Credit/Debit Prompting, Standard EMV Application List Card 12 - Test 04

Type: Contactless

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 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

Comments:

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 <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 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 <u>not</u> 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
- 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

Comments:

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

Comments:

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:

- 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:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is <u>not</u> prompted to select an application
- The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 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

Comments:

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:

- 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
- When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- User is not prompted to select an application
- The 'DNA' application is automatically selected
- 4. The transaction is approved *
- 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:

- Start a Purchase transaction for \$30.00
- 2. When prompted for card entry, insert Test Card 15
- 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 'Interac' application is automatically selected
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A0000002771010" AID selected was 'Interac'
 - c. "8644" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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

3.3.12.45 CD.SEAS.C16-T01

CD.SEAS.C16-T01 Credit/Debit Prompting, Standard EMV Application List Card 16 - Test 01

Type: Contact

Purpose:

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

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does not prompt for Application Selection
- 3. Automatically selects the 'Interac' application
- 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
- 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 cards have a '1xxxxx' BIN range. These cards are supported by all Canadian processors but are not yet supported by all U.S. and international processors.

*** Check with your acquirer account representative to determine if the Interac Flash BIN range is supported by their development host. If your processor does not yet support Interac Flash, the card will function properly at the POS but it will not obtain a host approval. ***

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: b2ps.com/b2-university

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











	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	A0000000980840	A00000003101001 A000000003101002 A0000000980840
PAN on plastic	4761 7390 0101 0135	4761 7390 0101 0135	4761 7390 0101 0176
Expiry Date	12/2022	12/2022	12/2022
Service Code	201	201	201
Interface Contact, Contactless, MSR		Contact, MSR	Contact, MSR
CVM See card definition		See card definition	See card definition
Approval Amount	\$10.00	\$10.00	\$10.00
Issuer Country Code	840 - USA	840 - USA	840 - USA
Application Currency Code	840 - USD	840 - USD	840 - USD
Language	'en' - English	'en' - English	'en' - English
Card Version	v4.x	v4.x	v6.x

	Test Card 04	Test Card 05	Test Card 06
Brand	Visa	Mastercard	Mastercard
Description (Card + types)	Interlink	Global / Common	Maestro Dual-Funding
AID list	A000000033010	A0000000041010 A0000000042203	A0000000043060 D0561111 A000000043060 D05621222
PAN on plastic	4761 7390 0101 0671	5413 3300 8909 9130	5413 3300 0000 2010
Expiry Date 12/2022		12/2025	12/2025
Service Code	201	201	220
Interface	ce Contact, MSR		Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	Approval Amount \$10.00		\$20.00
Issuer Country Code 840 - USA		840 - USA	840 - USA
Application Currency Code 840 - USD		840 - USD	840 - USD
Language	'en' - English	'en' - English	'en' - English
Card Version	v4.x	v5.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	A000000042203 D0561111 A000000042203 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	ce Contact, MSR		Contact, MSR	
CVM See card definition		See card definition	See card definition	
Approval Amount \$20.00		\$20.00	\$20.00	
Issuer Country Code 826 - GBR		840 - USA	840 - USA	
Application Currency Code 826 - GBP		840 - USD	840 - USD	
Language 'en' - English		'en' - English	'en' - English	
Card Version v5.x		v5.x	v5.x	

	Test Card 10	Test Card 11	Test Card 12
Brand	Mastercard	Mastercard	Discover
Description	U.S. Maestro	MC+U.S. Maestro / Maestro+U.S. Maestro	Discover U.S. Debit / Discover
AID list	A0000000042203	A0000000041010 A000000004220301 A0000000043060 A000000004220302	A0000001524010 A0000001523010
PAN on plastic	5413 3300 8909 9130	5413 3300 8909 0060	6011 9737 0000 0005
Expiry Date	Expiry Date 12/2025		12/2023
Service Code	201	201	201
Interface	Interface Contact, MSR		Contactless, Contact, MSR
CVM See card definition		See card definition	See card definition
Approval Amount	\$20.00	\$20.00	\$79.00
Issuer Country Code	840 - USA	840 - USA	840 - USA
Application Currency Code			840 - USD
Language	'en' - English	'en' - English	'enesfr' (English, Spanish, French)
Card Version	v6.x	v5.x	v5.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 0005	4000 0000 0000 0028	1967 3028 3901 8644
Expiry Date	12/2023	12/2025	12/2022
Service Code	201	201	220
Interface Contact, MSR		Contact, MSR	Contactless, Contact, MSR
CVM	M See card definition		See card definition
Approval Amount	roval Amount \$79.00		\$30.00
Issuer Country Code 840 - USA		840 - USA	124 - CAN
Application Currency Code 840 - USD		840 - USD	124 -CAD
Language	'en' - English	'en' - English	'en' - English
Card Version	v5.x	v5.x	v4.x

	Test Card 16
Brand	Interac
Description	Canadian Debit
AID list	A0000002771010
PAN on plastic	4506 4450 0693 1933
Expiry Date	12/2022
Service Code	220
Interface	Contact, MSR
CVM	See card definition
Approval Amount	\$30.00
Issuer Country Code	124 - CAN
Application Currency Code	124 - CAD
Language	'en' - English
Card Version	v5.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	
8	Fail CVM Processing	Always	Fail	

4.1.2 Contact: Application Tag data, AID A000000031010

Tag	Element name	Data Card v4.x
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	56 49 53 41 20 44 45 42 49 54 - 'VISA
		DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01
	A !! .! B ! A (A)	19 55 94 58 00 00 0F 47 61 73 90 01 01 01 35
5A	Application Primary Account Number	47 61 73 90 01 01 01 35
55.00	(PAN)	FF F2 41 00 44 4F 40 40 F4 07 F4 6F
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 30 31 20 20
		20 20 - 'USA DEBIT/Test Card 01'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VSDC]	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported using
		External Authenticate command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - Mag-stripe mode NOT supported
		b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10
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

Tag Element name Data Card v4.x 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 8D Card Risk Management Data Object List 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 2 (CDOL2) 0A 00 00 00 00 00 00 00 00 02 01 42 04 8E Cardholder Verification Method (CVM) 1E 04 02 05 5E 00 42 00 1F 00 94 Application File Locator (AFL) 08 01 02 00 FF 80 9F 07 **Application Usage Control** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed 00 96 9F 08 **Application Version Number** FC 50 AC 88 00 9F 0D Issuer Action Code - Default 00 00 00 00 00 9F 0E Issuer Action Code - Denial FC 70 BC 98 00 9F 0F Issuer Action Code - Online 9F 10 Issuer Application Data [VSDC] xx xx A0 xx xx xx xx * 9F 11 01 Issuer Code Table Index 56 69 73 61 20 44 65 62 69 74 20 20 9F 12 Application Preferred Name 20 20 20 - 'Visa Debit' 9F 13 Last Online Application Transaction xx xx * Counter (ATC) Register Personal Identification Number (PIN) 01 9F 17 Try Counter 9F 26 Application Cryptogram (AC) xx xx xx xx xx xx xx ** 80 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) xx xx * 9F 42 08 40 - USD **Application Currency Code** 02 9F 44 **Application Currency Exponent** 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 9F 4F **Transaction Log Format** 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 9F 56 80 Issuer Authentication Indicator [VSDC] Issuer Country Code [VSDC] 08 40 - USA 9F 57 00 00 00 00 00 00 9F 5D Available Offline Spending Amount [VSDC] 10 00 10 00 9F 68 Card Additional Processes [qVSDC **VCPS 2.1**] BF 55 Contactless Counters Data Template BF 56 Counters Data Template BF 57 International Counters Data Template BF 58 Amounts Data Template BF 59 **Profile Controls Template**

^{*} Tag value changes with card usage

4.1.3 Contact: CVM List - U.S. Debit, AID A000000980840

Cardhol	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 v4.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 21 22 01
		19 55 94 58 00 00 OF
5A	Application Primary Account Number	47 61 73 90 01 01 01 35
	(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 31 20 20
EE 04	Application Expiration Data	20 20 - 'USA DEBIT/Test Card 01'
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	
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VSDC]	18 00
		BYTE 1: b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported using
		External Authenticate command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 98 08 40
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
30	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
טט		05 5F 2A 02 9A 03 9C 01 9F 37 04 91
	2 (CDOL2)	0A
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 01 02 05
	List	42 00 1F 00 00 00 00 00
94	Application File Locator (AFL)	08 01 02 00

9F 07	Application Usage Control	AB 80
		BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions NOT valid
		b6 - Domestic goods valid
		b5 - International goods NOT valid
		b4 - Domestic services valid
		b3 - International services NOT valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 96
9F 0D	Issuer Action Code - Default	FC 50 AC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC 70 BC 98 00
9F 10	Issuer Application Data [VSDC]	xx xx A0 xx xx xx xx *
		01
9F 11	Issuer Code Table Index	
9F 12	Application Preferred Name	55 53 20 44 65 62 69 74 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)	01
	Try Counter	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List	9F 06 05
91 30	(PDOL)	
05.40	,	08 40 - USD
9F 42	Application Currency Code	
9F 44	Application Currency Exponent	02
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
05.51	A 11 11 0 0 1 11 10 10 10 10 10 10 10 10	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
0, 00	[VSDC]	
9F 68		10 00 80 00
95 00	Card Additional Processes [qVSDC	10 00 00 00
DE	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
םני ום	Application internal Data Template	

^{*} Tag value changes with card usage

4.1.5 Contactless: Application Tag data, AID A000000031010

Tag	Element name	Data Card v4.x
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	56 49 53 41 20 44 45 42 49 54 - 'VISA DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01 19 55 94 58 00 00 1F

		T.=
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 24	Application Expiration Date	22 12 31
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VCPS]	00 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification NOT supported b4 - Terminal risk mgmt NOT to be performed
		b3 - Issuer authentication NOT supported using
		External Authenticate command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - Mag-stripe mode NOT supported
84	Dedicated File (DF) Name	b7 - Is NOT Mobile phone
87	Application Priority Indicator	01
94	Application File Locator (AFL)	08 03 03 00
9F 07	Application Usage Control [VCPS]	C0 80
01 07	The production coage control [ver o]	BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods NOT valid
		b5 - International goods NOT valid b4 - Domestic services NOT valid
		b3 - International services NOT valid
		b2 - ATMs NOT valid
		b1- Terminals other than ATMs NOT valid
		BYTE 2:
		b8 - Domestic cashback allowed
9F 10	Issuer Application Data [VSDC]	b7 - International cashback NOT allowed
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	56 69 73 61 20 44 65 62 69 74 20 20
31 12	Application i referred Name	20 20 20 - 'Visa Debit'
9F 13	Last Online Application Transaction	xx xx *
	Counter (ATC) Register	
9F 17	Personal Identification Number (PIN)	01
	Try Counter	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List	9F 66 04 9F 02 06 9F 03 06 9F 1A 02
	(PDOL)	95 05 5F 2A 02 9A 03 9C 01 9F 37 04
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
9F 51	Application Currency Code IVSDC1	1A 02 95 05 9C 01 9F 27 01 08 40 - USD
9F 51	Application Currency Code [VSDC] Application Default Action [VSDC VIS	00 00 00 00
9F 3Z	Application Default Action [VSDC VIS 1.5]	
9F 57	Issuer Country Code [VSDC]	08 40 - USA
9F 5A	Application Program Identifier	11 08 40 08 40
9F 5D	Available Offline Spending Amount	00 00 00 00 00 00
	[VSDC]	
9F 68	Card Additional Processes [qVSDC	10 00 10 00
	VCPS 2.1]	
		•

9F 69	Card Authentication Related Data [qVSDC]	01 00 00 00 00 00 00 LAST TWO BYTES BYTE 1:" b8 - Online PIN NOT required b7 - Signature NOT required b6 - Do NOT go online if Offline Data Authentication fails and Reader is online capable b5 - Do NOT switch interface if Offline Data Authentication fails and Reader supports contact chip b4 - Do NOT go Online if Application Expired b3 - Do NOT switch interface for Cash Transactions b2 - Do NOT switch interface for Cashback Transactions b1 - Is valid for contactless ATM transactions BYTE 2: b8 - Consumer Device CVM NOT performed b7 - Card does NOT Support Issuer Update Processing at POS b2 - NOT valid at ATMs
9F 6C	Card Transaction Qualifiers [qVSDC VCPS 2.1]	00 00
9F 6E	Form Factor Indicator [qVSDC]	20 70 00 00
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	
BF 5A	AIP/AFL Entries Template	
BF 5B	Application Internal Data Template	DF 01 02 00 00

^{*} Tag value changes with card usage

4.1.6 Contactless: Application Tag data, AID A000000980840

Tag	Element name	Data Card v4.x
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	55 53 20 44 45 42 49 54 - 'VISA DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01 19 55 94 58 00 00 1F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 24	Application Expiration Date	22 12 31
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VCPS]	00 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification NOT supported b4 - Terminal risk mgmt NOT to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 98 08 40
87	Application Priority Indicator	02

94	Application File Locator (AFL)	08 03 03 00
9F 07	Application Usage Control [VCPS]	C0 80
51 07	/ Application esage control [vol e]	BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods NOT valid
		b5 - International goods NOT valid
		b4 - Domestic services NOT valid
		b3 - International services NOT valid
		b2 - ATMs NOT valid
		b1- Terminals other than ATMs NOT valid BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback NOT allowed
9F 10	Issuer Application Data [VSDC]	xx xx A0 xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 44 65 62 69 74 20 20 20 20
91 12	Application Freieneu Name	20 20 20 20 - 'US Debit'
9F 13	Last Online Application Transaction	xx xx *
01 10	Counter (ATC) Register	
9F 17	Personal Identification Number (PIN)	01
51 17	Try Counter	_
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 26	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
		9F 66 04 9F 02 06 9F 03 06 9F 1A 02
9F 38	Processing Options Data Object List	95 05 5F 2A 02 9A 03 9C 01 9F 37 04
05.45	(PDOL)	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
9F 4F	Transaction Log Format	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
01 02	1.5]	
9F 57	Issuer Country Code [VSDC]	08 40 - USA
9F 5A	Application Program Identifier	11 08 40 08 40
9F 5D	Available Offline Spending Amount	00 00 00 00 00 00
0.02	[VSDC]	
9F 68	Card Additional Processes [qVSDC	10 00 80 00
	VCPS 2.1]	
9F 69	Card Authentication Related Data	01 00 00 00 00 00
	[qVSDC]	LAST TWO BYTES
	L - J	BYTE 1:
		b8 - Online PIN NOT required
		b7 - Signature NOT required
		b6 - Do NOT go online if Offline Data
		Authentication fails and Reader is online
		capable b5 - Do NOT switch interface if Offline Data
		Authentication fails and Reader supports
		contact chip
		b4 - Do NOT go Online if Application Expired
		b3 - Do NOT switch interface for Cash
		Transactions
		b2 - Do NOT switch interface for Cashback
		Transactions
		b1 - Is valid for contactless ATM transactions
		BYTE 2: b8 - Consumer Device CVM NOT performed
		b7 - Card does NOT Support Issuer Update
		Processing at POS
		b2 - NOT valid at ATMs
9F 6C	Card Transaction Qualifiers [qVSDC	00 00
	VCPS 2.1]	
	<u>-</u>	·

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

4.2 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 - A0000000980840

Cardhol	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 A0000000980840

Tag	Element name	Data Card v4.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 21 22 01 19 55 94 58 00 00 0F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 30 32 20 20 20 - 'USA DEBIT/Test Card 02'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VSDC]	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using
		External Authenticate command b1 - Combined DDA / GEN AC NOT supported

BYTE 2 Bit Mag-stripe mode NOT supported b7 - Is NOT Mobile phone NOT supported NOT s	Tag	Element name	Data Card v4.x
B4			
84			
87		B # 15# (B5) N	
SC			
1 (CDOL1)			
Section Card Risk Management Data Object List 2 (CDOL2) Section Se	80		
Section Sect	8D		
SE	OD		
List	8E		00 00 00 00 00 00 00 00 02 01 00 04
Ssuer Public Key Certificate			02 05 42 00 1F 00
BD E9 21 66 B0 F6 22 1B BC CB 02 E3	8F	Certification Authority Public Key Index	92
26	90	Issuer Public Key Certificate	
4C 06 85 91 6E 19 F0 E3 26 93 8E 20 18 CE 23 59 50 9A 6D 65 72 F8 EC 3F C3 73 12 6B 34 3F 9C B8 15 3D 61 BF C8 23 59 50 9A 6D 65 72 F8 EC 3F C3 73 12 6B 34 3F 9C B8 15 3D 61 BF 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 1B B7 53 C2 46 EF FB A0 8P FD 20 29 BAD 5D FC F0 DA F0 7B 7D 80 1C 46 5F FD 25 C7 0 B9 21 53 B3 30 P5 50 CA 2F A1 FA AE 2D 01 68 A4 EA 8B 47 5C D8 05 D3 9A D6 EA 76 1B CD 2C D5 D0 30 9A D6 EA 76 1B CD 2C D5 D0 30 9A D6 EA 76 1B CD 2C D5 D0 30 9A D6 EA 76 1B CD 2C D5 D0 30 9A D6 EA 76 1B CD 2C D5 D0 30 9A D6 EA 76 1B CD 2C D5 D0 30 9A D6 EA 76 1B CD 2C D5 D0 30 9A D6 EA 76 1B CD 2C D5 D0 30 9A D6 EA 76 1B CD 30 9A D7 F7 8F 79 E7 79 E		-	
B CE 23 59 50 9A 60 65 72 F8 EC 3F C3 73 12 6B 34 3F 9C B8 15 30 61 B7 EA B2 24 2D E1 9D 56 08 13 35 50 61 B7 EA B2 24 2D E1 9D 56 08 31 85 A0 31 B1 A0 A0 B2 B2 BC E4 C2 D0 10 A9 4F 80 B2 BC E4 C2 D0 10 A9 4F 80 D5 B2 E5 E5 E5 E5 E5 E5 E5 E			
Ea B2 D4 2D E1 9D 56 08 31 85 A0 3D D1 4C 26 BD 40 DF 08 35 C5 E 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 75 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 75 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 75 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 75 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 75 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 75 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 75 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 75 CA 2F A1 FA			
D1			C3 73 12 6B 34 3F 9C B8 15 3D 61 B7
38 ED 28 BC E4 2C DO 01 3D A9 4F 80			
05 18 B7 53 C2 46 EF FB A0 8F D2 02			
SF FD 25 2C 70 89 21 53 83 30 0P 5D			
Ca 2F A1 FA AE 2D 01 68 A4 EA 8B 47 5C DB 05 DC 32 AA 96 4C TB BC CD 2C D5 D0 30 9A B0 EA 76 1B			9B AD 5D FC F0 DA F0 7B 7D 80 1C 46
Sc D8 05 DC 32 AA 96 4C 17 BF CD 2C D5 D0 30 9A B0 EA 76 1B			
15			
92			
68 31 BA 1E EA 97 F7 8F 79 2A CF 8C B9 8F D0 1 49 A7 B7 8F DA 1C 49 67	92	Issuer Public Kev Remainder	
Application File Locator (AFL)			68 31 BA 1E EA 97 F7 8F 79 2A CF 8C
Application Usage Control AB 80 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b6 - Domestic services valid b5 - International services NOT valid b6 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b2 - ATMs valid b1 - Terminals other than ATMs valid b2 - ATMs valid b1 - Terminals other than ATMs valid b2 - AT			
BYTE 1:			
b8 - Domestic cash transactions valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b5 - International goods NOT valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allow	9F 07	Application Usage Control	
b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International goods NOT valid b3 - International services NOT valid b2 - ATMs valid b1 - Terminals other than ATMs valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2			- · · - · ·
b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b3 - International services NOT valid b3 - International services NOT valid b2 - ATMS valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed b7 - Internatio			
b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT al			
b3 - International services NOT valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT all			
D1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed b7 - Inte			
BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed 9F 0D Issuer Action Code - Default FC 50 AC 88 00			
B8 - Domestic cashback allowed b7 - International cashback NOT allowed b7 - Internation			
B7 - International cashback NOT allowed 9F 08 Application Version Number 00 96 9F 0D Issuer Action Code - Default FC 50 AC 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 00 00 00 9F 0F Issuer Action Code - Online FC 70 BC 98 00 9F 10 Issuer Application Data [VSDC] xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx			
9F 08 Application Version Number 00 96 9F 0D Issuer Action Code - Default FC 50 AC 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online FC 70 BC 98 00 9F 10 Issuer Application Data [VSDC] XX XX A0 XX			
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	9F 08	Application Version Number	
9F 0E Issuer Action Code - Denial 00 00 00 00 00 00 9F 0F Issuer Action Code - Online FC 70 BC 98 00 9F 10 Issuer Application Data [VSDC] xx xx A0 xx			FC 50 AC 88 00
9F 10 Issuer Application Data [VSDC] xx		Issuer Action Code - Denial	00 00 00 00 00
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 Counter (ATC) Register *** *** * 9F 17 Personal Identification Number (PIN) Try Counter 03 20 20 20 20 20 20 20 20 20 20 20 20 20	9F 0F	Issuer Action Code - Online	
9F 12 Application Preferred Name 55 53 20 44 65 62 69 74 - 'US Debit' 9F 13 Last Online Application Transaction Counter (ATC) Register xx xx * 9F 17 Personal Identification Number (PIN) Try Counter 03 20 20 20 20 20 20 20 20 20 20 20 20 20			
9F 13 Last Online Application Transaction Counter (ATC) Register *** ** * * * * * * * * * * * * * * * *			
Counter (ATC) Register 9F 17 Personal Identification Number (PIN) Try Counter 20 20 20 20 20 20 20 2			
9F 17 Personal Identification Number (PIN) Try Counter 03 9F 1F Track 1 Discretionary Data 20 20 20 20 20 20 20 20 20 20 20 20 20 2	9F 13		xx xx *
Try Counter 9F 1F Track 1 Discretionary Data 20 20 20 20 20 20 20 20 20 20 20 20 20 2	05.47		0.2
9F 1F Track 1 Discretionary Data 20 20 20 20 20 20 20 20 20 20 20 20 20 2	9F 17		03
20 20 20 20 20 20 20 20 20 20 20 20 20 2	0E 1E		20 20 20 20 20 20 20 20 20 20 20 20
9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID) 9F 32 Issuer Public Key Exponent 9S 20	9F 1F	Track i Disciellollary Dala	
9F 27 Cryptogram Information Data (CID) 80 9F 32 Issuer Public Key Exponent 03	9F 26	Application Cryptogram (AC)	
9F 32 Issuer Public Key Exponent 03			80
			03
			xx xx *

Tag	Element name	Data Card v4.x
9F 44	Application Currency Exponent	02
9F 46	ICC Public Key Certificate	21 F3 FF 81 73 C5 37 DA BD F2 DB C2
	,	EB 72 94 5A 6A C6 BB E3 80 62 08 44
		25 D7 67 37 BA 98 E5 A6 64 10 81 D7
		40 C0 7B 68 00 00 55 9E DF FF 5B CA FC F5 B8 35 A9 C4 98 48 75 B5 C7 8C
		91 DO A4 80 CC CF OD 9A 2D 53 91 D2
		DC 56 53 96 08 B1 32 55 B9 56 D4 A4
		E5 D7 FB 85 EF 3C D0 9E 09 7A D2 14
		C6 0A 25 8E DF 15 B9 1C 32 9A D9 8E
		5B E9 44 7F A3 27 C6 0B 57 81 53 CF
		5A 6F 62 18 F9 44 D8 79 89 00 0E FE E3 B1 6D D7 8C FB CC EF 5C B5 EF C1
		A6 D8 1C 53 8F 16 85 0E 91 64 6A 2D
		E0 DA DC E4 17 1F 52 B1 54 F1 67 CD
		52 8A 88 E3 56 16 71 F4
9F 47	ICC Public Key Exponent	03
9F 49	Dynamic Data Authentication Data	9F 37 04
	Object List (DDOL)	
9F 4A	Static Data Authentication Tag List	82
9F 51	Application Currency Code [VSDC]	08 40 - USD
9F 52	Application Default Action [VSDC VIS	00 00 00 00 00 00
	1.5]	
9F 53	Consecutive Transaction Limit	00
0= = 4	(International) [VSDC]	00 00 00 00 00
9F 54	Cumulative Total Transaction Amount	00 00 00 00 00
9F 57	Limit [VSDC]	08 40 - USA
9F 58	Issuer Country Code [VSDC] Consecutive Transaction Counter Limit	00 40 - USA
91 30	[VSDC]	
9F 59	Consecutive Transaction Counter Upper	00
51 00	Limit [VSDC]	
9F 5C	Cumulative Total Transaction Amount	00 00 00 00 00 00
0. 00	Upper Limit [VSDC]	
9F 5E	Consecutive Transaction International	00
	Upper Limit [VSDC]	
9F 68	Card Additional Processes [qVSDC	10 00 10 00
	VCPS 2.1]	
9F 72	Consecutive Transaction Limit	00
	(International-Country) [VSDC]	
BF 55	Contactless Counters Data Template	DF 11 01 00 DF 21 01 00 DF 31 01 00
BF 56	Counters Data Template	DF 11 01 02 DF 21 01 00 DF 31 01 00
BF 57	International Counters Data Template	DF 11 01 02 DF 21 01 00 DF 31 01 00
DE 50	Amounto Data Tampiata	DF 51 01 02 DF 61 01 00
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00 DF 21 06 00 00 00 00 00 00 DF 31 06 00 00 00
		00 00 00
BF 5B	Application Internal Data Template	DF 01 02 00 00
	11	

^{*} 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

Cardho	Cardholder Verification Method List ('0201 4204 1E04 0005 5E00 1F00')			
CVM	Verification Method	Conditions	If unsuccessful	
1	Online PIN	Unattended Cash	Fail	
2	Online PIN	Manual Cash	Next CVM	
3	Signature (paper)	Manual Cash	Fail	
4	Fail CVM Processing	Purchase with Cashback	Fail	
5	Signature (paper)	Always	Next CVM	
6	No CVM required	Always	Fail	
7	Fail CVM Processing	Always	Fail	

4.3.2 Contact: Application Tag data, AID A00000003101001

Tag	Element name	Data Card v6.x
50	Application Label	56 49 53 41 20 43 52 45 44 49 54 20
		20 20 20 20 - 'VISA CREDIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 76 D2 21 22 01
		19 55 94 58 00 00 0F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 76
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 30 33 20 20
		20 20 - 'USA DEBIT/Test Card 03'
5F 24	Application Expiration Date	22 12 31
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile [VSDC]	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported using
		External Authenticate command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - Mag-stripe mode NOT supported
		b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10 01
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	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
	` ,	0A
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 01 42 04
	List	1E 04 00 05 5E 00 1F 00 00 00

Tag	Element name	Data Card v6.x
94	Application File Locator (AFL)	08 01 01 00 10 01 01 01
9F 07	Application Usage Control	FF 00
01 07	Application coage control	BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback NOT allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 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
0	, ipplication in tolera in tallic	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 *
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
	Transaction 20g remail	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
DE 55	A self-self-self-sest D to T	01 01
BF 5B	Application Internal Data Template	DF 01 02 C0 00 DF 02 01 F1

^{*} Tag value changes with card usage

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 v6.x
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	56 49 53 41 20 44 45 42 49 54 20 20
		20 20 20 - 'VISA DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01
	A 11 (1 D)	19 55 94 58 00 00 0F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 30 33 20 20
55.04	Assiltantia Essimila Data	20 20 - 'USA DEBIT/Test Card 03'
5F 24	Application Expiration 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
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VSDC]	18 00
		BYTE 1: b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported using
		External Authenticate command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10 02
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List	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
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 01 42 04
OL.	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 v6.x
9F 07	Application Usage Control	FF 80
0. 0.	rippinganen Goage Germen	BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2:
		b8 - Domestic cashback allowed
25.00		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 96
9F 0D	Issuer Action Code - Default	FC 50 AC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC 70 BC 98 00
9F 10	Issuer Application Data [VSDC]	xx xx 0A 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
0	, ipplication i rototto a riamo	20 20 20 20 - 'Visa Debit'
9F 13	Last Online Application Transaction	xx xx *
00	Counter (ATC) Register	
9F 17	Personal Identification Number (PIN)	00
01 17	Try Counter	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List	9F 06 07
31 30	(PDOL)	
9F 44		02
9F 4F	Application Currency Exponent	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
95 45	Transaction Log Format	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
31 32	1.5]	
OE EG		00
9F 56	Issuer Authentication Indicator [VSDC]	08 40 - USA
9F 57	Issuer Country Code [VSDC]	06 40 - USA
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	DF 11 0B 10 00 00 00 00 00 00 00 00
		00 00 DF 12 0B 20 00 00 00 00 00 00
		00 00 00 00
BF 5A	AIP/AFL Entries Template	DF 11 0B 18 00 08 08 01 01 00 10 01
		01 00 DF 12 0B 18 00 08 08 01 01 00 10 02 02 00
DE ED	Application Internal Data Tampleta	DF 01 02 C0 00 DF 02 01 F1
BF 5B	Application Internal Data Template	DE OT OF CO OO DE OF OIL ET

^{*} Tag value changes with card usage

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 v6.x
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	55 53 20 44 45 42 49 54 20 20 20 20
		20 20 20 - 'US DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01
		19 55 94 58 00 00 0F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 30 33 20 20
		20 20 - 'USA DEBIT/Test Card 03'
5F 24	Application Expiration Date	22 12 31
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VSDC]	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported using
		External Authenticate command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - Mag-stripe mode NOT supported
		b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 98 08 40
87	Application Priority Indicator	03
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
8D	1 (CDOL1)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95
טט	Card Risk Management Data Object List	05 5F 2A 02 9A 03 9C 01 9F 37 04 91
	2 (CDOL2)	0A
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 01 00 04
J_	List	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 v6.x
9F 07	Application Usage Control	AB 80
	The second confidence	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	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 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	A 1: (: 0	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]	100
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	DF 11 0B 10 00 00 00 00 00 00 00 00
BF 59	Profile Controls Template	00 00 DF 12 0B 20 00 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
2. 0, (, a L Limito i ompiato	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

^{*} Tag value changes with card usage

4.4 Test Card 04 - Visa, CO, 1-AID (Interlink), English, USA, USD

A contact-only, single-AID Visa Interlink debit card with an issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is \$10.00.

4.4.1 Contact: CVM List - Visa Interlink, AID A000000033010

Cardholder Verification Method List ('0203 1F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	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 v4.x
50	Application Label	49 4E 54 45 52 4C 49 4E 4B -
		'INTERLINK'
57	Track 2 Equivalent Data	47 61 73 90 01 01 06 71 D2 21 22 21
		13 50 61 46 89 00 0F 47 61 73 90 01 01 06 71
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 06 71
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
01 20	Garanolaer Name	73 74 20 43 61 72 64 20 30 34 20 20
		20 20 - 'USA DEBIT/Test Card 04'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 21
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile [VSDC]	1C 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication supported using
		External Authenticate command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - Mag-stripe mode NOT supported
0.4	Dedicated File (DF) Name	b7 - Is NOT Mobile phone A0 00 00 00 03 30 10
84	Dedicated File (DF) Name	01
87	Application Priority Indicator	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
8C	Card Risk Management Data Object List	2A 02 9A 03 9C 01 9F 37 04
8D	1 (CDOL1)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95
טט	Card Risk Management Data Object List	05 5F 2A 02 9A 03 9C 01 9F 37 04
8E	2 (CDOL2)	00 00 00 00 00 00 00 00 02 03 1F 03
0⊏	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 02 03 11 03
OE.		92
8F	Certification Authority Public Key Index	32

Data Tag Card v4.x Element name 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 50 DA 20 DD A8 95 3B 69 3F ED 84 36 92 Issuer Public Key Remainder 68 31 BA 1E EA 97 F7 8F 79 2A CF 8C 8F DF 01 49 A7 B7 8F DA 1C 49 0C 66 F5 58 76 E7 3F 44 94 4B 93 Signed Static Application Data BA 27 35 7E E8 4F 93 8B 34 FA 2F 06 BE C8 49 01 1B AE 57 8C F9 5E 92 8E 6E CC 62 72 7C C7 FD B3 0B 8C 88 31 DE AB 60 2C E1 25 D1 43 90 02 C0 C3 D8 C7 78 92 C9 7C 5A 57 73 1C 36 D6 8E 5A 0F A5 1A DC 94 09 4F A9 AB 02 DE DF 23 B4 60 F0 E1 9E 69 65 87 38 E7 4E 36 B4 08 81 44 7A 2A E0 11 EE DE OC 61 4B 41 B1 56 98 D1 55 63 05 95 A5 75 0D B7 C5 B9 22 84 0B DA 84 8B 61 D9 14 2A F8 35 7E 27 D4 92 B7 03 F1 C6 E3 D2 3C AC DC 60 E3 C7 8F 00 36 E1 0C A4 1B B7 53 6D 0F 4F C4 18 6D 5B 3D A0 44 12 10 01 01 00 10 02 04 01 10 06 06 00 94 Application File Locator (AFL) B0 01 01 00 9F 07 FF C0 **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 BYTF 2: b8 - Domestic cashback allowed b7 - International cashback allowed 00 96 9F 08 **Application Version Number** B0 50 80 88 00 9F 0D Issuer Action Code - Default 00 00 00 00 00 9F 0E Issuer Action Code - Denial Issuer Action Code - Online B0 50 80 98 00 9F 0F 9F 10 Issuer Application Data [VSDC] xx xx A0 xx xx xx * 01 9F 11 Issuer Code Table Index 9F 12 Application Preferred Name 49 6E 74 65 72 6C 69 6E 6B - 'Interlink' 9F 13 Last Online Application Transaction xx xx * Counter (ATC) Register 09 9F 17 Personal Identification Number (PIN) Try Counter 9F 1F Track 1 Discretionary Data 31 33 35 30 36 30 30 31 34 36 30 30 30 30 30 30 30 30 30 30 30 30 30 9F 26 Application Cryptogram (AC) * * * * * * * * * * * * * * 80 9F 27 Cryptogram Information Data (CID)

Tag Card v4.x Element name Data 03 9F 32 Issuer Public Key Exponent 9F 36 xx xx * Application Transaction Counter (ATC) 02 9F 44 **Application Currency Exponent** 9F 46 2F CB B2 98 34 1B A8 B3 EB 7E D3 23 ICC Public Key Certificate 63 AE 2A 27 D2 FF 39 79 D1 44 8A 87 5B D6 C1 22 8C 00 6D 3B 77 BC 8E E1 5F 53 4D 54 3D F8 D8 52 60 DA FF E1 0A 40 21 F2 55 5D 84 BA 17 48 3C 25 28 09 A6 D3 8B 1E D3 4F 03 CD 85 60 OD EA 4F 04 BF 7A 17 OC D3 61 1A 3A ED A8 AC FE E5 46 1E 70 9E 5C 82 3E 6D B4 D7 17 26 C3 78 88 93 19 61 ED 6E DD 3F 97 4F 3E D2 92 8B 16 26 20 5B EF 07 23 80 EF 6F 9E 0C 55 36 CF 63 46 EE A2 4E FB 62 81 OF 9D 61 1F 51 4F C1 A3 87 A4 1E 8D 51 72 95 CF 19 1E FA D6 A4 ED 7E 16 00 9D D2 F9 4C A4 A9 OE A7 C1 DA CF 9F 47 ICC Public Key Exponent 03 Dynamic Data Authentication Data 9F 37 04 9F 49 Object List (DDOL) 82 9F 4A Static Data Authentication Tag List 9F 51 08 40 - USD Application Currency Code [VSDC] CO 00 00 00 00 00 9F 52 Application Default Action [VSDC VIS 1.5] 9F 53 Consecutive Transaction Limit (International) [VSDC] 00 00 00 00 00 00 9F 54 **Cumulative Total Transaction Amount** Limit [VSDC] 80 9F 56 Issuer Authentication Indicator [VSDC] 08 40 - USA 9F 57 Issuer Country Code [VSDC] 9F 58 Consecutive Transaction Counter Limit 00 [VSDC] 00 9F 59 Consecutive Transaction Counter Upper Limit [VSDC] 00 00 00 00 00 00 9F 5C **Cumulative Total Transaction Amount** Upper Limit [VSDC] 00 9F 5E Consecutive Transaction International Upper Limit [VSDC] 9F 68 Card Additional Processes [qVSDC 10 00 D0 00 VCPS 2.1] 9F 6D VLP Reset Threshold [VSDC] 00 00 00 00 00 00 VLP Funds Limit [VSDC] 00 00 00 00 00 00 9F 77 9F 78 VLP Single Transaction Limit [VSDC] 00 00 00 00 00 00 00 00 00 00 00 00 VLP Available Funds [VSDC] 9F 79 DF 61 06 00 00 00 00 00 00 DF 71 06 BF 55 Contactless Counters Data Template 00 00 00 00 00 00 DF 41 06 00 00 00 00 00 00 DF 51 06 00 00 00 00 00 00 DF 11 01 00 DF 21 01 00 DF 31 01 00 DF 11 01 01 DF 21 01 00 DF 31 01 00 BF 56 Counters Data Template BF 57 DF 11 01 01 DF 21 01 00 DF 31 01 00 International Counters Data Template DF 51 01 01 **BF 58** Amounts Data Template DF 11 06 00 00 00 00 00 00 DF 21 06 00 00 00 00 00 00 DF 31 06 00 00 00 00 00 00 DF 01 02 00 00 BF 5B Application Internal Data Template

^{*} Tag value changes with card usage

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	rification Method Conditions If	
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 A0000000041010

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 09 91 30 D2 51 22 01
- A	Application Drivers Assessed Number	14 83 59 49 00 0F 54 13 33 00 89 09 91 30
5A	Application Primary Account Number (PAN)	
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 30 35 20 20
FF 0.4	Application Funitation Data	20 20 - 'USA DEBIT/Test Card 05' 25 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)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	11
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US' 18 00
82	Application Interchange Profile	BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported 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 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

Tag Element name Data Card v5.x 00 00 00 00 00 00 00 00 42 01 02 05 8E Cardholder Verification Method (CVM) 5E 03 42 03 1F 00 94 Application File Locator (AFL) 10 01 03 00 Application File Locator (AFL) 10 01 03 00 9F 07 FF CO **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 B0 50 9C 88 00 9F 0D Issuer Action Code - Default 00 00 00 00 00 9F 0E Issuer Action Code - Denial 9F 0F Issuer Action Code - Online B0 70 9C 98 00 9F 10 xx 10 xx Issuer Application Data [M/Chip xx xx xx xx xx xx * Advance] 9F 11 Issuer Code Table Index 4D 61 73 74 65 72 63 61 72 64 20 44 9F 12 **Application Preferred Name** 65 62 69 74 - 'Mastercard Debit' 9F 14 Counter 1 Lower Limit [Mastercard] 00 03 9F 17 Personal Identification Number (PIN) Try Counter იი 9F 23 Counter 1 Upper Limit [Mastercard] 9F 26 Application Cryptogram (AC) xx xx xx xx xx xx xx ** 9F 27 Cryptogram Information Data (CID) 80 xx xx * Application Transaction Counter (ATC) 9F 36 **Application Currency Code** 08 40 - USD 9F 42 0B 0A 9F 4D Transaction Log Entry 9F 4F **Transaction Log Format** 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14 9F 6E Third Party Data [Mastercard] 08 40 00 00 30 30 00 04 10 0B 14 00 01 00 00 50 17 79 00 9F 7E Application Life Cycle Data [Mastercard] AO 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 C3 Card Issuer Action Code (Contact) -00 00 00 Decline [M/Chip Advance] 06 50 00 C4 Card Issuer Action Code (Contact) -Default [M/Chip Advance] 06 FB 00 C5 Card Issuer Action Code (Contact) -Online [M/Chip Advance] C6 PIN Try Limit [M/Chip Advance] 03 C7 CDOL1 Related Data Length 42 [Mastercard] CRM Country Code [Mastercard] 08 40 - USA C8 Accumulator 1 Currency Code C9 08 40 - USD [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CB 00 58 00 CD Card Issuer Action Code (Contactless) -

Default [M/Chip Advance]

Card v5.x Tag Element name Data 06 F8 00 CE Card Issuer Action Code (Contactless) -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 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] 00 D3 Additional Check Table [Mastercard] 00 00 00 FF 80 00 80 00 C6 02 D5 Application Control [M/Chip Advance] 00 10 D6 Default ARPC Response Code [M/Chip Advance1 00 00 80 00 E6 02 D7 Application Control [M/Chip Advance] 08 02 03 00 D9 Application File Locator (Contactless) 00 00 00 00 00 00 00 00 00 Log Data Table [M/Chip Advance] DE DF 02 Security Limits Status (Contact) [M/Chip 00 Advance] Accumulator 1 Control (Contact) C1 DF 11 [M/Chip Advance] C1 Accumulator 1 Control (Contactless) **DF 12** [M/Chip Advance] 00 Accumulator 2 Control (Contact) DF 14 [M/Chip Advance] DF 15 Accumulator 2 Control (Contactless) 00 [M/Chip Advance] DF 16 Accumulator 2 Currency Code 08 40 [Mastercard] 08 40 00 00 00 08 40 00 00 00 08 40 DF 17 Accumulator 2 Currency Conversion 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] 00 DF 18 Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 00 DF 19 Accumulator 2 Upper Limit [Mastercard] Counter 1 Control (Contact) [M/Chip C1 DF 1A Advance1 Counter 1 Control (Contactless) [M/Chip C1 DF 1B Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 Advance] 00 DF 1E Counter 2 Control (Contactless) [M/Chip Advance1 00 DF 1F Counter 2 Lower Limit [Mastercard] 00 Counter 2 Upper Limit [Mastercard] DF 21 00 00 00 00 00 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 DF 23 MTA CVM (Contactless) [M/Chip **DF 24** MTA Currency Code [M/Chip Advance] 08 40 00 00 00 00 00 00 DF 25 MTA NoCVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 MTA NoCVM (Contactless) [M/Chip **DF 26** Advance] 00 00 **DF 27** Number Of Days Offline Limit [M/Chip Advance] 00 00 00 **DF 28** Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 Accumulator 1 CVR Dependency Data **DF 29** (Contactless) [M/Chip Advance] 00 00 00 Accumulator 2 CVR Dependency Data DF 2A (Contact) [M/Chip Advance]

Data Card v5.x Tag Element name 00 00 00 DF 2B Accumulator 2 CVR Dependency Data (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] 00 DF 35 Security Limits Status (Contactless) [M/Chip Advance] 00 Security Limits Status Common [M/Chip **DF 37** Advance] 00 DF 3C **CVR Issuer Discretionary Data** (Contact) [M/Chip Advance] 00 **CVR Issuer Discretionary Data** DF 3D (Contactless) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip 00 Advance] Read Record Filter (Contactless) 10 01 01 00 **DF 40** [M/Chip Advance] DF 41 DS Management Control [M/Chip 20 Advance]

4.5.3 Contact: CVM List - U.S. Maestro, AID A0000000042203

Cardholder Verification Method List ('4205 4203 1F03 0000')			
CVM	Verification Method	ion Method Conditions If unsuccessful	
1	Online PIN	Purchase with Cashback	Next CVM
2	Online PIN	Terminal supports CVM type	Next CVM
3	No CVM required	Terminal supports CVM type	Fail
4	Fail CVM Processing	Always	Fail

4.5.4 Contact: Application Tag data, AID A0000000042203

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 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 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
5F 34	Application PAN Sequence Number	11

^{*} Tag value changes with card usage

9F 4F

9F 6E

Transaction Log Format

Third Party Data [Mastercard]

Card v5.x Tag Element name Data 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 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 02 87 **Application Priority Indicator** 8C 9F 02 06 9F 03 06 9F 1A 02 95 05 5F Card Risk Management Data Object List 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 1 (CDOL1) 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 8D 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 Card Risk Management Data Object List 2 (CDOL2) 00 00 00 00 00 00 00 00 42 05 42 03 8E Cardholder Verification Method (CVM) 1F 03 00 00 00 00 List 10 01 02 00 10 04 04 00 Application File Locator (AFL) 94 9F 07 FF C0 **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 00 02 9F 08 **Application Version Number** B0 50 9C 88 00 9F 0D Issuer Action Code - Default 9F 0E Issuer Action Code - Denial 00 00 00 00 00 B0 70 9C 98 00 9F 0F Issuer Action Code - Online 9F 10 xx 10 xx Issuer Application Data [M/Chip xx xx xx xx xx ** Advancel 01 9F 11 Issuer Code Table Index 9F 12 55 53 20 4D 61 65 73 74 72 6F 20 20 Application Preferred Name 20 20 20 - 'US Maestro' 9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 17 Personal Identification Number (PIN) 03 Try Counter 00 9F 23 Counter 1 Upper Limit [Mastercard] 9F 26 Application Cryptogram (AC) xx xx xx xx xx xx xx xx ** 80 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) xx xx * 9F 42 08 40 - USD **Application Currency Code** 9F 4D 0B 0A Transaction Log Entry

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

Tag Element name Data Card v5.x 04 10 0B 14 00 01 00 00 50 17 79 00 9F 7E Application Life Cycle Data [Mastercard] AO 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 00 96 00 97 02 00 5A 5A 00 00 00 00 00 00 00 00 00 00 00 00 C3 Card Issuer Action Code (Contact) -00 00 00 Decline [M/Chip Advance] 06 50 00 C4 Card Issuer Action Code (Contact) -Default [M/Chip Advance] 06 FB 00 C5 Card Issuer Action Code (Contact) -Online [M/Chip Advance] ივ PIN Try Limit [M/Chip Advance] C6 42 C7 CDOL1 Related Data Length [Mastercard] C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code 08 40 - USD [Mastercard] CA 00 00 00 00 00 00 Accumulator 1 Lower Limit [Mastercard] Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CB 06 58 00 CD Card Issuer Action Code (Contactless) -Default [M/Chip Advance] 06 F8 00 CE Card Issuer Action Code (Contactless) -Online [M/Chip Advance] CF 08 00 00 Card Issuer Action Code (Contactless) -Decline [M/Chip Advance] 08 40 00 00 00 08 40 00 00 00 08 40 D1 Accumulator 1 Currency Conversion 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] 00 D3 Additional Check Table [Mastercard] 00 00 00 FF D5 80 00 80 00 C6 02 Application Control [M/Chip Advance] 00 10 D6 Default ARPC Response Code [M/Chip Advance1 00 00 80 00 E6 02 D7 Application Control [M/Chip Advance] D9 Application File Locator (Contactless) 08 02 02 00 08 04 04 00 DE Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 00 DF 02 Security Limits Status (Contact) [M/Chip 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) [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] 08 40 DF 16 Accumulator 2 Currency Code [Mastercard] Accumulator 2 Currency Conversion 08 40 00 00 00 08 40 00 00 00 08 40 DF 17 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] იი 00 00 00 00 00 00 **DF 18** Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 DF 19 Accumulator 2 Upper Limit [Mastercard] C1 DF 1A Counter 1 Control (Contact) [M/Chip Advance1 C1 DF 1B Counter 1 Control (Contactless) [M/Chip Advance1 00 DF 1D Counter 2 Control (Contact) [M/Chip Advance]

DF 1E	T	Florestown	Date: Oarl 5
DF 1F Counter 2 Lower Limit [Mastercard]	Tag	Element name	Data Card v5.x
DF 1F	DF 1E		00
DF 21 Counter 2 Upper Limit [Mastercard]		•	
DF 22 MTA CVM (Contact) [M/Chip Advance]			
DF 23			00
DF 24 MTA Currency Code [M/Chip Advance] DF 25 MTA NoCVM (Contact) [M/Chip Advance] DF 26 MTA NoCVM (Contactless) [M/Chip Advance] DF 26 MTA NoCVM (Contactless) [M/Chip Advance] DF 27 Number Of Days Offline Limit [M/Chip Advance] DF 28 Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 29 Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2A Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2C Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2C Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 3D Interface Enabling Switch [M/Chip Advance] DF 3D Interface Enabling Switch [M/Chip Advance] D7 3D In	DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 24 MTA Currency Code [M/Chip Advance] 08	DF 23	MTA CVM (Contactless) [M/Chip	00 00 00 00 00 00
DF 25		Advance]	
DF 25	DF 24	MTA Currency Code [M/Chip Advance]	08 40
Advance] DF 26 MTA NoCVM (Contactless) [M/Chip Advance] DF 27 Number Of Days Offline Limit [M/Chip Advance] DF 28 Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 29 Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2A Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2D Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance]	DF 25		00 00 00 00 00 00
DF 26 MTA NoCVM (Contactless) [M/Chip Advance] 00 00 00 00 00 00 00 00 DF 27 Number Of Days Offline Limit [M/Chip Advance] 00 00 00 DF 28 Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 DF 29 Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 DF 2A Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 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]		Advance]	
Advance] DF 27 Number Of Days Offline Limit [M/Chip Advance] DF 28 Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 29 Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2A Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance]	DF 26		00 00 00 00 00 00
DF 27 Number Of Days Offline Limit [M/Chip Advance] DF 28 Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 29 Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2A Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2C Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance]			
Advance] DF 28	DF 27		00 00
DF 28			
Contact) [M/Chip Advance]	DF 28		00 00 00
DF 29 Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2A Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance]	D. 20		
Contactless) [M/Chip Advance] DF 2A Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] O0 00 00 O0 00	DF 29		00 00 00
DF 2A Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2D Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance]	D. 20		
(Contact) [M/Chip Advance] DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2D Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance]	DF 2A		00 00 00
DF 2B	DI ZA	·	
(Contactless) [M/Chip Advance] DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance]	DE 2B		00 00 00
DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance]	DI 2D		
(Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance]	DE 2C		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] DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance] O0 00 00 O0 00 O0 00 00	DI 20		
(Contactless) [M/Chip Advance] DF 2E	DE 3D		00 00 00
DF 2E	טו בט		
(Contact) [M/Chip Advance] DF 2F	DE 2E		00 00 00
DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance] O0 00 00 03 03	DF ZE		
(Contactless) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance] Advance]	חב פר		00 00 00
DF 30 Interface Enabling Switch [M/Chip Advance] 03	DF ZF		00 00 00
Advance]	DE 20		03
	DF 30		03
	DE 05		00
	DF 35	Security Limits Status (Contactless)	00
[M/Chip Advance]	DE 07		00
DF 37 Security Limits Status Common [M/Chip 00	DF 37		00
Advance]	DEAG		
DF 3C CVR Issuer Discretionary Data 00	DF 3C		00
(Contact) [M/Chip Advance]			
DF 3D CVR Issuer Discretionary Data 00	DF 3D		00
(Contactless) [M/Chip Advance]			
DF 3F Read Record Filter (Contact) [M/Chip 00	DF 3F	` ,	00
Advance]			
DF 40 Read Record Filter (Contactless) 10 01 01 00	DF 40		10 01 01 00
[M/Chip Advance]			
DF 41 DS Management Control [M/Chip 20	DF 41		20
Advance]		Advance]	

^{*} Tag value changes with card usage

4.5.5 Contactless: CVM List - Mastercard debit, AID A0000000041010

Cardholder Verification Method List ('0205 5E03 0203 1F03 0000')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Next CVM
2	Signature (paper)	Terminal supports CVM type	Next CVM
3	Online PIN	Terminal supports CVM type	Fail
4	No CVM required	Terminal supports CVM type	Fail
5	Fail CVM Processing	Always	Fail

4.5.6 Contactless: Application Tag data, AID A0000000041010

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 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 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
	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
0D	Coud Diels 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 2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 05 5E 03
	List	02 03 1F 03 00 00
94	Application File Locator (AFL)	08 02 03 00

Tag Element name Data Card v5.x

9F 07 Application Usage Control FF C0

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	
05.00	A sellenting Manales NI select	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 xx xx xx xx xx xx xx xx	xx xx xx
0= 44	Advance]		
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	4D 61 73 74 65 72 63 61 72 65 62 69 74 - 'Mastercard Debit'	
05 14	Countar 1 Lawer Limit [Mastercard]	00	
9F 14 9F 17	Counter 1 Lower Limit [Mastercard]	03	
9F 17	Personal Identification Number (PIN)	03	
0E 22	Try Counter	00	
9F 23	Counter 1 Upper Limit [Mastercard]	** ** ** ** ** ** ** ** *	
9F 26	Application Cryptogram (AC)	80	
9F 27	Cryptogram Information Data (CID) Application Transaction Counter (ATC)	xx xx *	
9F 36		08 40 - USD	
9F 42	Application Currency Code	82	
9F 4A 9F 4D	Static Data Authentication Tag List Transaction Log Entry	OB OA	
9F 4F	Transaction Log Entry Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02	02 U3 OE
91 41	Transaction Log Format	36 02 9F 52 06 DF 3E 01 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 96 00 97 02	
	Condition of the Control	00 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]	06 50 00	
C4	Card Issuer Action Code (Contact) -	00 30 00	
C5	Default [M/Chip Advance]	06 FB 00	
Co	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	00 15 00	
CG		03	
C6	PIN Try Limit [M/Chip Advance]	42	
C7	CDOL1 Related Data Length [Mastercard]	36	
C8	CRM Country Code [Mastercard]	08 40 - USA	
C9	Accumulator 1 Currency Code	08 40 - USD	
O 9	[Mastercard]	00 40 000	
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 58 00	
	Default [M/Chip Advance]		
CE	Card Issuer Action Code (Contactless) -	06 F8 00	
OL.	Online [M/Chip Advance]		
	Online [w/Onlp Advance]		

Data Tag Element name Card v5.x 08 00 00 CF Card Issuer Action Code (Contactless) -Decline [M/Chip Advance] D1 Accumulator 1 Currency Conversion 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] 00 D3 Additional Check Table [Mastercard] 00 00 00 FF D5 80 00 80 00 C6 02 Application Control [M/Chip Advance] 00 10 D6 Default ARPC Response Code [M/Chip Advance] D7 Application Control [M/Chip Advance] 00 00 80 00 E6 02 00 DF 02 Security Limits Status (Contact) [M/Chip Advance]

4.5.7 Contactless: CVM List - U.S. Maestro, AID A0000000042203

Cardholder Verification Method List ('0205 4203 1F03 0000')				
CVM	Verification Method	Conditions	If unsuccessful	
1	Online PIN	Purchase with Cashback	Fail	
2	Online PIN	Terminal supports CVM type	Next CVM	
3	No CVM required	Terminal supports CVM type	Fail	
4	Fail CVM Processing	Always	Fail	

4.5.8 Contactless: Application Tag data, AID A0000000042203

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 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 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	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 22 03
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14

^{*} Tag value changes with card usage

Tag Element name Data Card v5.x 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 8D Card Risk Management Data Object List 2 (CDOL2) 8E Cardholder Verification Method (CVM) 00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 94 Application File Locator (AFL) 08 02 02 00 08 04 04 00 FF C0 9F 07 Application Usage Control 00 02 9F 08 **Application Version Number** 9F 0D Issuer Action Code - Default B4 50 84 00 00 Issuer Action Code - Denial 00 00 00 00 00 9F 0E 9F 0F Issuer Action Code - Online B4 70 84 80 00 9F 10 Issuer Application Data [M/Chip xx 10 xx ** Advance1 01 9F 11 Issuer Code Table Index 55 53 20 4D 61 65 73 74 72 6F 20 20 9F 12 **Application Preferred Name** 20 20 20 - 'US Maestro' 00 9F 14 Counter 1 Lower Limit [Mastercard] 9F 17 03 Personal Identification Number (PIN) Try Counter 00 9F 23 Counter 1 Upper Limit [Mastercard] 9F 26 Application Cryptogram (AC) **xx xx xx xx xx xx xx *** 80 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) xx xx * 08 40 - USD 9F 42 **Application Currency Code** 9F 4A Static Data Authentication Tag List 82 OB OA 9F 4D Transaction Log Entry 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 9F 4F Transaction Log Format 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14 08 40 00 00 30 30 00 9F 6E Third Party Data [Mastercard] 9F 7E 04 10 0B 14 00 01 00 00 50 17 79 00 Application Life Cycle Data [Mastercard] A0 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 00 96 00 97 02 00 5A 5A 00 00 00 00 00 00 00 00 00 00 00 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] 06 FB 00 C5 Card Issuer Action Code (Contact) -Online [M/Chip Advance] C6 PIN Try Limit [M/Chip Advance] 03 42 C7 CDOL1 Related Data Length [Mastercard] C8 08 40 - USA CRM Country Code [Mastercard] Accumulator 1 Currency Code C9 08 40 - USD [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] 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 08 00 00 Card Issuer Action Code (Contactless) -Decline [M/Chip Advance] 08 40 00 00 00 08 40 00 00 00 08 40 D1 Accumulator 1 Currency Conversion 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] 00 D3 00 00 00 FF FF FF FF FF FF FF FF Additional Check Table [Mastercard] FF FF FF FF FF

Tag	Element name	Data	Card v5.x
D5	Application Control [M/Chip Advance]	80 00 80 00 C6 02	
D6	Default ARPC Response Code [M/Chip	00 10	
	Advance]		
D7	Application Control [M/Chip Advance]	00 00 80 00 E6 02	
DF 02	Security Limits Status (Contact) [M/Chip	00	
	Advance]		

^{*} Tag value changes with card usage

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

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

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

4.6.1 Contact: CVM List - Maestro Debit, AID A000000043060D0561111

Cardholder Verification Method List ('4103 0203 0000')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM
2	Online PIN	Terminal supports CVM type	Fail
3	Fail CVM Processing	Always	Fail

4.6.2 Contact: Application Tag data, AID A0000000043060D0561111

Tag	Element name	Data Card v5.x
50	Application Label	4D 41 45 53 54 52 4F 31 20 20 20 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 0F
5A	Application Primary Account Number (PAN)	67 99 99 89 00 00 02 01 0F
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	08 40 - USA
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: b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 30 60 D0 56 11 11

Tag Element name Data Card v5.x Application Priority Indicator 87 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 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 8D Card Risk Management Data Object List 2 (CDOL2) 00 00 00 00 00 00 00 00 41 03 02 03 8E Cardholder Verification Method (CVM) 00 00 00 00 08 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 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** Issuer Action Code - Default B0 50 BC 88 00 9F 0D 9F 0E Issuer Action Code - Denial 00 00 00 00 00 B0 70 BC 98 00 9F 0F Issuer Action Code - Online 9F 10 xx 14 xx Issuer Application Data [M/Chip xx xx xx xx xx ** Advance1 9F 11 Issuer Code Table Index 01 4D 61 65 73 74 72 6F 31 20 20 20 20 9F 12 **Application Preferred Name** 20 20 20 - 'Maestro1' 9F 14 Counter 1 Lower Limit [Mastercard] 00 Personal Identification Number (PIN) 09 9F 17 Try Counter Counter 1 Upper Limit [Mastercard] 00 9F 23 **xx xx xx xx xx xx xx xx *** 9F 26 Application Cryptogram (AC) 80 9F 27 Cryptogram Information Data (CID) 9F 36 xx xx * Application Transaction Counter (ATC) 9F 42 **Application Currency Code** 09 78 - EUR 9F 4D Transaction Log Entry 0B 0A Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 9F 4F 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 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 C3 Card Issuer Action Code (Contact) -00 00 00 Decline [M/Chip Advance] 7F 50 00 C4 Card Issuer Action Code (Contact) -Default [M/Chip Advance] 3F FB 00 C5 Card Issuer Action Code (Contact) -Online [M/Chip Advance] 09 PIN Try Limit [M/Chip Advance] C6 42 C7 CDOL1 Related Data Length [Mastercard] C8 CRM Country Code [Mastercard] 05 28 - NLD

Card v5.x Tag Element name Data 09 78 - EUR C9 Accumulator 1 Currency Code [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CB CD Card Issuer Action Code (Contactless) -00 00 00 Default [M/Chip Advance] 00 00 00 CE Card Issuer Action Code (Contactless) -Online [M/Chip Advance] Card Issuer Action Code (Contactless) -CF 00 00 00 Decline [M/Chip Advance] D1 Accumulator 1 Currency Conversion 09 78 00 00 00 09 78 00 00 00 09 78 00 00 00 09 78 00 00 00 09 78 00 00 Table [Mastercard] 00 00 00 00 FF FF FF FF FF FF FF FF D3 Additional Check Table [Mastercard] FF FF FF FF FF 86 00 80 00 C6 02 D5 Application Control [M/Chip Advance] D6 Default ARPC Response Code [M/Chip 00 10 Advance1 D7 Application Control [M/Chip Advance] 00 00 00 00 00 00 D9 Application File Locator (Contactless) 00 00 00 00 00 00 00 00 DE Log Data Table [M/Chip Advance] 00 DF 02 Security Limits Status (Contact) [M/Chip Advance1 DF 11 Accumulator 1 Control (Contact) C1 [M/Chip Advance] 00 Accumulator 1 Control (Contactless) DF 12 [M/Chip Advance] 00 **DF 14** Accumulator 2 Control (Contact) [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] Accumulator 2 Currency Code 09 99 **DF 16** [Mastercard] Accumulator 2 Currency Conversion 09 99 00 00 00 09 99 00 00 00 09 99 **DF 17** 00 00 00 09 99 00 00 00 09 99 00 00 Table [Mastercard] 00 00 00 00 00 00 00 DF 18 Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 DF 19 Accumulator 2 Upper Limit [Mastercard] C1 DF 1A Counter 1 Control (Contact) [M/Chip Advance] 00 DF 1B Counter 1 Control (Contactless) [M/Chip Advance1 Counter 2 Control (Contact) [M/Chip 00 DF 1D Advance] 00 DF 1E Counter 2 Control (Contactless) [M/Chip Advance] DF 1F Counter 2 Lower Limit [Mastercard] 00 00 DF 21 Counter 2 Upper Limit [Mastercard] 00 00 00 00 00 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 DF 23 MTA CVM (Contactless) [M/Chip Advance1 DF 24 MTA Currency Code [M/Chip Advance] 00 00 00 00 00 00 DF 25 MTA NoCVM (Contact) [M/Chip Advance] MTA NoCVM (Contactless) [M/Chip 00 00 00 00 00 00 **DF 26** Advance] 00 00 **DF 27** Number Of Days Offline Limit [M/Chip Advance]

Data Card v5.x Tag Element name 00 00 00 DF 28 Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] **DF 29** Accumulator 1 CVR Dependency Data 00 00 00 (Contactless) [M/Chip Advance] 00 00 00 DF 2A Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 Counter 2 CVR Dependency Data DF 2F (Contactless) [M/Chip Advance] 01 **DF 30** Interface Enabling Switch [M/Chip Advance] 00 Security Limits Status (Contactless) DF 35 [M/Chip Advance] **DF 37** Security Limits Status Common [M/Chip 00 Advancel **CVR Issuer Discretionary Data** 00 DF 3C (Contact) [M/Chip Advance] **CVR Issuer Discretionary Data** 00 DF 3D (Contactless) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip 00 Advance] Read Record Filter (Contactless) 00 **DF 40** [M/Chip Advance] DS Management Control [M/Chip 20 DF 41 Advance]

4.6.3 Contact: CVM List - Maestro Debit, AID A000000043060D0562222

Cardholder Verification Method List ('4103 0203 0000')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM
2	Online PIN	Terminal supports CVM type	Fail
3	Fail CVM Processing	Always	Fail

4.6.4 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	08 40 - USA	

^{*} Tag value changes with card usage

SF 2D	Tag	Element name	Data Card v5.x
SF 34			
SF 34	5F 30		02 20
Application Interchange Profile	5F 34		32
BYTE 1:	82		18 00
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 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 - DDA / GEN AC NOT supported b3 - DDA / GEN AC NOT supported b4 - DDA / GEN B4 - DDA			
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 BYTE 2: B9 - B9			
External Auth command			
Supported B1			
Section Sect			
BYTE 2: B3 - EMV mode NOT supported B4			
B4			
Dedicated File (DF) Name			- · ··
Application Priority Indicator SC Card Risk Management Data Object List 1 (CDOL1) SF 20	84	Dedicated File (DF) Name	
SC			
1 (CDOL1)		11	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14			
Section Card Risk Management Data Object List 2 (CDOL2)		,	
2 (CDOL2)	0D	Cord Dick Management Date Ohis at List	
Second	עא		71 OA OA OZ 93 O3 9E 37 O4 9E 4C U0
List	8F		00 00 00 00 00 00 00 00 41 03 02 03
94 Application File Locator (AFL) 08 01 01 00 94 Application File Locator (AFL) 08 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 b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: 9F 08 Application Version Number 00 02 9F 0A Application Selection Registered Proprietary Data 00 01 01 01 9F 0D Issuer Action Code - Default B0 50 BC 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 14 xx	02	,	
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 b5 - International services valid b3 - International services valid b3 - International services valid b3 - International services valid b4 - Domestic cashback allowed b7 - International cashb	94		08 01 01 00
9F 07 Application Usage Control PF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Intl cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International services valid b3 - International services valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Interna			08 01 01 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 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 base with p8 - Domestic cashback allowed b7 - International base with p8 - Domestic cashback allowed b7 - International base with p8 - Domestic cashback allowed b7 - International base with p8 - Domestic cashback allowed b7 - International base with p8 - Domestic cashback allowed b7 - International base with p8 - Domestic cashback allowed b7 - International base with p8 - Domestic cashback allowed b7 - International base with p8 - Domestic cashback allowed b7 - International base with p8 - Domestic cashback allowed b7 - International base with p8 - Domestic cashback allowed b7 - International base with p8 - Domestic cashback a			FF C0
b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b4 - Domestic services 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 cashb		11	
b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid 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 - Interna			
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 allo			
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			
b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b8 - Domestic cashback allowed b7 - International cashback allowed b8 - Domestic cashback allowed b9 - Domestic cashback allowed b8 - Domestic cashback allowed b8 - Domestic cashback allowed b9 - Domestic cashback allowed b8 - Domestic cashback allowed b9 - Domestic cashback			
b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allo			
BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b9 00 00 00 00 00 00 00 00 00 00 00 00 00			
b8 - Domestic cashback allowed b7 - International cashback allowed 9F 08 Application Version Number 9F 0A Application Selection Registered Proprietary Data 9F 0D Issuer Action Code - Default 9F 0E Issuer Action Code - Denial 9F 0F Issuer Action Code - Online 9F 10 Issuer Application Data [M/Chip Advance] 9F 11 Issuer Code Table Index 9F 12 Application Preferred Name 9F 14 Counter 1 Lower Limit [Mastercard] 9F 17 Personal Identification Number (PIN) Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 9F 26 Application Cryptogram (AC) 9F 36 Application Transaction Counter (ATC) b8 00 00 01 01 01 B0 50 BC 88 00 c0 00 00 00 00 c0 00 00 c0 0			
B7 - International cashback allowed			
Section Section Registered Proprietary Data			
Proprietary Data Proprietary			
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 Advance] xx 14 xx	9F 0A		00 01 01 01
9F 0E			
9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 14 xx			
9F 10 Issuer Application Data [M/Chip Advance]			
Advance] xx			
9F 11	9F 10		
9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 32 20 20 20 20 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	OE 11		
9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 17 Personal Identification Number (PIN) Try Counter 00 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC)			
9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 17 Personal Identification Number (PIN) 03 Try Counter 00 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx	31 12	Application r referred Name	
9F 17 Personal Identification Number (PIN) Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) *** *** ****************************	9F 14	Counter 1 Lower Limit [Mastercard]	
Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) *** *** *** *** *******************			03
9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC)		, ,	
9F 26 Application Cryptogram (AC)	9F 23		00
9F 36 Application Transaction Counter (ATC) xx xx *			xx xx xx xx xx xx xx *
or de Application Transaction Counter (7170)	9F 27		
9F 42 Application Currency Code 09 78 - EUR			
1 11 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9F 42	Application Currency Code	09 78 - EUR

Tag Data Element name Card v5.x 0B 0A 9F 4D Transaction Log Entry 9F 4F 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F **Transaction Log Format** 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 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 C3 Card Issuer Action Code (Contact) -00 00 00 Decline [M/Chip Advance] C4 7F 50 00 Card Issuer Action Code (Contact) -Default [M/Chip Advance] C5 3F FB 00 Card Issuer Action Code (Contact) -Online [M/Chip Advance] PIN Try Limit [M/Chip Advance] 03 C6 C7 42 CDOL1 Related Data Length [Mastercard] C8 CRM Country Code [Mastercard] 05 28 - NLD C9 Accumulator 1 Currency Code 09 78 - EUR [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CD Card Issuer Action Code (Contactless) -00 00 00 Default [M/Chip Advance] CE Card Issuer Action Code (Contactless) -00 00 00 Online [M/Chip Advance] 00 00 00 CF Card Issuer Action Code (Contactless) -Decline [M/Chip Advance] D1 Accumulator 1 Currency Conversion 09 78 00 00 00 09 78 00 00 00 09 78 00 00 00 09 78 00 00 00 09 78 00 00 Table [Mastercard] 0.0 D3 00 00 00 FF FF FF FF FF FF FF FF Additional Check Table [Mastercard] FF FF FF FF FF D5 Application Control [M/Chip Advance] 86 00 80 00 C6 02 D6 Default ARPC Response Code [M/Chip 00 10 Advance] D7 Application Control [M/Chip Advance] 00 00 00 00 00 00 Application File Locator (Contactless) D9 00 00 00 00 00 00 00 00 00 DE Log Data Table [M/Chip Advance] 00 DF 02 Security Limits Status (Contact) [M/Chip Advance] Accumulator 1 Control (Contact) C1 **DF 11** [M/Chip Advance] 00 DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] 00 **DF 14** Accumulator 2 Control (Contact) [M/Chip Advance] DF 15 Accumulator 2 Control (Contactless) 00 [M/Chip Advance] 09 99 **DF 16** Accumulator 2 Currency Code [Mastercard] Accumulator 2 Currency Conversion 09 99 00 00 00 09 99 00 00 00 09 99 **DF 17** 00 00 00 09 99 00 00 00 09 99 00 00 Table [Mastercard] 00 00 00 00 00 00 00 DF 18 Accumulator 2 Lower Limit [Mastercard] Accumulator 2 Upper Limit [Mastercard] DF 19 00 00 00 00 00 00 Counter 1 Control (Contact) [M/Chip C1 DF 1A Advance]

Ton	Flows and in one o	Data Cand of v
Tag	Element name	Data Card v5.x
DF 1B	Counter 1 Control (Contactless) [M/Chip	00
DE 4D	Advance]	00
DF 1D	Counter 2 Control (Contact) [M/Chip	
DE 45	Advance]	00
DF 1E	Counter 2 Control (Contactless) [M/Chip	00
DE 45	Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	
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
DE 0.4	Advance]	00.70
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
D= 0=	Advance]	20.00
DF 27	Number Of Days Offline Limit [M/Chip	00 00
DE 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 00
	(Contactless) [M/Chip Advance]	00.00.00
DF 2A	Accumulator 2 CVR Dependency Data	00 00 00
DE 00	(Contact) [M/Chip Advance]	00.00.00
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	00.00.00
DF 2C	Counter 1 CVR Dependency Data	00 00 00
DE OD	(Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data	00 00 00
DE OF	(Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data	00 00 00
DE OF	(Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data	00 00 00
DE 00	(Contactless) [M/Chip Advance]	01
DF 30	Interface Enabling Switch [M/Chip	01
DE 05	Advance]	00
DF 35	Security Limits Status (Contactless)	
DE 27	[M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip	
DE 30	Advance] CVR Issuer Discretionary Data	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	""
DF 3D	CVR Issuer Discretionary Data	00
טר אט	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
טר אר	Read Record Filter (Contact) [M/Cnip Advance]	~~
DF 40	Read Record Filter (Contactless)	00
DF 40	[M/Chip Advance]	"
DF 41	DS Management Control [M/Chip	20
DI 41	Advance]	

^{*} Tag value changes with card usage

4.7 Test Card 07 - Mastercard Int'l, 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 - 'MASTERCARD'
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 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 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
	0 18:14	9F 7C 14
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08

Tag	Element name	Data Card v5.x
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 41 03 42 03
	List	5E 03 5F 03 00 00
94	Application File Locator (AFL)	08 01 01 00
94	Application File Locator (AFL)	08 01 01 00
9F 07	Application Usage Control	FF 00
		BYTE 1:
		b8 - Domestic cash 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 0A	Application Selection Registered	00 01 01 02
	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 10 xx
	Advance]	xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 73 74 65 72 63 61 72 64 20 20
		20 20 20 20 - 'Mastercard'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	09
9F 23	Try Counter	00
	Counter 1 Upper Limit [Mastercard]	** ** ** ** ** ** ** *
9F 26 9F 27	Application Cryptogram (AC) Cryptogram Information Data (CID)	80
9F 27	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 26 - GBP
9F 4D	Transaction Log Entry	OB OA
9F 4F	Transaction Log Entry Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
31 41	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 10 10 00 00 00 00 00 00 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
	Decline [M/Chip Advance]	
C4	Card Issuer Action Code (Contact) -	06 00 00
	Default [M/Chip Advance]	
C5	Card Issuer Action Code (Contact) -	06 00 00
	Online [M/Chip Advance]	
C6	PIN Try Limit [M/Chip Advance]	09
C7	CDOL1 Related Data Length	42
	[Mastercard]	
C8	CRM Country Code [Mastercard]	08 26 - GBR
C9	Accumulator 1 Currency Code	08 26 - GBP
	[Mastercard]	00.00.00.00.00
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
СВ	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00

Card v5.x Tag Element name Data 00 00 00 CD Card Issuer Action Code (Contactless) -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] 08 26 00 00 00 08 26 00 00 00 08 26 D1 Accumulator 1 Currency Conversion 00 00 00 08 26 00 00 00 08 26 00 00 Table [Mastercard] 00 00 00 00 FF FF FF FF FF FF FF FF D3 Additional Check Table [Mastercard] FF FF FF FF FF Application Control [M/Chip Advance] 84 00 80 00 C6 02 D5 00 10 D6 Default ARPC Response Code [M/Chip 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 Advance1 C1 Accumulator 1 Control (Contact) **DF 11** [M/Chip Advance] 00 Accumulator 1 Control (Contactless) 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] 09 99 Accumulator 2 Currency Code DF 16 [Mastercard] Accumulator 2 Currency Conversion 09 99 00 00 00 09 99 00 00 00 09 99 DF 17 00 00 00 09 99 00 00 00 09 99 00 00 Table [Mastercard] 00 DF 18 Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 00 DF 19 Accumulator 2 Upper Limit [Mastercard] C1 DF 1A Counter 1 Control (Contact) [M/Chip Advance] DF 1B Counter 1 Control (Contactless) [M/Chip 00 Advance] 00 DF 1D Counter 2 Control (Contact) [M/Chip Advance1 00 Counter 2 Control (Contactless) [M/Chip DF 1E Advance1 00 Counter 2 Lower Limit [Mastercard] DF 1F DF 21 Counter 2 Upper Limit [Mastercard] 00 00 00 00 00 00 00 DF 22 MTA CVM (Contact) [M/Chip Advance] DF 23 MTA CVM (Contactless) [M/Chip 00 00 00 00 00 00 **Advancel** 08 26 **DF 24** MTA Currency Code [M/Chip Advance] MTA NoCVM (Contact) [M/Chip 00 00 00 00 00 00 DF 25 Advance] 00 00 00 00 00 00 DF 26 MTA NoCVM (Contactless) [M/Chip Advance] 00 00 **DF 27** Number Of Days Offline Limit [M/Chip Advance] 00 00 00 Accumulator 1 CVR Dependency Data **DF 28** (Contact) [M/Chip Advance] 00 00 00 **DF 29** Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]

Element name Data Card v5.x Tag 00 00 00 DF 2A Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2B Accumulator 2 CVR Dependency Data 00 00 00 (Contactless) [M/Chip Advance] 00 00 00 DF₂C 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] 01 DF 30 Interface Enabling Switch [M/Chip Advance] 00 Security Limits Status (Contactless) **DF 35** [M/Chip Advance] Security Limits Status Common [M/Chip 00 **DF 37** Advance] 00 **CVR Issuer Discretionary Data** DF 3C (Contact) [M/Chip Advance] DF 3D **CVR Issuer Discretionary Data** 00 (Contactless) [M/Chip Advance] Read Record Filter (Contact) [M/Chip 00 DF 3F Advance] Read Record Filter (Contactless) 00 **DF 40** [M/Chip Advance] DS Management Control [M/Chip 20 DF 41 Advance]

4.7.3 Contact: CVM List - Maestro debit, AID A0000000043060

Cardholder Verification Method List ('4103 4203 0000')				
CVM	Verification Method	Conditions	If unsuccessful	
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM	
2	Online PIN	Terminal supports CVM type	Next CVM	
3	Fail CVM Processing	Always	Fail	

4.7.4 Contact: Application Tag data, AID A0000000043060

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 - 'MAESTRO'
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	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 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	12

^{*} Tag value changes with card usage

Application Interchange Profile	Tag	Element name	Data Card v5.x
BYTE 1:			
B6 - Offline DDA NOT supported	0_	, ipplication micromanige i reme	BYTE 1:
B5 - Cardholder verification supported b3 - Issuer authentication NOT supported b3 - Issuer authentication NOT supported via External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported DDA / GEN AC NOT supporte			
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 DDA / GEN B1 - COMBINED			
B3 - Issuer authentication NOT supported via External Auth command 12 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2:			
External Auth command			
Supported BYTE 2: b8 - EMV mode NOT supported BYTE 2: b8 - EMV mode NOT supported BYTE 2: b8 - EMV mode NOT supported BYTE 2: b8 - EMV mode NOT supported BYTE 2: b8 - EMV mode NOT supported NOT			
84			b2 - On device Cardholder verification NOT
BYTE 2: B8 - EMV mode NOT supported			
B8			
Application Priority Indicator			- · ·
Application Priority Indicator SC Card Risk Management Data Object List 1 (CDOL1) SP 30 06 9F 13 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 75 14 SP 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 75 14 SP 45 02 9F 4C 08 9F 37 04 9F 35 01 9F 75 14 SP 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 75 14 SP 45 02 9F 4C 08 9F 37 04 9F 35 01 9F 37 04 9F 37 0	84	Dedicated File (DF) Name	A0 00 00 00 04 30 60
SC			
1 (CDOL1)			
Second S			
Section Card Risk Management Data Object List 2 (CDOL2)		. (65621)	
2 (CDOL2) 8E			
SE	8D		91 UA 8A U2 95 U5 9F 37 U4 9F 4C 08
Section Color Co	0E		00 00 00 00 00 00 00 00 41 03 42 03
94 Application File Locator (AFL)	OL		
PF 07	94		08 01 02 00
BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b3 - International 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			FF CO
b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International 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 b8 - Domestic cashback allowed b8 - International cashback allowed b8 - International cashback allowed b9 - International c		rippinganon coage comic.	= : : = ::
b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid 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 - Interna			
b5 - International goods valid b4 - Domestic services 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 allowe			
b4 - Domestic services valid b3 - International services valid b2 - ATMS valid b1 - non-ATM terminals valid b7 - International cashback allowed b7 - Internat			
B3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International			
b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowe			
BYTE 2:			
B8 - Domestic cashback allowed b7 - International cashback allowed 97 - International cashback allowed 98 - Domestic cashback allowed 98 - Domestic cashback allowed 97 - International cashback allowed 98 - Domestic cashback allowed 97 - International cashback allowed 98 - Domestic cashback allowed 99 - Dolo			
9F 08 Application Version Number 00 02			
9F 08 Application Version Number 00 02 9F 0A Application Selection Registered Proprietary Data 00 01 01 01 9F 0D Issuer Action Code - Default B0 50 BC 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 14 xx			
9F 0A Application Selection Registered Proprietary Data 00 01 01 01 01 9F 0D Issuer Action Code - Default B0 50 BC 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 14 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 Application Data [M/Chip Advance] xx 14 xx			00 01 01 01
9F 0E Issuer Action Code - Denial 00 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 14 xx			
9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 14 xx	9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 10 Issuer Application Data [M/Chip Advance] xx 14 xx	9F 0E	Issuer Action Code - Denial	00 00 00 00 00
Advance]	9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 11	9F 10	Issuer Application Data [M/Chip	xx 14 xx
9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 20 20 20 20 20 20 20 20 20 20 20 20 20			
20 20 20 - 'Maestro' 9F 14			
9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 17 Personal Identification Number (PIN) 09 Try Counter 00 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx	9F 12	Application Preferred Name	
9F 17 Personal Identification Number (PIN) Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) 9F 42 Application Currency Code 9F 4D Transaction Log Entry 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	05.44	Country 1 Lower Limit Masters 11	
Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx			
9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx	95 17		V 3
9F 26 Application Cryptogram (AC) xx	0F 23	•	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 36 02 9F 52 06 DF 3E 01 9F 21 03 9F			
9F 36 Application Transaction Counter (ATC) xx xx * 9F 42 Application Currency Code 08 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			
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			
9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F			
9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F			
36 02 9F 52 06 DF 3E 01 9F 21 03 9F			
7C 14			36 02 9F 52 06 DF 3E 01 9F 21 03 9F
			7C 14

Tag Element name Data Card v5.x 04 10 0B 14 00 01 00 00 50 17 79 00 9F 7E Application Life Cycle Data [Mastercard] A0 00 00 00 04 30 60 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00 C3 Card Issuer Action Code (Contact) -00 00 00 Decline [M/Chip Advance] 7F 50 00 C4 Card Issuer Action Code (Contact) -Default [M/Chip Advance] C5 3F FB 00 Card Issuer Action Code (Contact) -Online [M/Chip Advance] 0.9 PIN Try Limit [M/Chip Advance] C6 42 C7 CDOL1 Related Data Length [Mastercard] C8 CRM Country Code [Mastercard] 08 26 - GBR C9 Accumulator 1 Currency Code 08 26 - GBP [Mastercard] CA 00 00 00 00 00 00 Accumulator 1 Lower Limit [Mastercard] Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CB 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] CF 00 00 00 Card Issuer Action Code (Contactless) -Decline [M/Chip Advance] 08 26 00 00 00 08 26 00 00 00 08 26 D1 Accumulator 1 Currency Conversion 00 00 00 08 26 00 00 00 08 26 00 00 Table [Mastercard] 00 D3 Additional Check Table [Mastercard] 00 00 00 FF D5 86 00 80 00 C6 02 Application Control [M/Chip Advance] 00 10 D6 Default ARPC Response Code [M/Chip Advance1 00 00 00 00 00 00 D7 Application Control [M/Chip Advance] 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] C1 DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] 00 **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] Accumulator 2 Currency Code 09 99 DF 16 [Mastercard] Accumulator 2 Currency Conversion 09 99 00 00 00 09 99 00 00 00 09 99 DF 17 00 00 00 09 99 00 00 00 09 99 00 00 Table [Mastercard] იი 00 00 00 00 00 00 **DF 18** Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 DF 19 Accumulator 2 Upper Limit [Mastercard] C1 DF 1A Counter 1 Control (Contact) [M/Chip Advance1 00 DF 1B Counter 1 Control (Contactless) [M/Chip Advance1 00 DF 1D Counter 2 Control (Contact) [M/Chip Advance]

T	Florestones	D. ()
Tag	Element name	Data Card v5.x
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 26
DF 25	MTA NoCVM (Contact) [M/Chip	00 00 00 00 00
	Advance]	
DF 26	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 27	Number Of Days Offline Limit [M/Chip	00 00
	Advance]	
DF 28	Accumulator 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 29	Accumulator 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2A	Accumulator 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2F	Counter 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 30	Interface Enabling Switch [M/Chip	01
	Advance]	
DF 35	Security Limits Status (Contactless)	00
	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	00
	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
	Advance]	
DF 40	Read Record Filter (Contactless)	00
	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
	Advance]	
		<u> </u>

^{*} Tag value changes with card usage

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 A0000000042203D0561111

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 A0000000042203D0561111

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	
	A self-reffer Disease Asses of Novel as	14 83 59 49 00 0F 54 13 33 00 89 09 90 07	
5A	Application Primary Account Number (PAN)		
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65	
		73 74 20 43 61 72 64 20 30 38 20 20	
<i>EE</i> 04	Application Expiration Data	20 20 - 'USA DEBIT/Test Card 08' 25 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)	
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	
	. (02021)	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	
94	List Application File Locator (AFL)	1F 03 00 00 08 01 01 00	

Tag	Element name	Data	Card v5.x
9F 07	Application Usage Control	FF CO	
	. Physican confictions	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	x 10 x x x x x x x x x x x x x x x x x x	xx xx xx
05.44	Advance]		
9F 11	Issuer Code Table Index	01	6E 67 00
9F 12	Application Preferred Name	55 53 20 43 68 65 63 6B 69 20 20 20 20 - 'US Checking'	6E 6/ 20
9F 14	Counter 1 Lower Limit [Mastercard]	00	
9F 17	Personal Identification Number (PIN)	03	
31 17	Try Counter		
9F 23	Counter 1 Upper Limit [Mastercard]	00	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx **	
9F 27	Cryptogram Information Data (CID)	80	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 42	Application Currency Code	08 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
0	Transastion Log Format	36 02 9F 52 06 DF 3E 01 9F	
		7C 14	
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50	
		A0 00 00 00 04 22 03 00 00 00 00 00 00 00 00 80 00 88 01	
		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) -	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	
СВ	Accumulator 1 Upper Limit [Mastercard]	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]	00.00.00	
CF	Card Issuer Action Code (Contactless) -	00 00 00	
	Decline [M/Chip Advance]		

Tag Element name Data Card v5.x Accumulator 1 Currency Conversion 08 40 00 00 00 08 40 00 00 00 08 40 D1 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] 00 Additional Check Table [Mastercard] 00 00 00 FF FF FF FF FF FF FF FF D3 FF FF FF FF FF D5 Application Control [M/Chip Advance] 80 00 80 00 C6 02 00 10 D6 Default ARPC Response Code [M/Chip Advance1 00 00 00 00 00 00 Application Control [M/Chip Advance] D7 D9 Application File Locator (Contactless) 00 00 00 00 00 00 00 00 Log Data Table [M/Chip Advance] DE Security Limits Status (Contact) [M/Chip 00 DF 02 Advance] C1 DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) 00 [M/Chip Advance] DF 14 Accumulator 2 Control (Contact) 00 [M/Chip Advance] 00 **DF 15** Accumulator 2 Control (Contactless) [M/Chip Advance] 09 99 Accumulator 2 Currency Code DF 16 [Mastercard] **DF 17** Accumulator 2 Currency Conversion 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 Table [Mastercard] 00 00 00 00 00 00 00 Accumulator 2 Lower Limit [Mastercard] DF 18 00 00 00 00 00 00 DF 19 Accumulator 2 Upper Limit [Mastercard] DF 1A Counter 1 Control (Contact) [M/Chip C1 Advance1 00 DF 1B Counter 1 Control (Contactless) [M/Chip Advance] Counter 2 Control (Contact) [M/Chip 00 DF 1D Advance1 Counter 2 Control (Contactless) [M/Chip 00 DF 1E Advance1 DF 1F Counter 2 Lower Limit [Mastercard] 00 00 DF 21 Counter 2 Upper Limit [Mastercard] 00 00 00 00 00 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 MTA CVM (Contactless) [M/Chip DF 23 Advance] MTA Currency Code [M/Chip Advance] 08 40 **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 Advance1 00 00 **DF 27** Number Of Days Offline Limit [M/Chip Advance] 00 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 Accumulator 2 CVR Dependency Data DF 2B (Contactless) [M/Chip Advance] 00 00 00 Counter 1 CVR Dependency Data DF 2C (Contact) [M/Chip Advance]

Data Element name Card v5.x Tag 00 00 00 DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data 00 00 00 (Contact) [M/Chip Advance] 00 00 00 DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] 01 **DF 30** Interface Enabling Switch [M/Chip Advance] 00 DF 35 Security Limits Status (Contactless) [M/Chip Advance] 00 DF 37 Security Limits Status Common [M/Chip Advance] CVR Issuer Discretionary Data 00 DF 3C (Contact) [M/Chip Advance] 00 **CVR Issuer Discretionary Data** DF 3D (Contactless) [M/Chip Advance] 00 DF 3F Read Record Filter (Contact) [M/Chip Advance] 00 Read Record Filter (Contactless) DF 40 [M/Chip Advance] DF 41 DS Management Control [M/Chip 20 Advance]

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

Cardhol	Cardholder Verification Method List (0205 4203 1F03 0000')				
CVM	Verification Method	Conditions	If unsuccessful		
1	Online PIN	Purchase with Cashback	Fail		
2	Online PIN	Terminal supports CVM type	Next CVM		
3	No CVM required	Terminal supports CVM type	Fail		
4	Fail CVM Processing	Always	Fail		

4.8.4 Contact: Application Tag data, AID A000000042203D0562222

Tag	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 - 'US SAVINGS'
57	Track 2 Equivalent Data	54 13 33 00 89 09 90 15 D2 51 22 20
		14 83 59 49 00 OF
5A	Application Primary Account Number	54 13 33 00 89 09 90 15
	(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 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'

^{*} Tag value changes with card usage

Tag	Element name	Data Card v5.x	
82	Application Interchange Profile	18 00	
	- 11	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	
00	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01	
	1 (00021)	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	
05.44	0. 4.41	20 20 20 20 - 'US Savings'	
9F 14	Counter 1 Lower Limit [Mastercard]	00	
9F 17	Personal Identification Number (PIN)	03	
05.00	Try Counter	00	
9F 23	Counter 1 Upper Limit [Mastercard]		
9F 26	Application Cryptogram (AC)	80 × × × × × × × × × × × × × ×	
9F 27	Cryptogram Information Data (CID)		
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 42	Application Currency Code	08 40 - USD 0B 0A	
9F 4D	Transaction Log Entry		
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	

Tag Element name Data Card v5.x 04 10 0B 14 00 01 00 00 50 17 79 00 9F 7E Application Life Cycle Data [Mastercard] AO 00 00 00 04 22 03 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00 C3 Card Issuer Action Code (Contact) -00 00 00 Decline [M/Chip Advance] 06 00 00 C4 Card Issuer Action Code (Contact) -Default [M/Chip Advance] 06 00 00 C5 Card Issuer Action Code (Contact) -Online [M/Chip Advance] ივ PIN Try Limit [M/Chip Advance] C6 42 C7 CDOL1 Related Data Length [Mastercard] C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code 08 40 - USD [Mastercard] CA 00 00 00 00 00 00 Accumulator 1 Lower Limit [Mastercard] Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CB 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] CF 00 00 00 Card Issuer Action Code (Contactless) -Decline [M/Chip Advance] 08 40 00 00 00 08 40 00 00 00 08 40 D1 Accumulator 1 Currency Conversion 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] 00 D3 Additional Check Table [Mastercard] 00 00 00 FF D5 80 00 80 00 C6 02 Application Control [M/Chip Advance] 00 10 D6 Default ARPC Response Code [M/Chip Advance1 00 00 00 00 00 00 D7 Application Control [M/Chip Advance] 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] C1 DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] 00 **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] Accumulator 2 Currency Code 09 99 DF 16 [Mastercard] Accumulator 2 Currency Conversion 09 99 00 00 00 09 99 00 00 00 09 99 DF 17 00 00 00 09 99 00 00 00 09 99 00 00 Table [Mastercard] იი 00 00 00 00 00 00 **DF 18** Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 DF 19 Accumulator 2 Upper Limit [Mastercard] C1 DF 1A Counter 1 Control (Contact) [M/Chip Advance1 00 DF 1B Counter 1 Control (Contactless) [M/Chip Advance1 00 DF 1D Counter 2 Control (Contact) [M/Chip Advance]

T	Florestones	D. I.
Tag	Element name	Data Card v5.x
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
	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
5, 65	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
	Advance]	
DF 40	Read Record Filter (Contactless)	00
51 40	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
	Advance]	
	Auvanoej	

^{*} Tag value changes with card usage

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

Cardhol	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		
	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	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:		
0.4	Dell'este I E'lle (DE) Nesses	b8 - EMV mode NOT supported A0 00 00 04 10 10		
84	Dedicated File (DF) Name	01		
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 42 03		
	List	5E 03 1F 00 00 00		
	1			

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	
		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	
	Advance]	xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	4D 61 73 74 65 72 63 61 72 64 20 20	
05.44	On the Albertain Black Black	20 20 20 20 - 'Mastercard'	
9F 14	Counter 1 Lower Limit [Mastercard]	00	
9F 17	Personal Identification Number (PIN)	09	
9F 23	Try Counter 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	
	Transaction Log Comman	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	
C3	Card Issuer Action Code (Contact) -	00 00 00	
	Decline [M/Chip Advance]		
C4	Card Issuer Action Code (Contact) -	1F 50 00	
	Default [M/Chip Advance]		
C5	Card Issuer Action Code (Contact) -	3F FB 00	
	Online [M/Chip Advance]		
C6	PIN Try Limit [M/Chip Advance]	09	
C7	CDOL1 Related Data Length	42	
	[Mastercard]	00.40.1104	
C8	CRM Country Code [Mastercard]	08 40 - USA	
C9	Accumulator 1 Currency Code	08 40 - USD	
CA	[Mastercard]	00 00 00 00 00 00	
CA CB	Accumulator 1 Lower Limit [Mastercard] 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]		
		<u> </u>	

Card v5.x Tag Element name Data 00 00 00 CF Card Issuer Action Code (Contactless) -Decline [M/Chip Advance] D1 Accumulator 1 Currency Conversion 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] 00 D3 Additional Check Table [Mastercard] 00 00 00 FF 86 00 80 00 C6 02 D5 Application Control [M/Chip Advance] 00 10 D6 Default ARPC Response Code [M/Chip **Advancel** D7 Application Control [M/Chip Advance] 00 00 00 00 00 00 D9 Application File Locator (Contactless) 00 00 00 00 00 00 00 00 00 Log Data Table [M/Chip Advance] DE 00 DF 02 Security Limits Status (Contact) [M/Chip Advance] DF 11 Accumulator 1 Control (Contact) C1 [M/Chip Advance] Accumulator 1 Control (Contactless) 00 DF 12 [M/Chip Advance] 00 Accumulator 2 Control (Contact) **DF 14** [M/Chip Advance] 00 Accumulator 2 Control (Contactless) DF 15 [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 00 00 00 09 99 00 00 00 09 99 00 00 Table [Mastercard] 00 Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 **DF 18** 00 00 00 00 00 00 DF 19 Accumulator 2 Upper Limit [Mastercard] C1 DF 1A Counter 1 Control (Contact) [M/Chip Advance] Counter 1 Control (Contactless) [M/Chip 00 DF 1B Advance1 Counter 2 Control (Contact) [M/Chip 00 DF 1D Advance] DF 1E Counter 2 Control (Contactless) [M/Chip 00 Advance] 00 DF 1F Counter 2 Lower Limit [Mastercard] 00 DF 21 Counter 2 Upper Limit [Mastercard] 00 00 00 00 00 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 DF 23 MTA CVM (Contactless) [M/Chip Advance1 08 40 DF 24 MTA Currency Code [M/Chip Advance] DF 25 MTA NoCVM (Contact) [M/Chip 00 00 00 00 00 00 Advance1 00 00 00 00 00 00 DF 26 MTA NoCVM (Contactless) [M/Chip Advance] 00 00 Number Of Days Offline Limit [M/Chip **DF 27** Advance] 00 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 Accumulator 2 CVR Dependency Data DF 2A (Contact) [M/Chip Advance] 00 00 00 Accumulator 2 CVR Dependency Data DF 2B (Contactless) [M/Chip Advance]

Data Card v5.x Tag Element name 00 00 00 DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data 00 00 00 (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] 01 DF 30 Interface Enabling Switch [M/Chip Advance] 00 DF 35 Security Limits Status (Contactless) [M/Chip Advance] Security Limits Status Common [M/Chip 00 DF 37 Advance] 00 **CVR Issuer Discretionary Data** DF 3C (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] DF 40 Read Record Filter (Contactless) 00 [M/Chip Advance] DS Management Control [M/Chip 20 **DF 41** Advance]

4.9.3 Contact: CVM List - Maestro debit, AID A0000000043060

Cardho	Cardholder Verification Method List ('4103 0203 0000')			
CVM	Verification Method	Conditions	If unsuccessful	
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM	
2	Online PIN	Terminal supports CVM type	Fail	
3	Fail CVM Processing	Always	Fail	

4.9.4 Contact: Application Tag data, AID A0000000043060

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 2	20 20 20
		20 20 20 20 - 'MAESTRO'	
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 00 05 1	1D 25 12
		22 01 48 35 94 90 0F	
5A	Application Primary Account Number	67 99 99 89 00 00 02 00 05 1	1F
	(PAN)		
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2	
		73 74 20 43 61 72 64 20 30 3	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'	

^{*} Tag value changes with card usage

Application Interchange Profile	Tag	Element name	Data Card v5.x	
BYTE 1:				
B6 - Offline DDA NOT supported		3		
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 b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2:				
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 DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b2 - Application Priority Indicator Q2				
B3 - Issuer authentication NOT supported via External Auth command				
External Auth command D2 - On device Cardholder verification NOT Supported D1 - On Device Cardholder verification NOT Supported D1 - Combined DDA / GEN AC NOT supported D1 - Combined DDA / GEN AC NOT supported BYTE 2: D3 - EM/V mode NOT supported D3 - On 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
B2				
Supported D1 - Combined DDA / GEN AC NOT supported BYTE 2: B8 - EMV mode NOT supported BYTE 2: B7 D2 D6 D7 D8 D8 D8 D8 D8 D8 D8				
84				
BYTE 2: B8 - EMV mode NOT supported				
Action Dedicated File (DF) Name Action A				
87 Application Priority Indicator 92 97 02 06 9F 03 06 9F 12 02 95 05 55 55 14 16 16 10 16 16 16 16 16			b8 - EMV mode NOT supported	
SC				
1 (CDOL1)		Application Priority Indicator		
SD	8C	Card Risk Management Data Object List		
SD		1 (CDOL1)		
Sample				
Section Cardholder Verification Method (CVM) 00 00 00 00 00 00 00 00 41 03 02 03	0D	Cord Dick Management Data Object List		
SE	עא		JI VA OA UZ JJ UJ JE J/ U4 JE 4C U6	
List	0.		00 00 00 00 00 00 00 00 41 03 03 03	
Application File Locator (AFL)	δE	· · · · · · · · · · · · · · · · · · ·		
9F 07 Application File Locator (AFL)	0.4			
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 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 b7 - International cashback allowed b7 - International cashback allowed b8 - Domestic cashback allowed b8 - Domestic cashback allowed b9 - International cashback allowed b7 - Inter			** *= *= **	
b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7	9F 07	Application Usage Control		
b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b1 - non-ATM terminals valid b2 - ATMS valid b1 - non-ATM terminals valid b2 - Nonestic cashback allowed b7 - International cashb			- · · - · ·	
b5 - International goods valid b4 - Domestic services 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 allo				
b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b1 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allo			b6 - Domestic goods valid	
b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Internation				
b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b8 - 00 b8 - 00 b8 - 00 b8 b7 - International cashback allowed b8 - 00 b7 - 100 b7 - 100				
BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed				
B8 - Domestic cashback allowed b7 - International cashback allowed 9F 0D Issuer Action Code - Default B0 50 BC 88 00				
B7 - International cashback allowed				
9F 08 Application Version Number 00 02 9F 0D Issuer Action Code - Default 80 50 8C 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online 80 70 8C 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx				
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 Advance] xx 10 xx	9F 08	Application Version Number		
9F 0E Issuer Action Code - Denial 00 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx	9F 0D		B0 50 BC 88 00	
9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx	9F 0E		00 00 00 00 00	
9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx			B0 70 BC 98 00	
Advance]			xx 10 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 20 20 20 20 20 20 20 20		· · · · · · · · · · · · · · · · · · ·	xx xx xx xx xx xx *	
9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 20 20 20 20 20 20 20 20 20 20 20 20 20	9F 11	•	01	
Section Sect			4D 61 65 73 74 72 6F 20 20 20 20 20	
9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 17 Personal Identification Number (PIN)			20 20 20 - 'Maestro'	
9F 17 Personal Identification Number (PIN) Try Counter 03 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx	9F 14	Counter 1 Lower Limit [Mastercard]		
Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx			03	
9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx		, ,		
9F 26 Application Cryptogram (AC) xx	9F 23		00	
9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) ** ** * 9F 42 Application Currency Code 08 40 - USD 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F			xx xx xx xx xx xx xx *	
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			80	
9F 42 Application Currency Code 08 40 - USD 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F	9F 36		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			08 40 - USD	
9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F				
36 02 9F 52 06 DF 3E 01 9F 21 03 9F			9F 27 01 9F 02 06 5F 2A 02 9A 03 9F	
7C 14	''			
			7C 14	

Tag Element name Data Card v5.x 04 10 0B 14 00 01 00 00 50 17 79 00 9F 7E Application Life Cycle Data [Mastercard] AO 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] 1F 50 00 C4 Card Issuer Action Code (Contact) -Default [M/Chip Advance] 3F FB 00 C5 Card Issuer Action Code (Contact) -Online [M/Chip Advance] ივ PIN Try Limit [M/Chip Advance] C6 42 C7 CDOL1 Related Data Length [Mastercard] C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code 08 40 - USD [Mastercard] CA 00 00 00 00 00 00 Accumulator 1 Lower Limit [Mastercard] Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CB 06 50 00 CD Card Issuer Action Code (Contactless) -Default [M/Chip Advance] 06 FB 00 CE Card Issuer Action Code (Contactless) -Online [M/Chip Advance] CF 00 00 00 Card Issuer Action Code (Contactless) -Decline [M/Chip Advance] 08 40 00 00 00 08 40 00 00 00 08 40 D1 Accumulator 1 Currency Conversion 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] 00 D3 Additional Check Table [Mastercard] 00 00 00 FF D5 84 00 80 00 C6 02 Application Control [M/Chip Advance] 00 10 D6 Default ARPC Response Code [M/Chip Advance1 80 00 80 00 C6 02 D7 Application Control [M/Chip Advance] 08 01 01 00 08 03 03 00 D9 Application File Locator (Contactless) DE Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 DF 02 Security Limits Status (Contact) [M/Chip 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) [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] Accumulator 2 Currency Code 09 99 DF 16 [Mastercard] Accumulator 2 Currency Conversion 09 99 00 00 00 09 99 00 00 00 09 99 DF 17 00 00 00 09 99 00 00 00 09 99 00 00 Table [Mastercard] იი 00 00 00 00 00 00 **DF 18** Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 DF 19 Accumulator 2 Upper Limit [Mastercard] C1 DF 1A Counter 1 Control (Contact) [M/Chip Advance1 C1 DF 1B Counter 1 Control (Contactless) [M/Chip Advance1 00 DF 1D Counter 2 Control (Contact) [M/Chip Advance]

DF 1E			-
Advance	Tag	Element name	Data Card v5.x
DF 1F Counter 2 Lower Limit [Mastercard]	DF 1E		00
DF 21 Counter 2 Upper Limit [Mastercard] 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00			
DF 22 MTA CVM (Contact) [W/Chip Advance]			
DF 23 MTA CVM (Contactless) [M/Chip Advance]			
Advance] DF 24 MTA Currency Code [M/Chip Advance] DF 25 MTA NoCVM (Contact) [M/Chip Advance] DF 26 MTA NoCVM (Contactless) [M/Chip Advance] DF 27 Number Of Days Offline Limit [M/Chip Advance] DF 28 Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 29 Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 20 Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 21 Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 22 Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 23 Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 24 Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 25 Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 26 Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 27 Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 28 Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 29 Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 29 Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance] DF 31 Security Limits Status (Contactless) [M/Chip Advance] DF 32 Security Limits Status (Contactless) [M/Chip Advance] DF 33 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 34 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 35 Read Record Filter (Contact) [M/Chip Advance] DF 36 Read Record Filter (Contact) [M/Chip Advance]	DF 22	MTA CVM (Contact) [M/Chip Advance]	
DF 24 MTA Currency Code [M/Chip Advance] 08 40 DF 25 MTA NoCVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 00 00 DF 26 MTA NoCVM (Contactless) [M/Chip Advance] 00 00 00 00 00 00 00 00 DF 27 Number Of Days Offline Limit [M/Chip Advance] 00 00 00 00 00 00 00 DF 28 Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 00 00 00 00 00 00 DF 29 Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 00	DF 23	MTA CVM (Contactless) [M/Chip	00 00 00 00 00
DF 25		Advance]	
DF 25	DF 24	MTA Currency Code [M/Chip Advance]	08 40
DF 26 MTA NoCVM (Contactless) [M/Chip 00 00 00 00 00 00 00 00 00 00			00 00 00 00 00
DF 26		` ,	
DF 27 Number Of Days Offline Limit [M/Chip Advance]	DF 26		00 00 00 00 00
DF 27			
Advance Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	DF 27	2	00 00
DF 28	J. 2.		
Contact) [M/Chip Advance]	DF 28		00 00 00
DF 29 Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2A Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2B Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 3D Interface Enabling Switch [M/Chip Advance] DF 35 Security Limits Status (Contactless) [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 30 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] DF 30 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] DF 37 Read Record Filter (Contact) [M/Chip Advance]	D1 20		
Contactless) [M/Chip Advance] Contact) [M/Chip Advance] Contact) [M/Chip Advance] Contact) [M/Chip Advance] Contactless) [M/Chip Advance] Contactless) [M/Chip Advance] Contactless) [M/Chip Advance] Contact) [M/Chip Advance] Contact) [M/Chip Advance] Contact) [M/Chip Advance] Contactless) [M/Chip Advance] Contactless) [M/Chip Advance] Contact) [M/Chip Advance] Contact) [M/Chip Advance] Contact) [M/Chip Advance] Contact) [M/Chip Advance] Contactless) [M/Chip Advance] CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] CVR Issuer Discretionary Data (CONTACTION CONTACTION CONT	DF 29		00 00 00
DF 2A Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 3D Interface Enabling Switch [M/Chip Advance] DF 35 Security Limits Status (Contactless) [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 30 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] DF 31 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] DF 32 Read Record Filter (Contact) [M/Chip Advance]	D1 23		
(Contact) [M/Chip Advance] DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance] DF 35 Security Limits Status (Contactless) [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 38 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 39 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] DF 30 CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] DF 37 Read Record Filter (Contact) [M/Chip Advance]	DF 2A		00 00 00
DF 2B	טו אַר		
Contactless) [M/Chip Advance]	DE 2B		00 00 00
DF 2C	DF ZB		
Contact) [M/Chip Advance] Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 30	DE ac		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] DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance] DF 35 Security Limits Status (Contactless) [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 37 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 30 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 37 Read Record Filter (Contact) [M/Chip Advance]	DF 2C		00 00 00
Contactless [M/Chip Advance]	DE 2D		00 00 00
DF 2E	DF ZD		00 00 00
Contact) [M/Chip Advance] DF 2F	DE OF		00 00 00
DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance] DF 35 Security Limits Status (Contactless) [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 3C CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3D CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip Advance]	DF ZE		00 00 00
Contactless) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance] DF 35 Security Limits Status (Contactless) [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 30 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 30 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip Advance] O0 Contactless Con	DE OF		00 00 00
DF 30 Interface Enabling Switch [M/Chip Advance] DF 35 Security Limits Status (Contactless) [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 3C CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3D CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip Advance]	DF ZF		00 00 00
Advance] DF 35 Security Limits Status (Contactless) [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 3C CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3D CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3D CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip Advance]	DE 00		01
DF 35 Security Limits Status (Contactless) [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 3C CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3D CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip Advance]	DF 30		01
[M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 3C CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3D CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip Advance] DF 3F Advance]			
DF 37 Security Limits Status Common [M/Chip Advance] DF 3C CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3D CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip Advance] DF 3F Advance]	DF 35		00
Advance] DF 3C CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3D CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip Advance] DF 3F Advance]			
DF 3C CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3D CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip Advance]	DF 37		00
(Contact) [M/Chip Advance] DF 3D CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip Advance] Output DF 3F Advance]		•	
DF 3D CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip Advance] O0 00 00 00	DF 3C		00
(Contactless) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip Advance]			
DF 3F Read Record Filter (Contact) [M/Chip Advance] 00	DF 3D	•	00
Advance]			
	DF 3F	Read Record Filter (Contact) [M/Chip	00
DE 40 Deced Deced Filter (Contactless) 00		Advance]	
DF 40 Read Record Filter (Contactiess) 00	DF 40	Read Record Filter (Contactless)	00
[M/Chip Advance]		[M/Chip Advance]	
DF 41 DS Management Control [M/Chip 20	DF 41		20
Advance			

^{*} Tag value changes with card usage

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

4.9.6 Contact: Application Tag data, AID A0000000042203

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 2	
		20 20 20 - 'US MAESTRO'	
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 00 05 1D 25 12	
	A 11 11 D 1	22 01 48 35 94 90 0F	
5A	Application Primary Account Number	67 99 99 89 00 00 02 00 05 1F	
5F 20	(PAN) Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65	
5F 2U	Cardnoider Name	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'	
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	
87	Application Priority Indicator	03	
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F	
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01	
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14	
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08	
OD	2 (CDOL2)		
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 05 42 03	
"-	List	1F 03 00 00 00 00	
94	Application File Locator (AFL)	08 01 01 00 08 03 03 00	
94	Application File Locator (AFL)	08 01 01 00 08 03 03 00	
9F 07	Application Usage Control	FF CO	
		BYTE 1:	
		b8 - Domestic cash 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	
	· · · · · · · · · · · · · · · · · · ·	i	

Tag Card v5.x Element name Data xx 10 xx 9F 10 Issuer Application Data [M/Chip xx xx xx xx xx ** Advance1 9F 11 Issuer Code Table Index 55 53 20 4D 61 65 73 74 72 6F 20 20 9F 12 **Application Preferred Name** 20 20 20 - 'US Maestro' 9F 14 Counter 1 Lower Limit [Mastercard] 00 03 9F 17 Personal Identification Number (PIN) Try Counter Counter 1 Upper Limit [Mastercard] 00 9F 23 Application Cryptogram (AC) xx xx xx xx xx xx xx ** 9F 26 80 9F 27 Cryptogram Information Data (CID) Application Transaction Counter (ATC) xx xx * 9F 36 08 40 - USD 9F 42 **Application Currency Code** 0B 0A 9F 4D Transaction Log Entry 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 9F 4F **Transaction Log Format** 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14 04 10 0B 14 00 01 00 00 50 17 79 00 9F 7E Application Life Cycle Data [Mastercard] A0 00 00 00 04 30 60 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 C3 Card Issuer Action Code (Contact) -Decline [M/Chip Advance] C4 Card Issuer Action Code (Contact) -06 50 00 Default [M/Chip Advance] 06 FB 00 C5 Card Issuer Action Code (Contact) -Online [M/Chip Advance] 03 C6 PIN Try Limit [M/Chip Advance] CDOL1 Related Data Length 42 C7 [Mastercard] C8 CRM Country Code [Mastercard] 08 40 - USA 08 40 - USD 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] 06 50 00 CD Card Issuer Action Code (Contactless) -Default [M/Chip Advance] CE Card Issuer Action Code (Contactless) -06 FB 00 Online [M/Chip Advance] 00 00 00 CF Card Issuer Action Code (Contactless) -Decline [M/Chip Advance] Accumulator 1 Currency Conversion 08 40 00 00 00 08 40 00 00 00 08 40 D1 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] 00 00 00 00 FF FF FF FF FF FF FF FF D3 Additional Check Table [Mastercard] 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 Advance1 D7 Application Control [M/Chip Advance] 80 00 80 00 C6 02 08 01 01 00 08 03 03 00 D9 Application File Locator (Contactless) 00 00 00 00 00 00 00 00 DE Log Data Table [M/Chip Advance] 00 DF 02 Security Limits Status (Contact) [M/Chip Advance] Accumulator 1 Control (Contact) C1 DF 11 [M/Chip Advance] Accumulator 1 Control (Contactless) C1 DF 12 [M/Chip Advance]

Tag Data Card v5.x Element name 00 Accumulator 2 Control (Contact) DF 14 [M/Chip Advance] **DF 15** Accumulator 2 Control (Contactless) 00 [M/Chip Advance] **DF 16** Accumulator 2 Currency Code 09 99 [Mastercard] 09 99 00 00 00 09 99 00 00 00 09 99 **DF 17** Accumulator 2 Currency Conversion 00 00 00 09 99 00 00 00 09 99 00 00 Table [Mastercard] 00 00 00 00 00 00 00 **DF 18** Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 DF 19 Accumulator 2 Upper Limit [Mastercard] C1 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 Advancel 00 DF 1F Counter 2 Lower Limit [Mastercard] 00 DF 21 Counter 2 Upper Limit [Mastercard] 00 00 00 00 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 MTA CVM (Contactless) [M/Chip DF 23 Advance1 DF 24 MTA Currency Code [M/Chip Advance] 08 40 00 00 00 00 00 00 **DF 25** MTA NoCVM (Contact) [M/Chip Advance1 00 00 00 00 00 00 **DF 26** MTA NoCVM (Contactless) [M/Chip 00 00 DF 27 Number Of Days Offline Limit [M/Chip Advance1 00 00 00 **DF 28** Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] Accumulator 1 CVR Dependency Data 00 00 00 **DF 29** (Contactless) [M/Chip Advance] Accumulator 2 CVR Dependency Data 00 00 00 DF 2A (Contact) [M/Chip Advance] 00 00 00 DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 DF₂C 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 Counter 2 CVR Dependency Data DF 2E (Contact) [M/Chip Advance] 00 00 00 DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] **DF 30** Interface Enabling Switch [M/Chip 01 Advance1 **DF 35** Security Limits Status (Contactless) 00 [M/Chip Advance] 00 Security Limits Status Common [M/Chip **DF 37** Advance] **CVR Issuer Discretionary Data** 00 DF 3C (Contact) [M/Chip Advance] DF 3D **CVR Issuer Discretionary Data** 00 (Contactless) [M/Chip Advance]

Tag	Element name	Data	Card v5.x
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	

^{*} Tag value changes with card usage

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 A0000000043060

Cardholder Verification Method List ('0205 4203 1F03')			
CVM Verification Method Conditions If unsuccessful		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 A0000000043060

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 - 'US
		MAESTRO'	
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2	51 22 20
		08 08 10 79 00 00 0F	
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 91 30	
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54	
		73 74 20 43 61 72 64 20 31	
		20 20 - 'USA DEBIT/Test Card 10	,
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
<u></u>	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	Dedicated File (DF) Name	b8 - EMV mode NOT supported A0 00 00 00 04 22 03
84	Dedicated File (DF) Name	01
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
	I (CDOLI)	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
		BB 9D 1D 75 AO 2F AA 9C 81 4A FC 58
92	Issuer Public Key Remainder	D3 52 41 07
94	Application File Locator (AFL)	08 02 04 01 18 01 01 00 20 01 01 00
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash 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 4]	xx 14 xx
05.44	Lance On the Table I. I.	xx xx xx xx xx x *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 4D 61 65 73 74 72 6F - 'US Maestro'
9F 14	Lower Consecutive Offline Limit	Maestro 00
9F 14	Personal Identification Number (PIN)	01
əi⁻ 1 <i>1</i>	Try Counter	
L	iny Counter	

Data Element name Tag Card v6.x 30 36 32 39 33 30 34 32 33 30 30 30 9F 1F Track 1 Discretionary Data 30 30 30 30 30 30 30 30 30 30 30 9F 23 Upper Consecutive Offline Limit 00 **xx xx xx xx xx xx xx xx *** 9F 26 Application Cryptogram (AC) 80 9F 27 Cryptogram Information Data (CID) 03 9F 32 Issuer Public Key Exponent xx xx * 9F 36 Application Transaction Counter (ATC) 9F 42 **Application Currency Code** 08 40 - USD 02 9F 44 **Application Currency Exponent** 9F 46 ICC Public Key Certificate 4C BF 13 28 20 81 6C 78 CE AF C1 CB 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 CO 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 0B 0A 9F 4D Transaction Log Entry 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 9F 4F Transaction Log Format 36 02 9F 52 06 9F 7E Application Life Cycle Data [Mastercard] 03 10 0C 12 00 09 00 00 FF 00 04 00 00 02 60 00 00 38 4A 02 11 50 35 43 44 30 37 32 20 C3 00 00 00 Card Issuer Action Code - Decline [Mastercard] 06 50 00 C4 Card Issuer Action Code - Default [Mastercard] 06 FB 00 C5 Card Issuer Action Code - Online [Mastercard] C6 Counters [Mastercard] 00 01 00 00 00 00 00 00 00 00 CDOL1 Related Data Length 2B C7 [Mastercard] C8 CRM Country Code [Mastercard] 08 40 - USA 08 40 - USD CRM Currency Code [M/Chip4] C9 00 00 00 00 00 00 CA Lower Cumulative Offline Transaction Amount [M/Chip] CB **Upper Cumulative Offline Transaction** 00 00 00 00 00 00 Amount [M/Chip] 08 40 00 01 00 08 40 00 01 00 08 40 D1 Currency Conversion Table [M/Chip] 00 01 00 08 40 00 01 00 08 40 00 01 D3 Additional Check Table [Mastercard] 00 00 00 FF 82 00 D5 Application Control [M/Chip] D6 Default ARPC Response Code 00 10 [M/Chip4] 00 Security Limits Status [Mastercard]

^{*} 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 A0000000041010

Cardho	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 A0000000041010

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
F A	Application Dringery Associat Number	14 83 59 49 00 0F 54 13 33 00 89 02 00 60
5A	Application Primary Account Number (PAN)	
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 31 31 20 20
EE 04	Application Expiration Data	20 20 - 'USA DEBIT/Test Card 11'
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)
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 DVTF 4
		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
30	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
	1 (0001)	9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14

Tag Element name Data Card v5.x 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 8D Card Risk Management Data Object List 8E Cardholder Verification Method (CVM) 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 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 00 02 9F 08 **Application Version Number** B0 50 BC 88 00 Issuer Action Code - Default 9F 0D 00 00 00 00 00 9F 0E Issuer Action Code - Denial 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 xx 10 xx xx xx xx xx xx xx xx xx Issuer Application Data [M/Chip **xx xx xx xx xx *** Advance] 01 9F 11 Issuer Code Table Index 4D 61 73 74 65 72 63 61 72 64 20 44 9F 12 Application Preferred Name 65 62 69 74 - 'Mastercard Debit' იი 9F 14 Counter 1 Lower Limit [Mastercard] 09 9F 17 Personal Identification Number (PIN) Try Counter Counter 1 Upper Limit [Mastercard] 00 9F 23 9F 26 Application Cryptogram (AC) xx xx xx xx xx xx xx ** * 9F 27 Cryptogram Information Data (CID) 80 Application Transaction Counter (ATC) xx xx * 9F 36 9F 42 **Application Currency Code** 08 40 - USD 9F 4D 0B 0A Transaction Log Entry 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] AO 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 C3 Card Issuer Action Code (Contact) -00 00 00 Decline [M/Chip Advance] 06 00 00 C4 Card Issuer Action Code (Contact) -Default [M/Chip Advance] 3F FB 00 C5 Card Issuer Action Code (Contact) -Online [M/Chip Advance] PIN Try Limit [M/Chip Advance] 09 C6 C7 CDOL1 Related Data Length 42 [Mastercard] 08 40 - USA C8 CRM Country Code [Mastercard] 08 40 - USD 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] 06 50 00 CD Card Issuer Action Code (Contactless) -Default [M/Chip Advance]

Card v5.x Tag Element name Data 06 FB 00 CE Card Issuer Action Code (Contactless) -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 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] 00 D3 Additional Check Table [Mastercard] 00 00 00 FF 84 00 80 00 C6 02 D5 Application Control [M/Chip Advance] D6 Default ARPC Response Code [M/Chip 00 10 Advance1 80 00 80 00 C6 02 D7 Application Control [M/Chip Advance] 08 01 01 00 08 03 03 00 D9 Application File Locator (Contactless) 00 00 00 00 00 00 00 00 00 Log Data Table [M/Chip Advance] DE DF 02 Security Limits Status (Contact) [M/Chip 00 Advance] Accumulator 1 Control (Contact) C1 DF 11 [M/Chip Advance] C1 Accumulator 1 Control (Contactless) **DF 12** [M/Chip Advance] 00 Accumulator 2 Control (Contact) DF 14 [M/Chip Advance] DF 15 Accumulator 2 Control (Contactless) 00 [M/Chip Advance] DF 16 Accumulator 2 Currency Code 09 99 [Mastercard] 09 99 00 00 00 09 99 00 00 00 09 99 DF 17 Accumulator 2 Currency Conversion 00 00 00 09 99 00 00 00 09 99 00 00 Table [Mastercard] 00 DF 18 Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 00 DF 19 Accumulator 2 Upper Limit [Mastercard] Counter 1 Control (Contact) [M/Chip C1 DF 1A Advance1 Counter 1 Control (Contactless) [M/Chip C1 DF 1B Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 Advance] 00 DF 1E Counter 2 Control (Contactless) [M/Chip Advance1 00 DF 1F Counter 2 Lower Limit [Mastercard] 00 Counter 2 Upper Limit [Mastercard] DF 21 00 00 00 00 00 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 DF 23 MTA CVM (Contactless) [M/Chip **DF 24** MTA Currency Code [M/Chip Advance] 08 40 00 00 00 00 00 00 DF 25 MTA NoCVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 MTA NoCVM (Contactless) [M/Chip **DF 26** Advance] 00 00 **DF 27** Number Of Days Offline Limit [M/Chip Advance] 00 00 00 **DF 28** Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 Accumulator 1 CVR Dependency Data **DF 29** (Contactless) [M/Chip Advance] 00 00 00 Accumulator 2 CVR Dependency Data DF 2A (Contact) [M/Chip Advance]

Element name Data Card v5.x Tag 00 00 00 DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF₂C 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] 01 DF 30 Interface Enabling Switch [M/Chip Advance] Security Limits Status (Contactless) 00 DF 35 [M/Chip Advance] 00 Security Limits Status Common [M/Chip **DF 37** Advance] 00 **CVR Issuer Discretionary Data** DF 3C (Contact) [M/Chip Advance] 00 **CVR Issuer Discretionary Data** DF 3D (Contactless) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip 00 Advance1 Read Record Filter (Contactless) 00 **DF 40** [M/Chip Advance] DF 41 DS Management Control [M/Chip 20 Advance]

4.11.3 Contact: CVM List - U.S. checking, AID A000000004220301

Cardho	Cardholder Verification Method List ('0205 4203 1F03')			
CVM	CVM Verification Method Conditions If unsuccessful		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 A000000004220301

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
01 20	Garanolaer Name	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'	

^{*} Tag value changes with card usage

Tag	Element name	Data Card v5.x
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 BYTF 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	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
	1 (0001)	9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 05 42 03
	List	1F 03 00 00 00 00
94	Application File Locator (AFL)	08 01 01 00 08 03 03 00
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 43 68 65 63 6B 69 6E 67 20
05.1.		20 20 20 20 - 'US Checking'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	09
05.00	Try Counter	100
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
L		·

Tag Element name Data Card v5.x 04 10 0B 14 00 01 00 00 50 17 79 00 9F 7E Application Life Cycle Data [Mastercard] AO 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 C3 Card Issuer Action Code (Contact) -00 00 00 Decline [M/Chip Advance] 06 50 00 C4 Card Issuer Action Code (Contact) -Default [M/Chip Advance] 06 FB 00 C5 Card Issuer Action Code (Contact) -Online [M/Chip Advance] 0.9 PIN Try Limit [M/Chip Advance] C6 42 C7 CDOL1 Related Data Length [Mastercard] C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code 08 40 - USD [Mastercard] CA 00 00 00 00 00 00 Accumulator 1 Lower Limit [Mastercard] Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CB 06 50 00 CD Card Issuer Action Code (Contactless) -Default [M/Chip Advance] 06 FB 00 CE Card Issuer Action Code (Contactless) -Online [M/Chip Advance] CF 00 00 00 Card Issuer Action Code (Contactless) -Decline [M/Chip Advance] 08 40 00 00 00 08 40 00 00 00 08 40 D1 Accumulator 1 Currency Conversion 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] 00 D3 Additional Check Table [Mastercard] 00 00 00 FF D5 80 00 80 00 C6 02 Application Control [M/Chip Advance] 00 10 D6 Default ARPC Response Code [M/Chip Advance1 80 00 80 00 C6 02 D7 Application Control [M/Chip Advance] 08 01 01 00 08 03 03 00 D9 Application File Locator (Contactless) DE Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 DF 02 Security Limits Status (Contact) [M/Chip 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) [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] Accumulator 2 Currency Code 09 99 DF 16 [Mastercard] Accumulator 2 Currency Conversion 09 99 00 00 00 09 99 00 00 00 09 99 DF 17 00 00 00 09 99 00 00 00 09 99 00 00 Table [Mastercard] იი 00 00 00 00 00 00 **DF 18** Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 DF 19 Accumulator 2 Upper Limit [Mastercard] C1 DF 1A Counter 1 Control (Contact) [M/Chip Advance1 C1 DF 1B Counter 1 Control (Contactless) [M/Chip Advance1 00 DF 1D Counter 2 Control (Contact) [M/Chip Advance]

T	Florestown	D. (
Tag	Element name	Data Card v5.x
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]	
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
J. 00	Advance]	
DF 35	Security Limits Status (Contactless)	00
D. 00	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
D. 07	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
D. 50	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	00
טניים	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
וט וט	Advance]	
DF 40	Read Record Filter (Contactless)	00
51 40	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
01 41	Advance]	
	Auvail0 0]	

^{*} Tag value changes with card usage

4.11.5 Contact: CVM List - Maestro debit, AID A0000000043060

Cardholder Verification Method List ('0205 4103 0203 0000')			
CVM	Verification Method	erification 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 A0000000043060

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 - 'MAESTRO'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 00 05 1D 25 12
- A	Analization Driverny Assessed Number	22 01 48 35 94 90 0F 67 99 99 89 00 00 02 00 05 1F
5A	Application Primary Account Number (PAN)	
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 31 31 20 20
55.04	A sellentine Englishine Date	20 20 - 'USA DEBIT/Test Card 11'
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)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	12
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00
		BYTE 1: b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported 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	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
0.0	Octobril Manager (D. C. C.)	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 02 05 41 03
	List	02 03 00 00 00 00
94	Application File Locator (AFL)	08 01 02 00

Tag Element name Data Card v5.x

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
9F 08	Application Version Number	b7 - International cashback allowed
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denail	00 00 00 00 00
9F 0F	Issuer Action Code - Definal	B0 70 BC 98 00
9F 10	Issuer Application Data [M/Chip	xx 10 xx
31 10	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
0	, ipplication i referred realité	20 20 20 - '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)	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
0. 72	rippilodilon Elio Oyolo Bata [Masterodia]	AO 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
C3	Card Issuer Action Code (Contact) -	00 00 00
0.4	Decline [M/Chip Advance]	06 00 00
C4	Card Issuer Action Code (Contact) -	08 00 00
C5	Default [M/Chip Advance] Card Issuer Action Code (Contact) -	3F FB 00
CS	Online [M/Chip Advance]	31 12 00
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
СВ	Accumulator 1 Upper Limit [Mastercard]	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]	
	Decline [IVI/Onlip Advance]	

Tag Element name Data Card v5.x Accumulator 1 Currency Conversion 08 40 00 00 00 08 40 00 00 00 08 40 D1 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] 00 00 00 00 FF FF FF FF FF FF FF FF D3 Additional Check Table [Mastercard] FF FF FF FF FF D5 Application Control [M/Chip Advance] 84 00 80 00 C6 02 00 10 D6 Default ARPC Response Code [M/Chip Advance1 Application Control [M/Chip Advance] 80 00 80 00 C6 02 D7 D9 Application File Locator (Contactless) 08 01 01 00 08 03 03 00 00 00 00 00 00 00 00 00 Log Data Table [M/Chip Advance] DE Security Limits Status (Contact) [M/Chip 00 DF 02 Advance] C1 DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) C1 [M/Chip Advance] DF 14 Accumulator 2 Control (Contact) 00 [M/Chip Advance] 00 **DF 15** Accumulator 2 Control (Contactless) [M/Chip Advance] 09 99 Accumulator 2 Currency Code DF 16 [Mastercard] **DF 17** Accumulator 2 Currency Conversion 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 Table [Mastercard] 00 00 00 00 00 00 00 Accumulator 2 Lower Limit [Mastercard] DF 18 00 00 00 00 00 00 DF 19 Accumulator 2 Upper Limit [Mastercard] DF 1A Counter 1 Control (Contact) [M/Chip C1 Advance1 C1 DF 1B Counter 1 Control (Contactless) [M/Chip Advance] Counter 2 Control (Contact) [M/Chip 00 DF 1D Advance1 Counter 2 Control (Contactless) [M/Chip 00 DF 1E Advance1 DF 1F Counter 2 Lower Limit [Mastercard] 00 00 DF 21 Counter 2 Upper Limit [Mastercard] 00 00 00 00 00 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 MTA CVM (Contactless) [M/Chip DF 23 Advance] MTA Currency Code [M/Chip Advance] 08 40 **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 Advance1 00 00 **DF 27** Number Of Days Offline Limit [M/Chip Advance] 00 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 Accumulator 2 CVR Dependency Data DF 2B (Contactless) [M/Chip Advance] 00 00 00 Counter 1 CVR Dependency Data DF 2C (Contact) [M/Chip Advance]

Element name Data Card v5.x Tag 00 00 00 DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data 00 00 00 (Contact) [M/Chip Advance] 00 00 00 DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] 01 **DF 30** Interface Enabling Switch [M/Chip Advance] 00 DF 35 Security Limits Status (Contactless) [M/Chip Advance] 00 DF 37 Security Limits Status Common [M/Chip Advance] CVR Issuer Discretionary Data 00 DF 3C (Contact) [M/Chip Advance] 00 **CVR Issuer Discretionary Data** DF 3D (Contactless) [M/Chip Advance] 00 Read Record Filter (Contact) [M/Chip DF 3F Advance] 00 Read Record Filter (Contactless) DF 40 [M/Chip Advance] DF 41 DS Management Control [M/Chip 20 Advance]

4.11.7 Contact: CVM List - U.S. Savings debit, AID A000000004220302

Cardholder Verification Method List ('0205 4203 1F03')			
CVM Verification Method Conditions If unsuccess		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 A000000004220302

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	67 99 99 89 00 00 02 00 05	1F
	(PAN)		
5F 20	Cardholder Name	00 00 12 20 11 00 02 00 11	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'	

^{*} Tag value changes with card usage

Tag	Element name	Data Card v4.x
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 BYTF 2:
		b8 - EMV mode NOT supported
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	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
	1 (05021)	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
05	2 (CDOL2)	00 00 00 00 00 00 00 00 00 00 00
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00
0.4	List	08 01 01 00 08 03 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
05.00	A 1' (' \ \ \ ' \ \ \ \ \ \ \ \ \ \ \ \ \ \	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
9F 11	Advance] Issuer Code Table Index	01
9F 11		55 53 20 53 61 76 69 6E 67 73 20 20
9F 1Z	Application Preferred Name	20 20 20 - 'US Savings'
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

Tag Element name Data Card v4.x 04 10 0B 14 00 01 00 00 50 17 79 00 9F 7E Application Life Cycle Data [Mastercard] A0 00 00 00 04 30 60 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00 C3 Card Issuer Action Code (Contact) -00 00 00 Decline [M/Chip Advance] 06 50 00 C4 Card Issuer Action Code (Contact) -Default [M/Chip Advance] 06 FB 00 C5 Card Issuer Action Code (Contact) -Online [M/Chip Advance] 0.9 PIN Try Limit [M/Chip Advance] C6 42 C7 CDOL1 Related Data Length [Mastercard] C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code 08 40 - USD [Mastercard] CA 00 00 00 00 00 00 Accumulator 1 Lower Limit [Mastercard] Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CB 06 50 00 CD Card Issuer Action Code (Contactless) -Default [M/Chip Advance] 06 FB 00 CE Card Issuer Action Code (Contactless) -Online [M/Chip Advance] CF 00 00 00 Card Issuer Action Code (Contactless) -Decline [M/Chip Advance] 08 40 00 00 00 08 40 00 00 00 08 40 D1 Accumulator 1 Currency Conversion 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] 00 D3 Additional Check Table [Mastercard] 00 00 00 FF D5 80 00 80 00 C6 02 Application Control [M/Chip Advance] 00 10 D6 Default ARPC Response Code [M/Chip Advance1 80 00 80 00 C6 02 D7 Application Control [M/Chip Advance] 08 01 01 00 08 03 03 00 D9 Application File Locator (Contactless) DE Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 DF 02 Security Limits Status (Contact) [M/Chip 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) [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] Accumulator 2 Currency Code 09 99 DF 16 [Mastercard] Accumulator 2 Currency Conversion 09 99 00 00 00 09 99 00 00 00 09 99 DF 17 00 00 00 09 99 00 00 00 09 99 00 00 Table [Mastercard] იი 00 00 00 00 00 00 **DF 18** Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 DF 19 Accumulator 2 Upper Limit [Mastercard] C1 DF 1A Counter 1 Control (Contact) [M/Chip Advance1 C1 DF 1B Counter 1 Control (Contactless) [M/Chip Advance1 00 DF 1D Counter 2 Control (Contact) [M/Chip Advance]

T	Florestown	D. C.
Tag	Element name	Data Card v4.x
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
	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	1

^{*} Tag value changes with card usage

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

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

42		
	Issuer Identification Number (IIN)	60 11 97
50	Application Label	55 53 20 44 45 42 49 54 - 'US DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 00 05 D2 31 22 01
		10 00 07 49 00 00 0F
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 00 05
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 31 32 20 20
		20 20 - 'USA DEBIT/Test Card 12'
5F 24	Application Expiration Date	23 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E 65 73 66 72 - 'enesfr' (English,
		Spanish, French)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 01 52 40 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	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
8D	Card Dick Management Data Chiest List	9F 34 03 91 0A 8A 02 95 05 9F 37 04
_	Card Risk Management Data Object List 2 (CDOL2)	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 03 1F 03
94	Application File Locator (AFL)	08 01 01 00 10 01 01 00 18 01 01 00

Card v5.x Element name Data Tag FF 00 9F 07 **Application Usage Control** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed 00 01 **Application Version Number** 9F 08 9F 0D B0 68 C4 E8 00 Issuer Action Code - Default 00 10 00 00 00 9F 0E Issuer Action Code - Denial B0 68 C4 F8 00 9F 0F Issuer Action Code - Online 9F 10 xx 06 xx xx xx xx xx * Issuer Application Data [DPAS] 03 9F 17 Personal Identification Number (PIN) Try Counter 9F 26 Application Cryptogram (AC) xx xx xx xx xx xx xx ** 9F 27 80 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) xx xx * 9F 02 06 9F 1A 02 5F 2A 02 9A 03 9F 9F 38 **Processing Options Data Object List** 35 01 (PDOL) 0B 0A 9F 4D Transaction Log Entry 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 9F 4F Transaction Log Format 34 03 9F 52 06 9F 1A 02 95 05 9C 01 8A 02 9F 37 04 9F 03 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02 9F 78 Application State [D-PAS] 01 C1 **Application Configuration Options** 15 48 C2 Issuer Life Cycle Data (ILCD) [DPAS] 00 08 40 00 01 00 C3 Currency Conversion Codes 1 [DPAS] 08 40 00 01 00 C4 Currency Conversion Codes 2 [DPAS] C5 01 00 Card Action Code - Denial [DPAS] 2E 1F C6 Card Action Code - Default [DPAS] FE 1F C7 Card Action Code - Online [DPAS] D0 Issuer Application Data ObjectList (IADOL) [DPAS] D2 08 40 - USA CRM Country Code [DPAS] CRM Currency Code [DPAS] D3 08 40 - USD 01 09 41 00 00 41 A0 11 FF 01 01 DF 11 PDOL Check Table - Profile (PDOLP) 00 18 00 08 01 01 00 10 01 01 00 18 **DF 20** Transaction Profile Objects(TPO0) 01 01 00 00 00 00 00 00 00 00 00 00 [DPAS] 00 00 00 00 00 00 00 00 00 00 00 01 00 FE 1F 2E 1F 00 **DF 21** Transaction Profile Objects(TPO1) E0 10 00 08 01 01 00 10 01 01 00 18 02 02 00 00 00 00 00 00 00 00 00 00 [DPAS] 00 00 00 00 00 00 00 00 00 00 00 01 00 FE 1F 2E 1F 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

^{*} Tag value changes with card usage

4.12.3 Contact: CVM List - Discover Debit, AID A0000001523010

Cardholder Verification Method List ('0201 0203 1E03 1F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Next CVM
2	Online PIN	Terminal supports CVM type	Fail
3	Signature (paper)	Terminal supports CVM type	Fail
4	No CVM required	Terminal supports CVM type	Fail

4.12.4 Contact: Application Tag data, AID A0000001523010

Tag	Element name	Data Card v5.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 - 'DISCOVER DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 00 05 D2 31 22 01
		10 00 07 49 00 00 0F 60 11 97 37 00 00 00 05
5A	Application Primary Account Number (PAN)	
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 31 32 20 20 20 20 20 - 'USA DEBIT/Test Card 12'
	Application Expiration Data	20 20 - USA DEBIT/Test Card 12
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 65 73 66 72 - 'enesfr' (English,
5F 30	Service Code	Spanish, French)
5F 34		01
5F 55	Application PAN Sequence Number	55 53 - 'US'
82	Issuer Country Code (alpha2 format) Application Interchange Profile	10 00
02	Application interchange Profile	BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
84	Dedicated File (DF) Name	BYTE 2: b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	BYTE 2:
87	Application Priority Indicator	BYTE 2: b8 - EMV Contactless NOT supported A0 00 00 01 52 30 10 02
	Application Priority Indicator Card Risk Management Data Object List	BYTE 2: b8 - EMV Contactless NOT supported A0 00 00 01 52 30 10
87	Application Priority Indicator	BYTE 2: b8 - EMV Contactless NOT supported A0 00 00 01 52 30 10 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F
87	Application Priority Indicator Card Risk Management Data Object List	BYTE 2: b8 - EMV Contactless NOT supported A0 00 00 01 52 30 10 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01
87 8C	Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1)	BYTE 2: b8 - EMV Contactless NOT supported A0 00 00 01 52 30 10 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 34 03
87 8C	Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List	BYTE 2: b8 - EMV Contactless NOT supported A0 00 00 01 52 30 10 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 34 03
87 8C 8D	Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List 2 (CDOL2)	BYTE 2: b8 - EMV Contactless NOT supported A0 00 00 01 52 30 10 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 34 03 91 0A 8A 02 95 05 9F 37 04

Card v5.x Element name Data Tag FF 00 9F 07 **Application Usage Control** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed 00 01 **Application Version Number** 9F 08 9F 0D B0 68 C4 E8 00 Issuer Action Code - Default 00 10 00 00 00 9F 0E Issuer Action Code - Denial B0 68 C4 F8 00 9F 0F Issuer Action Code - Online 9F 10 xx 06 xx xx xx xx xx * Issuer Application Data [DPAS] 03 9F 17 Personal Identification Number (PIN) Try Counter 9F 26 Application Cryptogram (AC) xx xx xx xx xx xx xx ** 9F 27 80 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) xx xx * 9F 02 06 9F 1A 02 5F 2A 02 9A 03 9F 9F 38 Processing Options Data Object List 35 01 (PDOL) 0B 0A 9F 4D Transaction Log Entry 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 9F 4F Transaction Log Format 34 03 9F 52 06 9F 1A 02 95 05 9C 01 8A 02 9F 37 04 9F 03 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02 9F 78 Application State [D-PAS] 01 C1 **Application Configuration Options** 15 48 C2 Issuer Life Cycle Data (ILCD) [DPAS] 00 08 40 00 01 00 C3 Currency Conversion Codes 1 [DPAS] 08 40 00 01 00 C4 Currency Conversion Codes 2 [DPAS] C5 01 00 Card Action Code - Denial [DPAS] 2E 1F C6 Card Action Code - Default [DPAS] FE 1F C7 Card Action Code - Online [DPAS] D0 Issuer Application Data ObjectList (IADOL) [DPAS] D2 08 40 - USA CRM Country Code [DPAS] CRM Currency Code [DPAS] D3 08 40 - USD 01 09 41 00 00 41 A0 11 FF 01 01 DF 11 PDOL Check Table - Profile (PDOLP) 00 18 00 08 01 01 00 10 01 01 00 18 **DF 20** Transaction Profile Objects(TPO0) 01 01 00 00 00 00 00 00 00 00 00 00 [DPAS] 00 00 00 00 00 00 00 00 00 00 00 01 00 FE 1F 2E 1F 00 **DF 21** Transaction Profile Objects(TPO1) E0 10 00 08 01 01 00 10 01 01 00 18 02 02 00 00 00 00 00 00 00 00 00 00 [DPAS] 00 00 00 00 00 00 00 00 00 00 00 01 00 FE 1F 2E 1F 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

^{*} Tag value changes with card usage

4.12.5 Contactless: CVM List - Discover U.S. Debit, AID A0000001524010

Cardholder Verification Method List ('0203 1F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Terminal supports CVM type	Fail
2	No CVM required	Terminal supports CVM type	Fail

4.12.6 Contactless: Application Tag data, AID A0000001524010

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	55 53 20 44 45 42 49 54 20 20 - 'US
	Application Labor	DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 00 05 D2 31 22 01
		10 00 07 49 00 00 0F
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 00 05
5F 20	Cardholder Name	44 49 53 43 4F 56 45 52 20 43 41 52 44 4D 45 4D 42 45 52 20 - 'DISCOVER CARDMEMBER'
5F 24	Application Expiration Date	23 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E 65 73 66 72 - 'enesfr' (English, Spanish, French)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [DPAS CL]	10 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt NOT to be performed b3 - Issuer authentication NOT supported using External ADDA (OFNIA CAROT supported)
84	Dedicated File (DF) Name	b1 - Combined DDA / GEN AC NOT supported A0 00 00 01 52 40 10
87	Application Priority Indicator	01
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 03 1F 03
94	Application File Locator (AFL)	08 01 02 00 18 01 01 00
9F 07	Application Usage Control	FF 00 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	00 01
9F 10	Issuer Application Data [DPAS CL]	xx 15 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 *
		1

Tag Data Card v5.x Element name 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 9F 38 Processing Options Data Object List 5F 2A 02 9A 03 9C 01 9F 37 04 (PDOL) 9F 4D Transaction Log Entry 9F 4F Transaction Log Format 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 1A 02 95 05 9C 01 8A 02 9F 37 04 9F 03 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02 9F 6C Card Transaction Qualifiers [DPAS] 00 00 00 89 9F 71 Card Processing Requirements [DPAS] 00 89 9F 71 Card Processing Requirements [DPAS] 9F 78 Application State [D-PAS] 01 82 02 00 00 94 04 08 01 01 00 BF 51 Contactless D-PAS MS and ZIP Default Profile C0 03 88 **Contactless Application Configuration** Options (CL-ACO) Issuer Life Cycle Data (ILCD) [DPAS] 00 00 00 00 00 00 00 00 00 00 00 C2 00 C3 Currency Conversion Codes 1 [DPAS] 08 40 00 01 00 08 40 00 01 00 C4 Currency Conversion Codes 2 [DPAS] 00 00 00 00 00 00 C8 Lower Consecutive Offline Amount (LCOA) Limit [DPAS] C9 Upper Consecutive Offline Amount Limit 00 00 00 00 00 00 (UCOA) [DPAS] CA 00 00 00 00 00 00 Single Transaction Amount (STA) Limit [DPAS] 00 CB Lower Consecutive Offline Limit (LCOL) [DPAS] 00 CC **Upper Consecutive Offline Transaction** Limit (UCOL) [DPAS] 00 CD Number of Consecutive Offline Transactions (NCOT) [DPAS] 00 00 00 00 00 00 CE Cumulative Offline Amount [DPAS] D0 Issuer Application Data ObjectList (IADOL) [DPAS] D1 Offline Balance [DPAS] 00 00 00 00 00 00 08 40 - USA D2 CRM Country Code [DPAS] 08 40 - USD D3 CRM Currency Code [DPAS] 00 00 00 00 00 00 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 D7 CVM-STA limit 1 00 00 00 00 00 00 00 00 00 00 00 00 D8 CVM-STA limit 2 00 D9 **CVM-Counter** 00 DA CVM-Cons limit 1 00 DB CVM-Cons limit 2 DE Counter and Accumulator Control C1 01 09 01 01 00 Options (CACO) [D-PAS] DF 11 01 09 41 00 00 41 A0 11 FF 01 01 PDOL Check Table - Profile (PDOLP) [DPAS]

Tag Element name Data Card v5.x 40 40 00 10 00 08 01 02 00 00 00 00 DF 21 Transaction Profile Objects(TPO1) 00 00 00 00 00 00 00 00 00 00 00 [DPAS] 00 00 00 00 00 00 00 00 00 00 00 00 FF 00 A0 8B 00 CRM-CAC Switch Interface [D-PAS] 00 00 00 CRM-CAC Denial [D-PAS] DF 31 C8 7E FF **DF 32** CRM-CAC Online [D-PAS] 98 3E EB **DF 33** CRM-CAC Default [D-PAS] DF 34 CVM Card Action Codes - Online 40 80 DF 35 00 80 CVM Card Action Codes - Signature DF 40 CL-Accumulator 00 00 00 00 00 00 00 00 00 00 00 00 **DF 41 CL-Cum Limit** CL-STA 00 00 00 00 00 00 **DF 42** CL-Counter DF 43 00 00 **DF 44 CL-Cons Limit**

4.12.7 Contactless: Application Tag data, AID A0000001523010

Tag	Element name	Data Card v5.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 - 'DISCOVER DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 00 05 D2 31 22 01
<u>Γ</u> Λ	Application Drive on Account Number	10 00 07 49 00 00 0F 60 11 97 37 00 00 00 05
5A	Application Primary Account Number (PAN)	
5F 20	Cardholder Name	44 49 53 43 4F 56 45 52 20 43 41 52
		44 4D 45 4D 42 45 52 20 - DISCOVER
		CARDMEMBER'
5F 24	Application Expiration Date	23 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E 65 73 66 72 - 'enesfr' (English,
		Spanish, French)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [DPAS	10 00
	CL]	BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported b5 - Cardholder verification supported
		b4 - Terminal risk mgmt NOT to be performed
		b3 - Issuer authentication NOT supported using
		External Auth command
		b1 - Combined DDA / GEN AC NOT supported
84	Dedicated File (DF) Name	A0 00 00 01 52 30 10
87	Application Priority Indicator	02
94	Application File Locator (AFL)	08 01 02 00

^{*} Tag value changes with card usage

Tag	Element name	Data Card v5.x
9F 07	Application Usage Control	FF 00
31 01	Application osage control	BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2: b8 - Domestic cashback NOT allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 01
		xx 15 xx xx xx xx xx xx xx xx *
9F 10	Issuer Application Data [DPAS CL]	
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	OB OA
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
		34 03 9F 52 06 9F 1A 02 95 05 9C 01
		8A 02 9F 37 04 9F 03 06 9F 53 08 9F
05.00	0 17 (0 17 17 17 17 17 17 17 17 17 17 17 17 17	66 04 9F 71 02 9F 6C 02
9F 6C	Card Transaction Qualifiers [DPAS]	00 00
9F 71	Card Processing Requirements [DPAS]	00 8B
9F 71	Card Processing Requirements [DPAS]	00 8B
9F 78	Application State [D-PAS]	01
BF 51	Contactless D-PAS MS and ZIP Default	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
	Commanda Commanda Codo A (DDAC)	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]	
C8	Lower Consecutive Offline Amount	00 00 00 00 00
	(LCOA) Limit [DPAS]	
C9	Upper Consecutive Offline Amount Limit	00 00 00 00 00
	(UCOA) [DPAS]	
CA	Single Transaction Amount (STA) Limit	00 00 00 00 00
	[DPAS]	
CB	Lower Consecutive Offline Limit (LCOL)	00
	[DPAS]	
CC	Upper Consecutive Offline Transaction	00
	Limit (UCOL) [DPAS]	
CD	Number of Consecutive Offline	00
	Transactions (NCOT) [DPAS]	
CE	Cumulative Offline Amount [DPAS]	00 00 00 00 00
D0	Issuer Application Data ObjectList	
	(IADOL) [DPAS]	
D1	Offline Balance [DPAS]	00 00 00 00 00 00
D2	CRM Country Code [DPAS]	08 40 - USA
D3	CRM Currency Code [DFAS]	08 40 - USD
D3	CVM-Accumulator [DPAS]	00 00 00 00 00 00
D5	CVM-Cum limit 1	00 00 00 00 00 00
טט	G v ivi-Guitt illtillt T	00 00 00 00 00

Card v5.x Tag Data Element name 00 00 00 00 00 00 D6 CVM-Cum limit 2 D7 00 00 00 00 00 00 CVM-STA limit 1 00 00 00 00 00 00 CVM-STA limit 2 D8 00 D9 CVM-Counter 00 DA CVM-Cons limit 1 00 DB CVM-Cons limit 2 C1 01 09 01 01 00 DE Counter and Accumulator Control Options (CACO) [D-PAS] 01 09 41 00 00 41 A0 11 FF 01 01 **DF 11** PDOL Check Table - Profile (PDOLP) [DPAS] 40 40 00 10 00 08 01 02 00 00 00 00 DF 21 Transaction Profile Objects(TPO1) 00 00 00 00 00 00 00 00 00 00 00 [DPAS] 00 00 00 00 00 00 00 00 00 00 00 00 FF 00 A0 8B 00 DF 30 CRM-CAC Switch Interface [D-PAS] 00 00 00 DF 31 CRM-CAC Denial [D-PAS] C8 7E FF DF 32 CRM-CAC Online [D-PAS] 98 3E EB DF 33 CRM-CAC Default [D-PAS] 40 80 **DF 34** CVM Card Action Codes - Online 00 80 DF 35 CVM Card Action Codes - Signature 00 00 00 00 00 00 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 DF 43 **CL-Counter** DF 44 00 **CL-Cons Limit**

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

Cardhol	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 v5.x
42	Issuer Identification Number (IIN)	60 11 97	
50	Application Label	55 53 20 44 45 42 49 54 -	· 'US DEBIT'

^{*} Tag value changes with card usage

Tag Element name Data Card v5.x 60 11 97 37 00 00 00 05 D2 31 22 01 57 Track 2 Data [Discover] 10 00 07 49 00 00 OF 5A **Application Primary Account Number** 60 11 97 37 00 00 00 05 (PAN) 55 53 41 20 44 45 42 49 54 2F 54 65 5F 20 Cardholder Name 73 74 20 43 61 72 64 20 31 33 20 20 20 20 - 'USA DEBIT/Test Card 13' 23 12 31 5F 24 **Application Expiration Date** 5F 25 Application Effective Date xx xx xx * 08 40 - USA 5F 28 **Issuer Country Code** 5F 2D Language Preference 65 6E - 'en' (English) 5F 30 02 01 Service Code 5F 34 Application PAN Sequence Number 01 55 53 - 'US' 5F 55 Issuer Country Code (alpha2 format) 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 A0 00 00 01 52 40 10 84 Dedicated File (DF) Name 87 **Application Priority Indicator** 01 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 8C Card Risk Management Data Object List 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 1 (CDOL1) 9F 34 03 91 0A 8A 02 95 05 9F 37 04 8D Card Risk Management Data Object List 00 00 00 00 00 00 00 00 02 03 1F 03 8E Cardholder Verification Method (CVM) 00 00 00 00 08 01 01 00 10 01 02 00 18 01 01 00 94 Application File Locator (AFL) AB 00 9F 07 **Application Usage Control** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed B0 68 C4 E8 00 9F 0D Issuer Action Code - Default 00 10 00 00 00 9F 0E Issuer Action Code - Denial B0 68 C4 F8 00 9F 0F Issuer Action Code - Online 9F 10 Issuer Application Data [DPAS] xx 06 xx xx xx xx xx * 01 9F 11 Issuer Code Table Index 9F 12 55 53 20 44 65 62 69 74 - 'US Debit' Application Preferred Name 9F 17 Personal Identification Number (PIN) 0.3 Try Counter 9F 26 Application Cryptogram (AC) xx xx xx xx xx xx xx * 9F 27 Cryptogram Information Data (CID) 80 Application Transaction Counter (ATC) xx xx * 9F 36 0B 0A 9F 4D Transaction Log Entry

Data Tag Element name Card v5.x 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 9F 4F Transaction Log Format 34 03 9F 52 06 9F 1A 02 95 05 9C 01 8A 02 9F 37 04 9F 03 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02 9F 78 00 Application State [D-PAS] 15 40 C1 **Application Configuration Options** [DPAS] C2 00 00 00 00 00 00 00 00 00 00 00 Issuer Life Cycle Data (ILCD) [DPAS] 00 C3 Currency Conversion Codes 1 [DPAS] 08 40 00 01 00 08 40 00 01 00 C4 Currency Conversion Codes 2 [DPAS] 01 00 C5 Card Action Code - Denial [DPAS] 2E 1F C6 Card Action Code - Default [DPAS] C7 Card Action Code - Online [DPAS] FE 1F D0 Issuer Application Data ObjectList (IADOL) [DPAS] D2 08 40 - USA CRM Country Code [DPAS] CRM Currency Code [DPAS] 08 40 - USD D3 01 09 41 00 00 41 A0 00 0F 01 01 DF 11 PDOL Check Table - Profile (PDOLP) [DPAS] **DF 20** Transaction Profile Objects(TPO0) 00 18 00 08 01 01 00 10 01 02 00 18 01 01 00 00 00 00 00 00 00 00 00 00 [DPAS] 00 00 00 00 00 00 00 00 00 00 00 01 00 FE 1F 2E 1F 00

4.14 Test Card 14 - DNA, CO, 1 AID (DNA), English, USA, USD

A contact-only, single-AID Debit Network Alliance debit card with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is \$10.00.

4.14.1 Contact: CVM List - DNA, AID A0000006200620

Cardho	Cardholder Verification Method List ('0201 0204 0203 1F03')		
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Fail
2	Online PIN	Manual Cash	Fail
3	Online PIN	Terminal supports CVM type	Fail
4	No CVM required	Always	Fail

4.14.2 Contact: Application Tag data, AID A0000006200620

Tag	Element name	Data	Card v5.x
50	Application Label	44 4E 41 - 'DNA'	
57	Track 2 Data [Discover]	40 00 00 00 00 00 00 28 D2 56 78 00 00 00 35 1F	51 22 01
5A	Application Primary Account Number (PAN)	40 00 00 00 00 00 00 28	

^{*} Tag value changes with card usage

SF 20	Tag	Element name	Data Card v5.x
20 20 - 'USA DEBIT/Test Card 14' SF 25			
SF 24 Application Expiration Date 25 12 31			
SF 25		A 11 0 E 1 0 E 1	
SF 28			
SF 2D			
SF 30 Service Code 02 01			
SF 34 Application PAN Sequence Number 01 18 0 20 34 34 34 34 34 34 34 3			
82			
BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b6 - Offline DDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification 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 BYTE 2: b8 - EMV Contactless NOT supported BYTE 2: b8 - EMV Contactless NOT supported BYTE 2: b8 - EMV Contactless NOT supported DA / GEN AC NOT Supp			
b7 - Offline DDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported BYTE 2: b8 - Domestic acts transactions valid b7 - Intri cash transactions valid b6 - Domestic cash transactions valid b7 - Intri cash transactions valid b6 - Domestic cash transactions valid b6 - Domestic cash transactions valid b7 - Intrinational goods valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cash than ATMs valid BYTE 2: b8 - Domestic cash back NOT allowed b7 - Intermational cashback NOT allowed b7 - Intermatio	02	Application interchange Profile	
b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported BYTE 3: b8 - Domestic Cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic services valid b3 - International services valid b1 - International services valid b2 - ATMs valid BYTE 2: b8 - Domestic cash back NOT allowed b7 - International cashback NOT allowed b7 - Internat			
b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b2 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported BYTE 3: b8 - Days and 3 c 10 sp 1 a 02 sp 5 05 5F 2A 02 9A 03 sp 1 a 02 sp 5 05 5F 3A 04 2 SA 03 sp 1 a 02 sp 5 05 5F 3A 04 2 SA 03 sp 1 a 03 sp 3 d 04 sp 3 a 03 sp 0 1 sp 3 a 03 sp 0 1 sp 3 a 03 sp 0 1 sp 3 a 03 sp 0 a 00 sp 0 sp 0 sp 0 sp 3 a 04 sp 1 a 02 sp 1 a 03 sp 1 a 02 sp 1 a 02 sp 1 a 02 sp 1 a 03 sp 1 a 0			
B3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported BYTE 3: b9 - DO - 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
B1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported BYTE 3: b9 - DOR STE 1: b			
BYTE 2: b8 - EMV Contactless NOT supported			b1 - Combined DDA / GEN AC NOT supported
84 Dedicated File (DF) Name			
87			
SC	84	Dedicated File (DF) Name	A0 00 00 06 20 06 20
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) 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 02 01 02 04 02 03 1F 03 94 Application File Locator (AFL) 08 01 01 00 18 01 02 01 PF 07 Application Usage Control FF 00 BYTE 1: b8 - Domestic cash transactions valid b6 - Domestic services valid b5 - International goods valid b5 - International goods valid b6 - Domestic services valid b7 - Int'l cash transactions valid b7 - ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed			
8D	8C		
SD		1 (CDOL1)	
2 (CDOL2) 8E	8D	Card Risk Management Data Object List	
Cardholder Verification Method (CVM)	טט	•	31 011 011 02 33 03 31 37 04
List	8F		00 00 00 00 00 00 00 00 02 01 02 04
94 Application File Locator (AFL) 08 01 01 00 18 01 02 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 b6 - Domestic goods valid b6 - Domestic services valid b6 - Domestic services valid b7 - International goods valid b7 - International services valid b7 - International services valid b7 - International cashback NOT allowed b7 - Internat	OL.	` ,	
PF 07 Application Usage Control PFF 00 BYTE 1: b8 - Domestic cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NO	94		08 01 01 00 18 01 02 01
BYTE 1: b8 - Domestic cash transactions valid b7 - Int'I cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b5 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - International cashback NOT allowed b9 - International cashback NOT allowed b7 - International cashback NOT allowed b9 - International cashback NOT allowed b7 -			FF 00
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 b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b		11	· · – · ·
b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allo			
b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cas			
b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - In			
b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - International cashback NOT allowed 9F 0B Issuer Action Code - Default F0 40 E4 28 00 9F 0E Issuer Action Code - Denial 00 10 00 00 40 9F 0F Issuer Action Code - Online F0 68 FC F8 00 9F 10 Issuer Application Data [DPAS] xx xx A0 xx			
b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed 9F 08			
BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed 9F 08 Application Version Number 9F 0D Issuer Action Code - Default 9F 0E Issuer Action Code - Denial 9F 0F Issuer Action Code - Denial 9F 0F Issuer Action Code - Online 9F 10 Issuer Application Data [DPAS] 9F 11 Issuer Code Table Index 9F 12 Application Preferred Name 9F 12 Application Preferred Name 9F 13 Personal Identification Number (PIN) Try Counter 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID) 80			
b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed 9F 08 Application Version Number 9F 0D Issuer Action Code - Default 9F 0E Issuer Action Code - Denial 9F 0F Issuer Action Code - Online 9F 0F Issuer Action Code - Online 9F 10 Issuer Application Data [DPAS] 9F 11 Issuer Code Table Index 9F 12 Application Preferred Name 9F 12 Application Preferred Name 9F 13 Personal Identification Number (PIN) Try Counter 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID)			
b7 - International cashback NOT allowed 9F 08 Application Version Number 9F 0D Issuer Action Code - Default 9F 0E Issuer Action Code - Denial 9F 0F Issuer Action Code - Online 9F 10 Issuer Application Data [DPAS] 9F 11 Issuer Code Table Index 9F 12 Application Preferred Name 9F 12 Application Preferred Name 9F 17 Personal Identification Number (PIN) Try Counter 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID)			
9F 0D Issuer Action Code - Default 9F 0E Issuer Action Code - Denial 9F 0F Issuer Action Code - Online 9F 10 Issuer Application Data [DPAS] 9F 11 Issuer Code Table Index 9F 12 Application Preferred Name 9F 17 Personal Identification Number (PIN) Try Counter 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID)			
9F 0E Issuer Action Code - Denial 00 10 00 00 40 9F 0F Issuer Action Code - Online F0 68 FC F8 00 9F 10 Issuer Application Data [DPAS] xx xx A0 xx xx xx xx 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)	9F 08	Application Version Number	00 01
9F 0F Issuer Action Code - Online F0 68 FC F8 00 9F 10 Issuer Application Data [DPAS]	9F 0D	Issuer Action Code - Default	
9F 10 Issuer Application Data [DPAS]			
9F 11 Issuer Code Table Index 9F 12 Application Preferred Name 9F 17 Personal Identification Number (PIN) Try Counter 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID) 90 1 44 65 62 69 74 - 'Debit' 93 3 *** *** *** *** *** *** *** *** ***			
9F 12 Application Preferred Name 9F 17 Personal Identification Number (PIN) Try Counter 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID) 44 65 62 69 74 - 'Debit' 03 *** *** ** ** ** ** ** ** ** ** 80			
9F 17 Personal Identification Number (PIN) Try Counter 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID) 80			
Try Counter 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID) 80			
9F 26 Application Cryptogram (AC) xx	9F 17	` ,	03
9F 27 Cryptogram Information Data (CID) 80	05.00		
31 21 Oryptogram mormation bata (Oib)			
I WE SO I ADDITION TRANSPORTION COUNTAR (ALC) I XX XX *			
	9F 36	Application Transaction Counter (ATC)	
31 4D Transaction Log Entry			
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	9F 4F	ransaction Log Format	
8A 02 9F 37 04 9F 03 06 9F 53 08 9F			
66 04 9F 71 02 9F 6C 02			
9F 78 Application State [D-PAS] 00	9F 78	Application State [D-PAS]	00

Card v5.x Tag Element name Data 15 60 C1 **Application Configuration Options** [DPAS] C2 Issuer Life Cycle Data (ILCD) [DPAS] 00 C3 Currency Conversion Codes 1 [DPAS] 08 40 00 00 02 08 40 00 00 02 C4 Currency Conversion Codes 2 [DPAS] D0 Issuer Application Data ObjectList (IADOL) [DPAS] D2 CRM Country Code [DPAS] 08 40 - USA CRM Currency Code [DPAS] 08 40 - USD D3 DF 20 Transaction Profile Objects(TPO0) 00 18 00 08 01 01 00 18 01 02 01 00 00 00 00 00 00 00 00 00 00 00 00 [DPAS] 00 00 00 00 00 00 00 00 00 00 00 01 00 F6 1F 22 0B 00 00 00 00 00 00 00 00 00 00 00 00 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

Cardho	Cardholder Verification Method List ('0103 0203')		
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Terminal supports CVM type	Fail
2	Online PIN	Terminal supports CVM type	Fail

4.15.2 Contact: Application Tag data, AID A0000002771010

Tag	Element name	Data Card v4.x
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'
57	Track 2 Equivalent Data	19 67 30 28 39 01 86 44 D2 21 22 20 08 97 74 00 00 00 1F
5A	Application Primary Account Number (PAN)	19 67 30 28 39 01 86 44
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 31 35 20 20
		20 20 - 'USA DEBIT/Test Card 15'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	01 24 - CAN
5F 2D	Language Preference	65 6E 66 72 - 'enfr' (English, French)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	01
5F 56	Issuer Country Code (alpha3 format)	43 41 4E - 'CAN'

^{*} Tag value changes with card usage

Tag	Element name	Data Card v4.x
82	Application Interchange Profile	18 00
-	The second of th	BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 45 02
	` ,	9F 4C 08 9F 34 03
8D	Card Risk Management Data Object List	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 01 03 02 03
	List	
94	Application File Locator (AFL)	08 01 02 00 10 01 01 00
9F 07	Application Usage Control	FF 00 BYTF 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid BYTE 2:
		b8 - Domestic cashback NOT allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	FC E8 FC 98 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC E8 FC 98 00
9F 10	Issuer Application Data [InteracFlash]	xx xx 85 xx xx xx xx xx xx xx xx
05.40		xx xx xx xx xx xx xx xx xx *
9F 13	Last Online Application Transaction	00 00
05.47	Counter (ATC) Register	00
9F 17	Personal Identification Number (PIN)	09
05.00	Try Counter	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80 xx xx *
9F 36	Application Transaction Counter (ATC)	
9F 38	Processing Options Data Object List	9F 02 06 9F 1A 02 5F 2A 02 9F 37 04
05.40	(PDOL)	01 04 CAD
9F 42	Application Currency Code	01 24 - CAD
9F 44	Application Currency Exponent	02
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 8A 02
9F 62	Card Product Code [InteracFlash]	00 01
9F 70	Form Factor Indicator [InteracFlash]	00
DF 62	Application Selection Flag [Canada]	80 80
טוע טע	Application Sciedion Flay [Canada]	* Tag value changes with card usage

^{*} Tag value changes with card usage

4.15.3 Contactless: CVM List - Interac Flash, AID A0000002771010

Cardho	Cardholder Verification Method List ('0203 0103')		
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Terminal supports CVM type	Fail
2	Offline Plaintext PIN	Terminal supports CVM type	Fail

4.15.4 Contactless: Application Tag data, AID A0000002771010

Tag	Element name	Data Card v4.x
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'
57	Track 2 Equivalent Data	19 67 30 28 39 01 86 44 D2 21 22 20
	·	08 97 74 00 00 00 1F
5A	Application Primary Account Number (PAN)	19 67 30 28 39 01 86 44
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 31 35 20 20
FF 04	Application Expiration Data	20 20 - 'USA DEBIT/Test Card 15'
5F 24	Application Expiration Date	xx xx xx *
5F 25	Application Effective Date	
5F 28	Issuer Country Code	01 24 - CAN
5F 2D	Language Preference	65 6E 66 72 - 'enfr' (English, French)
5F 30	Service Code	
5F 34 82	Application PAN Sequence Number	18 00
02	Application Interchange Profile	BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 45 02 9F 4C 08 9F 34 03
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 03 1F 03
94	Application File Locator (AFL)	08 01 03 00
9F 07	Application Usage Control	BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2:
		b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	
9F 08 9F 0D	Application Version Number Issuer Action Code - Default	b7 - International cashback NOT allowed
		b7 - International cashback NOT allowed 00 02

Tag Data Card v4.x Element name 9F 10 Issuer Application Data [InteracFlash] xx xx 85 xx xx xx xx xx xx xx xx xx **xx xx xx xx xx xx xx xx xx *** 9F 13 Last Online Application Transaction xx xx * Counter (ATC) Register 09 9F 17 Personal Identification Number (PIN) Try Counter 9F 26 Application Cryptogram (AC) xx xx xx xx xx xx xx ** 80 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) xx xx * 9F 38 9F 59 03 9F 5A 01 9F 02 06 9F 1A 02 Processing Options Data Object List 5F 2A 02 9F 37 04 9F 58 01 (PDOL) 9F 42 **Application Currency Code** 01 24 - CAD 02 9F 44 **Application Currency Exponent** 9F 4D 0B 0A Transaction Log Entry 9F 4F **Transaction Log Format** 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 8A 02 00 00 00 00 50 01 99 99 99 99 99 99 9F 52 Merchant Type Indicator Limits 01 9F 54 Merchant Type Indicator Limits 02 00 00 00 00 50 01 99 99 99 99 99 9F 55 Merchant Type Indicator Limits 03 00 00 00 00 50 01 99 99 99 99 99 99 00 00 00 00 50 01 99 99 99 99 99 99 9F 56 Merchant Type Indicator Limits 04 Merchant Type Indicator Limits 05 00 00 00 00 50 01 99 99 99 99 99 99 9F 57 00 01 9F 62 Card Product Code [InteracFlash] xx xx xx * 9F 63 Card Transaction Information [InteracFlash] 00 Form Factor Indicator [InteracFlash] 9F 70

4.16 Test Card 16 - Interac, CO, 1-AID (Interac), English, CAN, CAD

A contact-only, 1-AID(Interac) Interac (Canadian) debit card with an Issuer Country Code of 'Canada' and Currency Code of 'CAD'.

The recommended transaction amount to generate a host approval is \$30.00.

4.16.1 Contact: CVM List - Interac, AID A0000002771010

Cardholder Verification Method List ('4103 0203')						
CVM	I Verification Method Conditions If unsucces					
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM			
2	Online PIN	Terminal supports CVM type	Fail			

4.16.2 Contact: Application Tag data, AID A0000002771010

Tag	Element name	Data Card v4.x							
50	Application Label	49 4E 54 45 52 41 43 - 'INTERAC'							
57	Track 2 Equivalent Data	45 06 44 50 06 93 19 33 D2 21 22 20							
	·	01 62 90 74 00 00 1F							
5A	Application Primary Account Number	45 06 44 50 06 93 19 33							
	(PAN)								
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65							
		73 74 20 43 61 72 64 20 31 36 20 20							
		20 20 - 'USA DEBIT/Test Card 16'							
5F 24	Application Expiration Date	22 12 31							
5F 25	Application Effective Date	xx xx xx *							
5F 28	Issuer Country Code	01 24 - CAN							

^{*} Tag value changes with card usage

Tag	Element name	Data Card v	4.x				
5F 2D	Language Preference	65 6E - 'en' (English)					
5F 30	Service Code	02 20					
5F 34	Application PAN Sequence Number	01					
82	Application Interchange Profile	1C 00					
02	Application interestange Freshe	BYTE 1:					
		b7 - Offline SDA NOT supported					
		b6 - Offline DDA NOT supported					
		b5 - Cardholder verification supported					
		b4 - Terminal risk mgmt to be performed					
		b3 - Issuer authentication NOT supported					
		b1 - Combined DDA / GEN AC NOT supported					
		BYTE 2:					
		b8 - EMV Contactless NOT supported					
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10					
87	Application Priority Indicator	01					
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 2A 02 9A 03 9C 01 9F 37 04	5F				
	1 (CDOL1)						
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					
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 41 03 02	03				
	List						
8F	Certification Authority Public Key Index	55					
90	Issuer Public Key Certificate		30				
	-	EC F5 14 C4 F4 F1 F0 89 85 8A 46					
		6F 12 F2 80 B6 81 FD CA 40 8C 09					
		C0 D6 BA 64 FD 05 C7 2C 5A 23 B2					
		DA 11 D6 75 BA B2 AC 74 C5 AF E0 A6 94 2D 84 FC 19 0D C0 6D 83 CF					
		71 F2 F9 74 B8 31 73 5A A1 30 39					
		12 DC CF D5 74 61 D1 20 E5 58 F6					
		12 F6 DB 82 46 DD 41 00 9F A1 D9					
		1B 27 42 F9 7E FD 2B C1 16 DF B9					
		7A 96 6A CF 12 83 A8 49 A7 A9 73	6A				
		OD 8A E2 63 98 36 BC A6 9B D9 EE	78				
92	Issuer Public Key Remainder	EC A4 19 2A 02 CA AC 0B 75 22 44	EC				
	·	AE 9F 1A BA 46 15 E7 05 27 AD D0					
		03 67 54 CA 9F A5 2E 7D 42 16 22					
93	Signed Static Application Data	8E 85 10 B3 4A D5 75 23 55 88 FA	-				
		FA 27 F7 47 AC 0C F3 0E 61 71 55					
		E6 DD D8 53 13 A1 99 C7 A6 77 7A					
		BE CF 20 18 14 99 AB 7A 9A 2E A3 F0 B0 94 0C 03 34 0B AB 91 CC 6E					
		52 44 93 D4 CD 22 0B 62 36 27 64					
		23 03 B0 03 8A C5 E5 5B 80 D1 B4					
		01 68 4F 43 AB EC A9 03 77 48 6C					
		CE 1D 5E 83 73 90 1C E1 6C 5F 9C					
		C5 44 53 67 94 3F 8F 03 91 0E 67	C9				
		D4 3E F7 92 D8 35 D2 D2 42 D4 DA					
		C7 6B E1 71 52 05 75 1B 79 F4 51					
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 10 06 06	00				
		B0 01 01 00					

Tag	Element name	Data Card v4.x						
9F 07	Application Usage Control	FF 00						
	11	BYTE 1:						
		b8 - Domestic cash transactions valid						
		b7 - Int'l cash transactions valid						
		b6 - Domestic goods valid						
		b5 - International goods valid						
		b4 - Domestic services valid						
		b3 - International services valid b2 - ATMs valid						
		b1- Terminals other than ATMs valid						
		BYTE 2:						
		b8 - Domestic cashback NOT allowed						
		b7 - International cashback NOT allowed						
9F 08	Application Version Number	00 01						
9F 0D	Issuer Action Code - Default	B0 70 BC 80 00						
9F 0E	Issuer Action Code - Denial	00 00 00 00 00						
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00						
9F 11	Issuer Code Table Index	01						
9F 12	Application Preferred Name	49 6E 74 65 72 61 63 - 'Interac'						
9F 13	Last Online Application Transaction	xx xx *						
	Counter (ATC) Register							
9F 17	Personal Identification Number (PIN)	09						
	Try Counter							
9F 1F	Track 1 Discretionary Data	31 36 32 39 30 37 34 30 30 30 30 31						
	-	30 30 30 30 30 30 30 30 30 30 30						
9F 32	Issuer Public Key Exponent	03						
9F 36	Application Transaction Counter (ATC)	xx xx *						
9F 38	Processing Options Data Object List (PDOL)	9F 02 06 9F 1A 02						
9F 44	Application Currency Exponent	02						
9F 46	ICC Public Key Certificate	31 AE EC E5 72 75 2D 6E E7 D7 BA E1						
		5A BO 59 7D 71 EE 6D CO EB 1A F2 54						
		C1 FC 53 00 B3 4F 7F A6 1C 32 B2 1B						
		54 1D E4 9F 84 D4 8F B8 9A BF 91 57 FE 51 E9 F1 3D 82 EC 26 5D D6 5E 6C						
		4D B8 A5 CF 71 C8 3F 36 07 48 91 A2						
		86 76 0A F7 51 8A ED 89 83 33 A4 5E						
		A3 08 D6 25 DD 65 0C 45 52 69 FC 1C						
		20 B6 AE 5E 4C 26 A9 4F A9 37 5F 8D						
		2A FD B0 4C 23 C1 0F 1C FC 42 A5 E4						
		F2 9A 1C DA 94 67 F3 38 F0 E1 0C 48						
05.47	IOO D LEVICE TO A	47 46 BD BB 57 2B 21 4C 11 25 26 D3						
9F 47	ICC Public Key Exponent	03						
9F 48	ICC Public Key Remainder	C7 FC 17 8E 7A 76 F6 F4 17 BC 8F E6 E9 9F 89 15 DE 93 B5 E5 ED 38 EF EC						
		5F 69						
9F 49	Dynamic Data Authentication Data	9F 37 04						
01 40	Object List (DDOL)							
9F 4A	Static Data Authentication Tag List	82						
O1 771	- States Bata / tatrioritioation Tag List							

^{*} Tag value changes with card usage

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	0000010	02	STX	46	00101110	2E		90	01011010	5A	Z
03	00000011	03	ETX	47	00101111	2F	1	91	01011011	5B	Γ
04	00000100	04	EOT	48	00110000	30	0	92	01011100	5C	Ĭ
05	00000101	05	ENQ	49	00110001	31	1	93	01011101	5D]
06	00000110	06	ACK	50	00110010	32	2	94	01011110	5E	۸
07	00000111	07	BEL	51	00110011	33	3	95	01011111	5F	_
80	00001000	80	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	3A	:	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	ı
21	00010101	15	NAK	65	01000001	41	Α	109	01101101	6D	m
22	00010110	16	SYM	66	01000010	42	В	110	01101110	6E	n
23	00010111	17	ETB	67	01000011	43	С	111	01101111	6F	0
24	00011000	18	CAN	68	01000100	44	D	112	01110000	70	р
25	00011001	19	EM	69	01000101	45	<u>E</u>	113	01110001	71	q
26	00011010	1A	SUB	70	01000110	46	F	114	01110010	72	r
27	00011011	1B	ESC	71	01000111	47	G H	115	01110011	73	S
28 29	00011100	1C 1D	FS GS	72 73	01001000	48 49	<u>п</u>	116 117	01110100	74 75	t
30	00011101	1E	RS	74	01001001	49 4A	J	118	01110101	76	u v
31	00011110	1F	US	75	01001010	4A 4B	K	119	01110111	77	W
32	00100000	20	SP	76	01001011	4C	L	120	01111000	78	X
33	00100000	21	!	77	01001100	4D	M	121	01111000	79	y
34	00100001	22	"	78	01001101	4E	N	122	01111010	7A	z
35	00100011	23	#	79	01001111	4F	0	123	01111011	7B	- {
36	00100111	24	\$	80	01010000	50	P	124	01111100	7C	ì
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				