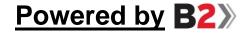


USA Debit EMV™ Test Plan

Version 9.00

March 2022



To view this document online, scan QR Code below.



Disclaimer

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

Copyright

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

Attributions

EMV™ is a trademark owned by EMVCo LLC.

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











B2 Contact Information

www.b2ps.com

Canada

251 Consumers Road, Suite 1200, Toronto, ON M2J 4R3

Tel: 416.730.9827

U.S.A.

1615 S. Congress Avenue, Suite 103, Delray Beach, FL 33445

Tel: 470.233.7374

Revision History

| Version | Date | Revisions | | |
|---------|--------------------|---|--|--|
| 1.00 | December 09, 2017 | Initial document release | | |
| 1.10 | December 14, 2017 | Recommended transaction \$value updated for cards 13, 15, 16 | | |
| 1.20 | May 30, 2018 | Renumbered Test Cases: CD.MMCL.C03-T01 corrected to CD.MCCL.C03-T01 CD.MMCL.C03-T02 became CD.MCCL.C03-T03 Updated Test Cases: CD.MCCL.C03-T01 CD.MCCL.C08-T01 CD.MCCL.C11-T01 CD.MCCL.C11-T03 New Test Cases: CD.MCCL.C03-T02 | | |
| 1.30 | June 1, 2018 | Removed Test Cases: CD.MCCL.C08-T03 CD.MCCL.C12-T04 Renumbered Test cases: CD.MCCL.C08-T04 became CD.MCCL.C08-T03 Updated Test Cases: CD.MCCL.C08-T02 CD.MCCL.C08-T02 CD.MCCL.C08-T03 CD.MCCL.C09-T01 Card version numbers (profile table, Tag data) updated to match physical card version - all are currently v4.0. | | |
| 2.00 | August 20, 2018 | Tags 82, 9F07, 9F69: interpretation of bit values addedTC03: updated to v5.0 - Tag 57 modified | | |
| 3.00 | September 27, 2018 | Tag 82 (AIP) updated on non-Visa cards Discover cards (TC12, TC13) - Expiry date changed to 23/12 DNA Card (TC14) - Expiry date changed to 25/12 | | |
| 3.10 | December 13, 2018 | TC03: documentation updated to reflect Dual-Funding | | |
| 4.00 | March 11, 2019 | TC03: updated to v6.0 - Discretionary data modified | | |
| 4.01 | June 7, 2019 | Card set on which tests are based renamed to "USA Debit EMV Test Card Set". No change to cards themselves. | | |
| 5.00 | June 21, 2019 | TC16: updated to v5.0 - Language indicator modified | | |
| 6.00 | July 7, 2020 | TC10: Support for new physical cardstock added. No discernible change to EMV tags | | |

| Version | Date | Revisions | | | |
|---------|-------------------|--|--|--|--|
| 6.10 | February 18, 2021 | TC15: MTI (Contactless) tags 9F52, 9F54, 9F55, 9F56, 9F57 revealed. | | | |
| 7.00 | March 23, 2021 | TC05-TC11: (Mastercard/Maestro) change Expiry Date to 25/12 | | | |
| 8.00 | December 14, 2021 | TC01-TC04: card expiry date updated TC01, TC05: PAR (Tag 9F 24) added TC15: replaced with updated DI card (Interac Flash BIN '00') TC16: Interac card replaced with Mastercard Credit/Debit/U.S. Maestro card | | | |
| 9.00 | March 18, 2022 | TC15: new BIN, PAN, DES keys | | | |
| | | | | | |

Table of Contents

| Chapter | 1 - Ove | erview | | . 7 |
|---------|----------|----------------------|---|-----|
| 1.1 | USA De | bit EMV Tes | st Plan - Purpose | 7 |
| 1.2 | Target A | Audience | | 7 |
| 1.3 | System | Requireme | nts | 7 |
| Chanter | • | • | g U.S. Debit | |
| 2.1 | _ | - | t Scenarios | |
| | | | | |
| 2.2 | | | on for U.S. Debit with Cardholder Verification Handling | |
| 2.3 | | _ | chants: | |
| 2.4 | Credit/E | Debit Promp | ting Merchants: | 12 |
| 2.5 | Final Se | election Pro | cessing | 13 |
| 2.6 | U.S. De | bit Processi | ng Flowchart PIN Preferring Merchants | 15 |
| 2.7 | U.S. De | bit Processi | ng Flowchart - Credit/Debit Prompting Merchants | 16 |
| Chapter | 3 - USA | A Debit EN | MV Test Plan | 17 |
| 3.1 | | | | |
| 3.2 | | | le Test Cases | |
| | | • | | |
| 3.3 | 3.3.1 | | ot Cases | |
| | 3.3.1 | | Janu Tille | |
| | 3.3.3 | | | |
| | 3.3.4 | • | tes | |
| | 3.3.5 | Steps | | 19 |
| | 3.3.6 | Pass Criteria | 3 | 20 |
| | 3.3.7 | | | |
| | 3.3.8 | • | st of AIDs used in USA Debit EMV Test Card Set | |
| | 3.3.9 | | ng, Merchant Controlled Candidate List – Test Cases | |
| | | 3.3.9.1 3.3.9.2 | PP.MCCL.C01-T01 | |
| | | 3.3.9.3 | PP.MCCL.C01-T03 | |
| | | 3.3.9.4 | PP.MCCL.C01-T04 | _ |
| | | 3.3.9.5 | PP.MCCL.C02-T01 | |
| | | 3.3.9.6 3.3.9.7 | PP.MCCL.C02-T02 | |
| | | 3.3.9.8 | PP.MCCL.C03-T01 | |
| | | 3.3.9.9 | PP.MCCL.C03-T03 | |
| | | 3.3.9.10 | PP.MCCL.C04-T01 | |
| | | 3.3.9.11 | PP.MCCL.C05-T01 | |
| | | 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 | 37 |
| | | 3.3.9.16 | PP.MCCL.C06-T02 | |
| | | 3.3.9.17 3.3.9.18 | PP.MCCL.C07-T01 | |
| | | 3.3.9.18 | PP.MCCL.C07-T02 PP.MCCL.C07-T03 | |
| | | 3.3.9.20 | PP.MCCL.C08-T01 | |
| | | 3.3.9.21 | PP.MCCL.C08-T02 | |
| | | 3.3.9.22 | PP.MCCL.C08-T03 | |
| | | 3.3.9.23 3.3.9.24 | PP.MCCL.C08-T04 PP.MCCL.C09-T01 | |
| | | 3.3.9.25 | PP.MCCL.C09-T01 | |

| | 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 3.3.9.37 | PP.MCCL.C12-T03 PP.MCCL.C12-T04 | |
| | 3.3.9.38 | PP.MCCL.C13-T01 | |
| | 3.3.9.39 | PP.MCCL.C13-T02 | |
| | 3.3.9.40 | PP.MCCL.C14-T01 | |
| | 3.3.9.41 | PP.MCCL.C15-T01 | |
| | 3.3.9.42 | PP.MCCL.C16-T01 | |
| 2 2 40 | | ng, Standard EMV Application Selection – Test Cases | |
| 3.3.10 | | | |
| | 3.3.10.1 | PP.SEAS.C01-T01 | . 65 |
| | 3.3.10.2 | PP.SEAS.C01-T02 | |
| | 3.3.10.3 | PP.SEAS.C01-T03 | |
| | 3.3.10.4 | PP.SEAS.C01-T04 | |
| | 3.3.10.5 | PP.SEAS.C01-T05 | |
| | 3.3.10.6 | PP.SEAS.C02-T01 | |
| | 3.3.10.7 | PP.SEAS.C02-T02 | |
| | 3.3.10.8 | PP.SEAS.C03-T01 | |
| | 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 3.3.10.14 | PP.SEAS.C05-101 | |
| | 3.3.10.14 | PP.SEAS.C05-T03 | |
| | 3.3.10.15 | PP.SEAS.C05-T04 | |
| | 3.3.10.17 | PP.SEAS.C05-T05 | |
| | 3.3.10.18 | PP.SEAS.C06-T01 | |
| | 3.3.10.19 | PP.SEAS.C06-T02 | |
| | 3.3.10.20 | PP.SEAS.C07-T01 | |
| | 3.3.10.21 | PP.SEAS.C07-T02 | |
| | 3.3.10.22 | 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 | . 90 |
| | 3.3.10.27 | PP.SEAS.C09-T01 | .91 |
| | 3.3.10.28 | PP.SEAS.C09-T02 | . 92 |
| | 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 | |
| | 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 3.3.10.44 | PP.SEAS.C12-1031 | - |
| | 3.3.10.44 | PP.SEAS.C12-104 | |
| | 3.3.10.45 | PP.SEAS.C12-T06 | |
| | | | 1 1 U 1 1 1 |

| | 3.3.10.48 | PP.SEAS.C13-T02 | 110 |
|--------|--------------|--|-----|
| | 3.3.10.49 | PP.SEAS.C14-T01 | |
| | | | |
| | 3.3.10.50 | PP.SEAS.C15-T01 | |
| | 3.3.10.51 | PP.SEAS.C16-T01 | |
| 3.3.11 | Credit/Debit | Prompting, Merchant Controlled Candidate List – Test Cases | 116 |
| | 3.3.11.1 | CD.MCCL.C01-T01 | 116 |
| | 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 | 125 |
| | 3.3.11.11 | CD.MCCL.C05-T01 | 126 |
| | 3.3.11.12 | CD.MCCL.C05-T02 | 127 |
| | 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 | |
| | 3.3.11.17 | CD.MCCL.C07-T01 | |
| | | | |
| | 3.3.11.18 | CD.MCCL.C07-T02 | |
| | 3.3.11.19 | CD.MCCL.C07-T03 | |
| | 3.3.11.20 | CD.MCCL.C08-T01 | |
| | 3.3.11.21 | CD.MCCL.C08-T02 | |
| | 3.3.11.22 | CD.MCCL.C08-T03 | |
| | 3.3.11.23 | CD.MCCL.C09-T01 | 138 |
| | 3.3.11.24 | CD.MCCL.C09-T02 | 139 |
| | 3.3.11.25 | CD.MCCL.C10-T01 | 140 |
| | 3.3.11.26 | CD.MCCL.C10-T02 | |
| | 3.3.11.27 | CD.MCCL.C11-T01 | |
| | 3.3.11.28 | CD.MCCL.C11-T02 | |
| | 3.3.11.29 | CD.MCCL.C11-T03 | |
| | 3.3.11.30 | CD.MCCL.C11-T04 | |
| | 3.3.11.31 | CD.MCCL.C12-T01 | |
| | | CD.MCCL.C12-T01 | |
| | 3.3.11.32 | | |
| | 3.3.11.33 | CD.MCCL.C13-T01 | |
| | 3.3.11.34 | CD.MCCL.C13-T02 | |
| | 3.3.11.35 | CD.MCCL.C14-T01 | |
| | 3.3.11.36 | CD.MCCL.C15-T01 | |
| | 3.3.11.37 | CD.MCCL.C16-T01 | 152 |
| 3 3 12 | Credit/Debit | Selection, Standard EMV Application Selection – Test Cases | 153 |
| 0.0.12 | | | |
| | 3.3.12.1 | CD.SEAS.C01-T01 | |
| | 3.3.12.2 | CD.SEAS.C01-T02 | |
| | 3.3.12.3 | CD.SEAS.C01-T03 | |
| | 3.3.12.4 | CD.SEAS.C01-T04 | |
| | 3.3.12.5 | CD.SEAS.C02-T01 | |
| | 3.3.12.6 | CD.SEAS.C02-T02 | 158 |
| | 3.3.12.7 | CD.SEAS.C03-T01 | 159 |
| | 3.3.12.8 | CD.SEAS.C03-T02 | 160 |
| | 3.3.12.9 | CD.SEAS.C03-T03 | |
| | 3.3.12.10 | CD.SEAS.C04-T01 | |
| | 3.3.12.11 | CD.SEAS.C05-T01 | _ |
| | 3.3.12.12 | CD.SEAS.C05-T02 | |
| | 3.3.12.12 | CD.SEAS.C05-T03 | |
| | | CD.SEAS.C05-T03 | |
| | 3.3.12.14 | | |
| | 3.3.12.15 | CD.SEAS.C06-T01 | |
| | 3.3.12.16 | CD.SEAS.C06-T02 | |
| | 3.3.12.17 | CD.SEAS.C07-T01 | |
| | 3.3.12.18 | CD.SEAS.C07-T02 | |
| | 3.3.12.19 | CD.SEAS.C07-T03 | |
| | 3.3.12.20 | CD.SEAS.C08-T01 | |
| | 3.3.12.21 | CD.SEAS.C08-T02 | |
| | 0 0 40 00 | CD SEAS C08-T03 | 174 |

| | | 3.3.12.23 CD.SEAS.C08-T04 | 175 |
|-----|-----------|--|-----|
| | | 3.3.12.24 CD.SEAS.C09-T01 | |
| | | 3.3.12.25 CD.SEAS.C09-T02 | |
| | | 3.3.12.27 CD.SEAS.C10-T01 | |
| | | 3.3.12.28 CD.SEAS.C10-T02 | |
| | | 3.3.12.29 CD.SEAS.C11-T01 | _ |
| | | 3.3.12.30 CD.SEAS.C11-T02 | |
| | | 3.3.12.31 CD.SEAS.C11-T03 | |
| | | 3.3.12.33 CD.SEAS.C11-T05 | |
| | | 3.3.12.34 CD.SEAS.C11-T06 | |
| | | 3.3.12.35 CD.SEAS.C11-T07 | _ |
| | | 3.3.12.37 CD.SEAS.C12-101 | |
| | | 3.3.12.38 CD.SEAS.C12-T03 | 190 |
| | | 3.3.12.39 CD.SEAS.C12-T04 | _ |
| | | 3.3.12.40 CD.SEAS.C12-T05 | _ |
| | | 3.3.12.42 CD.SEAS.C13-T02 | |
| | | 3.3.12.43 CD.SEAS.C14-T01 | |
| | | 3.3.12.44 CD.SEAS.C15-T01 | |
| Ob | . 4 . 116 | 3.3.12.45 CD.SEAS.C16-T01 | |
| 4.1 | | SA Debit EMV Test Card Set Profiles | |
| 4.1 | 4.1.1 | ard 01 - Visa, DI, 2-AID (Visa Debit+US Debit), English, USA, USD Contact: CVM List - Visa Debit, AID A000000031010 | |
| | 4.1.2 | Contact: Application Tag data, AID A0000000031010 | |
| | 4.1.3 | Contact: CVM List - U.S. Debit, AID A000000980840 | |
| | 4.1.4 | Contact: Application Tag data, AID A000000980840 | |
| | 4.1.5 | CTLS: Application Tag data, AID A000000031010, (qVSDC, online, ODA) | |
| | 4.1.6 | CTLS: Application Tag data, AID A0000000980840, (qVSDC, offline) | |
| 4.2 | | ard 02 - Visa, CO, 1-AID (US Debit), English, USA, USD | |
| 4.2 | 4.2.1 | Contact: CVM List - US Debit, AID - A0000000980840 | |
| | 4.2.2 | Contact: Application Tag data, AID A000000980840 | |
| 4.3 | | ard 03 - Visa, CO, 3-AID (Credit+Debit+US Common, 2-Funding), English, U | |
| | | USD | 213 |
| | 4.3.1 | Contact: CVM List - Visa Credit, AID - A00000003101001 | |
| | 4.3.2 | Contact: Application Tag data, AID A00000003101001 | |
| | 4.3.3 | Contact: CVM List - Visa Debit, AID A00000003101002 | |
| | 4.3.4 | Contact: Application Tag data, AID A00000003101002 | |
| | 4.3.5 | Contact: CVM List - U.S. Common Debit, AID A0000000980840 | 217 |
| | 4.3.6 | Contact: Application Tag data, AID A000000980840 | 217 |
| 4.4 | Test C | ard 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 | |
| 4.5 | Test C | ard 05 - Mastercard, DI, 2-AID (Mastercard Debit+US Debit), English, USA, | |
| | 4.5.1 | Contact: CVM List - Mastercard debit, AID A000000041010 | |
| | 4.5.2 | Contact: Application Tag data, AID A000000041010 | 222 |
| | 4.5.3 | Contact: CVM List - U.S. Maestro, AID A000000042203 | 225 |
| | 4.5.4 | Contact: Application Tag data, AID A000000042203 | |
| | 4.5.5 | CTLS: CVM List - Mastercard debit, AID A000000041010 (PayPass) | |
| | 4.5.6 | CTLS: Application Tag data, AID A000000041010 (PayPass) | |
| | 4.5.7 | CTLS: CVM List - U.S. Maestro, AID A000000042203 (PayPass) | 23′ |
| | 158 | CTLS: Application Tag data AID A000000042203 (PayPage) | 234 |

| 4.6 | Test Ca | ard 06 - Maestro, CO, 1-AID (2-Funding), English, NLD, EUR | 234 |
|--------------|---|---|---|
| | 4.6.1 | Contact: CVM List - Maestro Debit, AID A000000043060D0561111 | 234 |
| | 4.6.2 | Contact: Application Tag data, AID A000000043060D0561111 | 234 |
| | 4.6.3 | Contact: CVM List - Maestro Debit, AID A000000043060D0562222 | 237 |
| | 4.6.4 | Contact: Application Tag data, AID A000000043060D0562222 | 238 |
| 4.7 | Test Ca | ard 07 - Mastercard Int'l, CO, 2-AID (Credit+Debit), English, GBR, GBP | 241 |
| | 4.7.1 | Contact: CVM List - Mastercard credit, AID A000000041010 | |
| | 4.7.2 | Contact: Application Tag data, AID A000000041010 | 241 |
| | 4.7.3 | Contact: CVM List - Maestro debit, AID A000000043060 | 244 |
| | 4.7.4 | Contact: Application Tag data, AID A000000043060 | 245 |
| 4.8 | Test Ca | ard 08 - U.S. Maestro, CO, 1-AID (2-Funding), English, USA, USD | 248 |
| | 4.8.1 | Contact: CVM List - Mastercard U.S. Checking, AID A0000000042203D0561111 | |
| | 4.8.2 | Contact: Application Tag data, AID A000000042203D0561111 | 248 |
| | 4.8.3 | Contact: CVM List - Mastercard U.S. Savings, AID A0000000042203D0562222 | 251 |
| | 4.8.4 | Contact: Application Tag data, AID A000000042203D0562222 | 252 |
| 4.9 | Test Ca | ard 09 - Mastercard, CO, 3-AID (Credit+Maestro x2), English, USA, USD | 255 |
| | 4.9.1 | Contact: CVM List - Mastercard credit, AID A000000041010 | |
| | 4.9.2 | Contact: Application Tag data, AID A000000041010 | 255 |
| | 4.9.3 | Contact: CVM List - Maestro debit, AID A000000043060 | 258 |
| | 4.9.4 | Contact: Application Tag data, AID A000000043060 | 259 |
| | 4.9.5 | Contact: CVM List - U.S. Maestro, AID A000000042203 | 262 |
| | 4.9.6 | Contact: Application Tag data, AID A000000042203 | 262 |
| 4.10 | Test Ca | ard 10 - Mastercard CO, Contact, 1-AID (US Maestro), English, USA, USD | 265 |
| | 4.10.1 | Contact: CVM List - U.S. Maestro, AID A000000043060 | 265 |
| | 4.10.2 | Contact: Application Tag data, AID A000000043060 | 265 |
| 4.11 | Test Ca | ard 11 - Mastercard, CO, 4-AID (MC+USM/Maestro+USM), English, USA, USD | 268 |
| | 4.11.1 | Contact: CVM List - Mastercard debit, AID A000000041010 | 268 |
| | 4.11.2 | Contact: Application Tag data, AID A000000041010 | 268 |
| | 4.11.3 | Contact: CVM List - U.S. checking, AID A00000004220301 | 271 |
| | 4.11.4 | Contact: Application Tag data, AID A00000004220301 | 272 |
| | 4.11.5 | Contact: CVM List - Maestro debit, AID A000000043060 | 275 |
| | 4.11.6 | Contact: Application Tag data, AID A000000043060 | 275 |
| | | * * | |
| | 4.11.7 | Contact: CVM List - U.S. Savings debit, AID A00000004220302 | |
| | 4.11.7 4.11.8 | * * | 278 |
| 4.12 | 4.11.8 | Contact: CVM List - U.S. Savings debit, AID A00000004220302 | 278 278 |
| 4.12 | 4.11.8 | Contact: CVM List - U.S. Savings debit, AID A000000004220302 Contact: Application Tag data, AID A00000004220302 | 278 278 282 |
| 4.12 | 4.11.8 Test C a | Contact: CVM List - U.S. Savings debit, AID A000000004220302 Contact: Application Tag data, AID A000000004220302 | 278 278 282 282 |
| 4.12 | 4.11.8 Test Ca 4.12.1 | Contact: CVM List - U.S. Savings debit, AID A000000004220302 Contact: Application Tag data, AID A000000004220302 | 278 278 282 282 |
| 4.12 | 4.11.8 Test Ca 4.12.1 4.12.2 | Contact: CVM List - U.S. Savings debit, AID A000000004220302 | 278 278 282 282 284 |
| 4.12 | 4.11.8 Test Ca 4.12.1 4.12.2 4.12.3 | Contact: CVM List - U.S. Savings debit, AID A000000004220302 | 278 278 282 282 284 284 |
| 4.12 | 4.11.8 Test Ca 4.12.1 4.12.2 4.12.3 4.12.4 | Contact: CVM List - U.S. Savings debit, AID A000000004220302 | 278 278 282 282 284 284 286 |
| 4.12 | 4.11.8 Test Ca 4.12.1 4.12.2 4.12.3 4.12.4 4.12.5 | Contact: CVM List - U.S. Savings debit, AID A000000004220302 | 278 278 282 282 284 284 286 |
| 4.12 4.13 | 4.11.8 Test Ca 4.12.1 4.12.2 4.12.3 4.12.4 4.12.5 4.12.6 4.12.7 | Contact: CVM List - U.S. Savings debit, AID A000000004220302 | 278 278 282 282 284 284 286 286 |
| | 4.11.8 Test Ca 4.12.1 4.12.2 4.12.3 4.12.4 4.12.5 4.12.6 4.12.7 | Contact: CVM List - U.S. Savings debit, AID A000000004220302 | 278 278 282 282 284 284 286 286 288 |
| | 4.11.8 Test Ca 4.12.1 4.12.2 4.12.3 4.12.4 4.12.5 4.12.6 4.12.7 Test Ca | Contact: CVM List - U.S. Savings debit, AID A000000004220302 | 278 278 282 282 284 284 286 286 288 290 |
| | 4.11.8 Test Ca 4.12.1 4.12.2 4.12.3 4.12.4 4.12.5 4.12.6 4.12.7 Test Ca 4.13.1 4.13.2 | Contact: CVM List - U.S. Savings debit, AID A000000004220302 | 278 278 282 282 284 286 288 290 290 |
| 4.13 | 4.11.8 Test Ca 4.12.1 4.12.2 4.12.3 4.12.4 4.12.5 4.12.6 4.12.7 Test Ca 4.13.1 4.13.2 | Contact: CVM List - U.S. Savings debit, AID A000000004220302 | 278 278 282 282 284 286 286 288 290 290 290 |



| 4.15 | Test Ca | ard 15 - Interac, DI, 1-AID (Interac), English, CAN, CAD | 294 |
|--------|----------|--|-----|
| | 4.15.1 | Contact: CVM List - Interac, AID A000002771010 | 294 |
| | 4.15.2 | Contact: Application Tag data, AID A000002771010 | 294 |
| | 4.15.3 | CTLS: Application Tag data, AID A0000002771010 (Flash) | 296 |
| 4.16 | Test Ca | ard 16 - Mastercard, CO, 3-AID, English, USA, USD | 298 |
| | 4.16.1 | Contact: CVM List - Mastercard, AID A00000004101001 | 298 |
| | 4.16.2 | Contact: Application Tag data, AID A00000004101001 | 299 |
| | 4.16.3 | Contact: CVM List - Mastercard, AID A00000004101002 | 302 |
| | 4.16.4 | Contact: Application Tag data, AID A00000004101002 | 302 |
| | 4.16.5 | Contact: CVM List - Mastercard, AID A000000042203 | 305 |
| | 4.16.6 | Contact: Application Tag data, AID A000000042203 | 305 |
| Chapte | r 5 - AS | CII Character Conversion Chart | 309 |

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 A00000015240 | | |
| 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. Common Debit Scenarios | | | | | |
|-----------------------------|--|-----------------------------|---|---|--|
| Scenario | AID | Country Code Tag 5F55 | IIN Tag 42 | Candidate List Choice for the Merchant | |
| One | Card | | le debit funding | | |
| One | | USA Debit To | est Cards 01, 05 | ,12 | |
| Global Debit AID | TC 01 - A000000031010 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 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 01 - A0000000980840 TC 05 - A0000000042203 TC 12 - A0000000154010 | US | TC 01 - 476173 TC 05 - 541333 TC 12 - 651000 | | |
| 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 - A0000000043060 | US | 5413333 | Merchant should choose either the 2 Global AIDs or the 2 | |
| U.S. Common Debit AID 1 | TC 11 - A000000004220301 | US | 541333 | U.S. Common Debit AIDs based on their preferred routing choice: Global AIDs — may only be routed to 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"

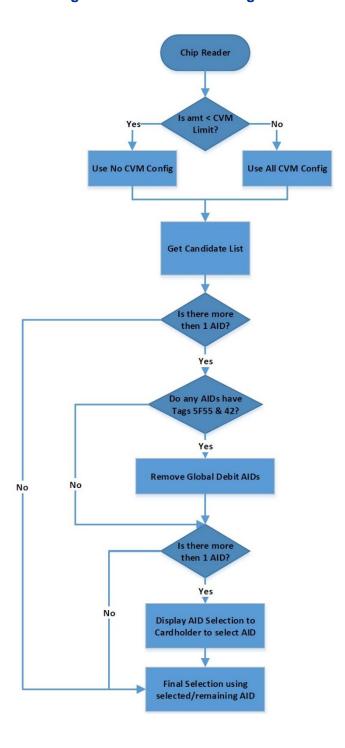
Set the Processing Code:

- 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

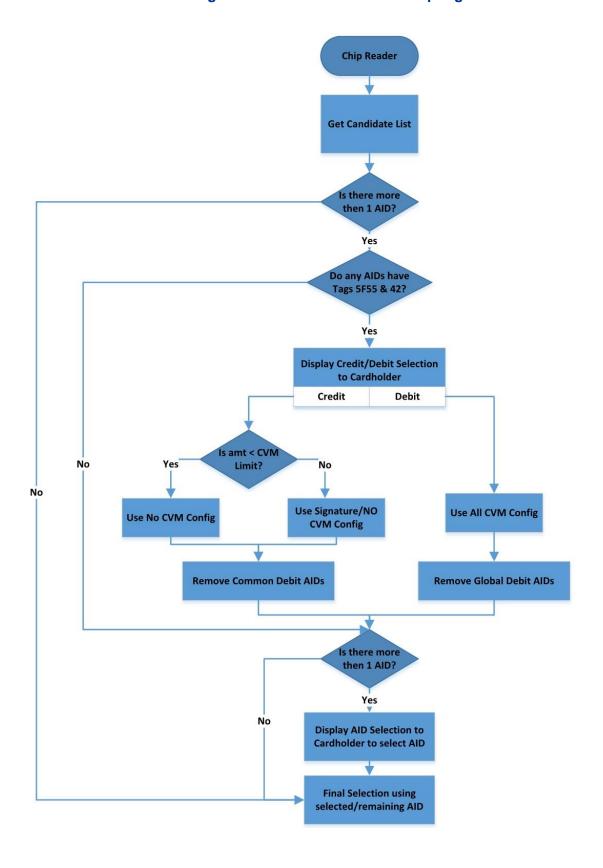
The kernel can now select the AID on the chip and Final Selection ends.

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:

- As of Version 8.00 of this document, Test Card 15 v4.0 was replaced with v5.0 and Test Card 16 v5.0 was replaced with v6.0. There are significant changes to these two cards.
 - TC 16 test cases have NOT been updated to reflect the changes. When that occurs, this notification will be removed.
- When the application prompts for Cashback, outcomes (Approval / Declined) may differ from one terminal configuration or host to another. It is advised that, if possible, Cashback be disabled.
- As of Version 6.0 of Test Card 15, this Interac Flash card has a BIN range of '001203'. These cards are supported by all Canadian processors but are not necessarily supported by all U.S. and International processors. Check with your acquirer account representative to determine if the Interac Flash BIN '001203' range is supported by their development host. If your processor does not yet support Interac Flash, the card will function properly at the POS but it will not obtain a host approval.



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

DD.AAAA.Cxx-Tyy, where:

- **DD** is:
 - PP PIN Preferring
 - CD Credit/Debit
- AAAA is:
 - MCCL Merchant Controlled Candidate List)
 - SEAS Standard EMV Application Selection
- Cxx is:
 - The 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:

- 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:

- 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:

- 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 | |
| 03 | Credit | Debit | Debit | |
| 03 | Visa Credit | Visa Debit | US Debit | |
| | 4761739001010176 | 4761739001010135 | 4761739001010135 | |
| | A000000033010 | | | |
| 0.4 | Debit | | | |
| 04 | Interlink | | | |
| | 4761731000000084 | | | |
| | A0000000041010 | A0000000042203 | | |
| 0.5 | Debit | Debit | | |
| 05 | Mastercard Debit | US Maestro | | |
| | 5413330089099130 | 5413330089099130 | | |
| | A0000000043060 | A000000043060 | | |
| | D0561111 | D0562222 | | |
| 06 | Debit | Debit | | |
| | Maestro1 | Maestro2 | | |
| | 67999989000002010 | 67999989000002028 | | |
| | A0000000041010 | A000000043060 | | |
| 07 | Credit | Debit | | |
| 07 | Mastercard | Maestro | | |
| | 5413330089020060 | 6799998900000200051 | | |
| | A0000000042203 | A0000000042203 | | |
| | D0561111 | D0562222 | | |
| 80 | Debit | Debit | | |
| | US Checking | US Savings | | |
| | 5413330089099007 | 5413330089099015 | | |
| | A0000000041010 | A0000000043060 | A0000000042203 | |
| 09 | Credit | Debit | Debit | |
| 09 | Mastercard | Maestro | US Maestro | |
| | 5413330089020060 | 6799998900000200051 | 6799998900000200051 | |
| | A0000000042203 | | | |
| 10 | Debit | | | |
| 10 | US Maestro | | | |
| | 5413330089099130 | | | |
| | A0000000041010 | A000000004220301 | A000000043060 | A000000004220302 |
| 11 | 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 | A0000002771010 | | |
| | Debit | Debit | | |
| | Interac | Interac Flash | | |
| | 0012020000001 | 0012020000001 | | |
| 16* | A000000004101001 | A000000004101002 | A000000000042203 | |
| | Credit | Debit | Debit | |
| | Mastercard | Mastercard | US Maestro | |
| | 5413330089020060 | 5413330089099130 | 5413330089099130 | |

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 <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:

3.3.9.2 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 not 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 <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:

3.3.9.3 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 <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: 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 not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 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 <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. 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. "A0000000980840" AID selected was 'US Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

3.3.9.9 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
- 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:

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

Pass Criteria:

- 1. User is <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:

- 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
- 6. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "No signature required" No CVM was used

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: 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'
- 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:

3.3.9.16 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
- 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'
- 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
- 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
- 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:

3.3.9.22 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
- 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
- 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: 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 <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:

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

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 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 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 10
- 3. Enter PIN ("4315") when prompted

Pass Criteria:

- 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. "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:

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

Pre-Requisites:

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

Steps:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

- 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
- 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:

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

Pass Criteria:

- 1. User is <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

PLEASE READ IMPORTANT NOTES AT THE BEGINING OF SECTION 3.3

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.10 PIN Preferring, Standard EMV Application Selection – Test Cases

3.3.10.1 PP.SEAS.C01-T01

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

Type: Contact

Purpose:

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

- 1. Does <u>not</u> 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:

- 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:

- 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 \$0

Steps:

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

Pass Criteria:

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, 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:

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

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

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:

- 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, A000000980840
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- 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:

- User is not 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
- 2. Prompts the user for Application Selection by displaying 'Mastercard Debit' and 'US Maestro'
- 3. Allows the user to select the 'Mastercard Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, 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
- 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
- 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 not prompt for Application Selection
- 3. Automatically selects the 'Mastercard Debit' application
- 4. Uses Signature as the CVM for the transaction

Pre-Requisites:

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

3.3.10.21 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
- 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:

3.3.10.23 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: A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 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
- 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:

3.3.10.26 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:

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

3.3.10.29 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 <u>not</u> 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 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 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:

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

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 <u>not</u> 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:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 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 <u>not</u> 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'
- 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
- 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
- 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:

3.3.10.42 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
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A0000001524010" AID selected was 'US Debit'
 - c. "0005" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

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 not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "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 not prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Allows the user to bypass PIN entry

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.10.49 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:

- 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
- The 'Interac' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A0000002771010" AID selected was 'Interac'
 - c. "8644" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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

3.3.10.51 PP.SEAS.C16-T01

PLEASE READ IMPORTANT NOTES AT THE BEGINING OF SECTION 3.3

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is 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
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A0000002771010" AID selected was 'Interac'
 - c. "1933" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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

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

3.3.11.1 CD.MCCL.C01-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is 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: A000000980840

Steps:

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

Pass Criteria:

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

- 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 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

Steps:

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

Pass Criteria:

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

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: A000000043060

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- 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
- 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'
- 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:

3.3.11.22 CD.MCCL.C08-T03

CD.MCCL.C08-T03 Credit/Debit Prompting, Merchant Controlled Candidate List Card 08 - Test 03

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- User is able to select 'US Savings'
- 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
- 3. When prompted, select 'Credit'

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard' and 'Maestro'
- 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 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
- 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
- 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:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A00000004220301" AID selected was 'US Checking'
 - c. "0060" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

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:

- 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
- 3. User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A00000004220302" AID selected was 'US Savings'
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

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:

- 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:

- 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
- Prompts the user to enter a PIN

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A0000006200620

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 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. "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:

- 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

PLEASE READ IMPORTANT NOTES AT THE BEGINING OF SECTION 3.3

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Comments:

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

3.3.12 Credit/Debit Selection, Standard EMV Application Selection – Test Cases

3.3.12.1 CD.SEAS.C01-T01

CD.SEAS.C01-T01 Credit/Debit Prompting, Standard EMV Application Selection Card 01 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000031010, 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, A000000980840

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

Pre-Requisites:

- 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 \$0

Steps:

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

Pass Criteria:

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, 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: 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:

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

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:

- 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. 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:

3.3.12.7 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
- 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
- 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
- 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 <u>not</u> prompt for Credit or Debit
- 2. Does <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'Mastercard Debit' application
- 4. Uses Signature as the CVM for the transaction

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, 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:

3.3.12.14 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'
- 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:

3.3.12.17 CD.SEAS.C07-T01

CD.SEAS.C07-T01 Credit/Debit Prompting, Standard EMV Application List Card 07 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060

Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 07
- 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
- 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:

3.3.12.18 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
- 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
- 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: 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 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
- 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
- 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: A000000042203

Steps:

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

Pass Criteria:

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

- 1. 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'
- 4. 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'
- 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:

3.3.12.27 CD.SEAS.C10-T01

CD.SEAS.C10-T01 Credit/Debit Prompting, Standard EMV Application Selection Card 10 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000042203

Steps:

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

Pass Criteria:

- 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. "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: A000000042203

Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 10
- 3. When prompted, select 'Credit'

Pass Criteria:

- 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
- 3. When prompted, select 'Debit'
- 4. Select 'Mastercard Debit' application when prompted
- 5. Enter PIN ("4315") when prompted

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 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')
- 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
- 3. When prompted, select 'Debit'
- 4. Select 'US Checking' application when prompted
- 5. Enter PIN ("4315") when prompted

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- User is able to select 'US Checking'
- 4. 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:

- 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'
- 3. User is able to select 'Maestro'
- 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
- 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:

3.3.12.35 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')
- 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:

- 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 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
- 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
- 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
- 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:

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

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
- 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

PLEASE READ IMPORTANT NOTES AT THE BEGINING OF SECTION 3.3

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

Type: Contact

Purpose:

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

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Does <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 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
- When prompted, select 'Debit'
- 4. Enter PIN ("1234") when prompted

Pass Criteria:

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

Comments:

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

Chapter 4 - USA Debit EMV Test Card Set Profiles

CAUTION

Multiple consecutive incorrect PIN entry attempts may result in the card being blocked.

This is known as being 'PIN Blocked'.

If this occurs, it will no longer be possible to enter an Offline PIN, which will cause all future transactions to be declined.

*** It is not possible to unblock a 'PIN Blocked' card ***

NOTICE

Interac Flash card has a '001203' BIN range. These cards are supported by all Canadian processors but are not yet supported by all U.S. and international processors.

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

RECOMMENDATION

For those that are relatively new to EMV and seek assistance in understanding 'the basics'...

Consider B2's online courses – eLearning and Virtual Training.

Learn from the comfort and convenience of your office (or home-office), at your own pace.

Visit: 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 | A000000003101001 A000000003101002 A0000000980840 |
| PAN on plastic | 4761 7390 0101 0135 | 4761 7390 0101 0135 | 4761 7390 0101 0176 |
| Expiry Date | 12/2024 | 12/2024 | 12/2024 |
| Service Code | 201 | 201 | 201 |
| Interface | Contact, Contactless, MSR | Contact, MSR | Contact, MSR |
| CVM (Contact) Default Condition: Terminal Supports CVM | Online PIN (ATM) Online PIN (MCash) Signature (MCash) Online PIN (CBack) Signature Online PIN See card definition | Online PIN (ATM) Fail CVM Processing (MCash) Online PIN (CBack) Online PIN No CVM required See card definition | Online PIN (ATM) Online PIN (MCash) Signature (MCash) Fail CVM Processing (CBack) Signature No CVM required Fail CVM Processing See card definition |
| Approval Amount | \$10.00 | \$10.00 | \$10.00 |
| Issuer Country Code | 840 - USA | 840 - USA | 840 - USA |
| Application Currency Code | 840 - USD | 840 - USD | 840 - USD |
| Language | 'en' - English | 'en' - English | 'en' - English |
| Card Version | v5.x | v5.x | v7.x |

Test Card 04 Test Card 05 Test Card 06 Brand Visa Mastercard Mastercard **Description (Card + types)** Interlink Global / Common Maestro Dual-Funding A000000043060 A000000041010 D0561111 **AID list** A000000033010 A0000000042203 A000000043060 D05621222 **PAN** on plastic 4761 7310 0000 0084 5413 3300 8909 9130 67999 9890 0000 2010 **Expiry Date** 12/2024 12/2025 12/2025 **Service Code** 221 201 220 Contact, Contactless, Interface Contact, MSR Contact, MSR **MSR** Online PIN (ATM) Online PIN (CBack) Offline Plaintext PIN Online PIN CVM (Contact) Signature Online PIN (CBack) **Default Condition:** No CVM required Online PIN Fail CVM Processing **Terminal Supports CVM** See card definition No CVM required See card definition See card definition **Approval Amount** \$10.00 \$20.00 \$20.00 528 - NLD **Issuer Country Code** 840 - USA 840 - USA **Application Currency Code** 840 - USD 840 - USD 978 - EUR Language 'en' - English 'en' - English 'en' - English **Card Version** v5.x v6.x v5.x

| | Test Card 07 | Test Card 08 | Test Card 09 |
|--|--|---|--|
| Brand | Mastercard | Mastercard | Mastercard |
| Description | Credit / Int'l | U.S. Maestro - Dual- Funding | Credit / Global / U.S. Common |
| AID list | A0000000041010 A00000000043060 | 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 | Contact, MSR | Contact, MSR | Contact, MSR |
| CVM (Contact) Default Condition: Terminal Supports CVM | Offline Plaintext PIN Online PIN Signature No CVM required Fail CVM Processing See card definition | Online PIN (CBack) Online PIN No CVM required Fail CVM Processing See card definition | Offline Plaintext PIN Online PIN Signature No CVM required Fail CVM Processing See card definition |
| Approval Amount | \$20.00 | \$20.00 | \$20.00 |
| Issuer Country Code | 826 - GBR | 840 - USA | 840 - USA |
| Application Currency Code | 826 - GBP | 840 - USD | 840 - USD |
| Language | 'en' - English | 'en' - English | 'en' - English |
| Card Version | v5.x | v5.x | v5.x |

Test Card 10 Test Card 11 Test Card 12 Brand Mastercard Mastercard Discover MC+U.S. Maestro / Discover U.S. Debit / Description U.S. Maestro Maestro+U.S. Maestro Discover A000000041010 A000000004220301 A0000001524010 **AID list** A0000000042203 A0000001523010 A000000043060 A000000004220302 PAN on plastic 5413 3300 8909 9130 5413 3300 8902 0060 6011 9737 0000 0005 12/2023 **Expiry Date** 12/2025 12/2025 **Service Code** 220 201 201 Contactless, Contact, Interface Contact, MSR Contact, MSR MSR Online PIN (CBack) Offline Plaintext PIN Online PIN (CBack) Online PIN CVM (Contact) Online PIN Online PIN **Default Condition:** No CVM required No CVM required Signature (paper) **Terminal Supports CVM** See card definition See card definition No CVM required See card definition **Approval Amount** \$20.00 \$20.00 \$79.00 Issuer 840 - USA 840 - USA 840 - USA **Country Code** Application 840 - USD 840 - USD 840 - USD **Currency Code** 'enesfr' (English, Language 'en' - English 'en' - 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 | 0012 0300 0000 0003 |
| Expiry Date | 12/2023 | 12/2025 | 12/2028 |
| Service Code | 201 | 201 | 220 |
| Interface | Contact, MSR | Contact, MSR | Contactless, Contact, MSR |
| CVM (Contact) Default Condition: Terminal Supports CVM | Online PIN No CVM required See card definition | Online PIN (ATM) Online PIN (MCash) Online PIN No CVM required See card definition | Offline Enciphered PIN Offline Plaintext PIN Online PIN See card definition |
| Approval Amount | \$79.00 | \$10.00 | \$30.00 |
| Issuer Country Code | 840 - USA | 840 - USA | 124 - CAN |
| Application Currency Code | 840 - USD | 840 - USD | 124 -CAD |
| Language | 'en' - English | 'en' - English | 'en' - English |
| Card Version | v5.x | v5.x | v6.x |

| | Test Card 16 |
|--|--|
| | Test Gard 10 |
| Brand | Mastercard |
| Description | Credit / Debit / U.S. Maestro |
| AID list | A000000004101001 A000000004101002 A0000000042203 |
| PAN on plastic | 5413 3300 8902 0060 |
| Expiry Date | 12/2025 |
| Service Code | 201 |
| Interface | Contact, MSR |
| CVM (Contact) Default Condition: Terminal Supports CVM | Offline Plaintext PIN Online PIN Signature No CVM required Fail CVM Processing See card definition |
| Approval Amount | \$20.00 |
| Issuer Country Code | 840 - USA |
| Application Currency Code | 840 - USD |
| Language | 'en' - English |
| Card Version | v6.x |

4.1 Test Card 01 - Visa, DI, 2-AID (Visa Debit+US Debit), English, USA, USD

A Dual Interface (Contact+Contactless) 2-AID Visa debit card with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

4.1.1 Contact: CVM List - Visa Debit, AID A000000031010

| Cardho | Cardholder Verification Method List ('0201 4204 1E04 0205 5E00 4200 1F00') | | | |
|--------|--|------------------------|-----------------|--|
| CVM | Verification Method | Conditions | If unsuccessful | |
| 1 | Online PIN | Unattended Cash | Fail | |
| 2 | Online PIN | Manual Cash | Next CVM | |
| 3 | Signature (paper) | Manual Cash | Fail | |
| 4 | Online PIN | Purchase with Cashback | Fail | |
| 5 | Signature (paper) | Always | Next CVM | |
| 6 | Online PIN | Always | Next CVM | |
| 7 | No CVM required | Always | Fail | |

4.1.2 Contact: Application Tag data, AID A000000031010

| Tag | Element name | Data Card v5.x |
|------------|--|---|
| 42 | Issuer Identification Number (IIN) | 47 61 73 |
| 50 | Application Label | 56 49 53 41 20 44 45 42 49 54 20 20 |
| | | 20 20 20 20 - 'VISA DEBIT' |
| 57 | Track 2 Equivalent Data | 47 61 73 90 01 01 01 35 D2 41 22 01 |
| <i>-</i> ^ | Application Drive on Account Number | 19 55 94 58 00 00 0F 47 61 73 90 01 01 01 35 |
| 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 31 20 20 |
| 55.04 | Assiltantia Estimita Data | 20 20 - 'USA DEBIT/Test Card 01' 24 12 31 |
| 5F 24 | Application Expiration Date | _ |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 01 |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' |
| 82 | Application Interchange Profile [VIS] | 18 00 |
| | | BYTE 1: |
| | | b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported via |
| | | EXTERNAL AUTH command |
| | | b1 - Combined DDA / GEN AC NOT supported |
| | | BYTE 2: |
| | | b8 - Use for Visa NOT supported |
| 0.4 | Dedicated File (DF) Name | b7 - Is NOT Mobile handset A0 00 00 00 03 10 10 |
| 84 | Dedicated File (DF) Name | |
| 87 | Application Priority Indicator | 01 |
| 8C | Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 |
| | 1 (CDOL1) | 211 02 311 03 30 01 31 37 04 |

Tag Element name Data Card v5.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 trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed 00 96 9F 08 Application Version Number [VIS] FC 50 AC 88 00 9F 0D Issuer Action Code - Default 9F 0E 00 00 00 00 00 Issuer Action Code - Denial 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 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 03 9F 17 Personal Identification Number (PIN) Try Counter 9F 24 Payment Account Reference (PAR) 56 30 30 31 30 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 33 37 34 38 39 33 30 33 9F 26 C4 87 AB 1C 1A 67 97 B7 Application Cryptogram (AC) 80 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) xx xx * **Application Currency Code** 08 40 - USD 9F 42 9F 44 **Application Currency Exponent** 02 9F 4F 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F Transaction Log Format 1A 02 95 05 9C 01 9F 27 01 08 40 - USD 9F 51 Application Currency Code [VSDC] 00 00 00 00 00 9F 52 Application Default Action [VSDC VIS 80 9F 56 Issuer Authentication Indicator [VSDC] 08 40 - USA 9F 57 Issuer Country Code [VSDC] 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** BF 5A AIP/AFL Entries Template Application Internal Data Template DF 01 02 00 00 BF 5B

^{*} Tag value changes with card usage

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

| Cardho | Cardholder Verification Method List ('0201 0205 4200 1F00 0000') | | | |
|--------|--|------------------------|-----------------|--|
| CVM | Verification Method | Conditions | If unsuccessful | |
| 1 | Online PIN | Unattended Cash | Fail | |
| 2 | Online PIN | Purchase with Cashback | Fail | |
| 3 | Online PIN | Always | Next CVM | |
| 4 | No CVM required | Always | Fail | |
| 5 | Fail CVM Processing | Always | Fail | |

4.1.4 Contact: Application Tag data, AID A0000000980840

| Tag | Element name | Data Card v5.x |
|-------|--|--|
| 42 | Issuer Identification Number (IIN) | 47 61 73 |
| 50 | Application Label | 55 53 20 44 45 42 49 54 20 20 20 20 |
| | | 20 20 20 20 - 'US DEBIT' |
| 57 | Track 2 Equivalent Data | 47 61 73 90 01 01 01 35 D2 41 22 01 |
| | | 19 55 94 58 00 00 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 |
| 0. 20 | Caranoladi Hamo | 73 74 20 43 61 72 64 20 30 31 20 20 |
| | | 20 20 - 'USA DEBIT/Test Card 01' |
| 5F 24 | Application Expiration Date | 24 12 31 |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 01 |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' |
| 82 | Application Interchange Profile [VIS] | 18 00 |
| 02 | phication interestange i reme [vio] | BYTE 1: |
| | | b7 - Offline SDA NOT supported |
| | | b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported via EXTERNAL AUTH command |
| | | b1 - Combined DDA / GEN AC NOT supported |
| | | BYTE 2: |
| | | b8 - Use for Visa NOT supported |
| | | b7 - Is NOT Mobile handset |
| 84 | Dedicated File (DF) Name | A0 00 00 00 98 08 40 |
| 87 | Application Priority Indicator | 02 |
| 8C | Card Risk Management Data Object List | 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 02 05 |
| | List | 42 00 1F 00 00 00 00 00 |
| 94 | Application File Locator (AFL) | 08 01 02 00 |

| | T | |
|-------|--|---|
| 9F 07 | Application Usage Control | AB 80 |
| | | BYTE 1: |
| | | b8 - Domestic cash trans. valid |
| | | b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid |
| | | b5 - International goods NOT valid |
| | | b4 - Domestic services valid |
| | | b3 - International services NOT valid |
| | | b2 - ATMs valid |
| | | b1 - non-ATM terminals valid |
| | | BYTE 2: |
| | | b8 - Domestic cashback allowed |
| | | b7 - International cashback NOT allowed |
| 9F 08 | Application Version Number [VIS] | 00 96 |
| 9F 0D | Issuer Action Code - Default | FC 50 AC 88 00 |
| 9F 0E | Issuer Action Code - Denial | 00 00 00 00 00 |
| 9F 0F | Issuer Action Code - Online | FC 70 BC 98 00 |
| 9F 10 | Issuer Application Data [VSDC] | xx xx 0A xx xx xx * |
| 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) | 03 |
| | Try Counter | |
| 9F 24 | Payment Account Reference (PAR) | 56 30 30 31 30 30 31 33 30 31 36 31 |
| | | 37 33 31 30 36 36 39 33 30 33 37 34 |
| 05.00 | Application Counts are (AC) | 38 39 33 30 33 |
| 9F 26 | Application Cryptogram (AC) | 80 × × × × × × × × × × × × × × |
| 9F 27 | Cryptogram Information Data (CID) | |
| 9F 36 | Application Transaction Counter (ATC) | 9F 06 05 |
| 9F 38 | Processing Options Data Object List (PDOL) | 91 06 05 |
| 9F 42 | Application Currency Code | 08 40 - USD |
| 9F 44 | Application Currency Exponent | 02 |
| 9F 4F | Transaction Log Format | 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F |
| | _ | 1A 02 95 05 9C 01 9F 27 01 |
| 9F 51 | Application Currency Code [VSDC] | 08 40 - USD |
| 9F 52 | Application Default Action [VSDC VIS 1.5] | 00 00 00 00 00 00 |
| 9F 56 | Issuer Authentication Indicator [VSDC] | 80 |
| 9F 57 | Issuer Country Code [VSDC] | 08 40 - USA |
| 9F 5D | Available Offline Spending Amount | 00 00 00 00 00 |
| 3- | [VSDC] | |
| 9F 68 | Card Additional Processes [qVSDC | 10 00 80 00 |
| | VCPS 2.1] | |
| BF 55 | Contactless Counters Data Template | |
| BF 56 | Counters Data Template | |
| BF 57 | 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

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

| Super Identification Number (IIIN) | Tag | Element name | Data Card v5.x |
|--|-------|--|-------------------------------------|
| 56 | | | |
| Track 2 Equivalent Data | 50 | | 56 49 53 41 20 44 45 42 49 54 20 20 |
| SA | | • • | |
| SA | 57 | Track 2 Equivalent Data | |
| FAN September September | | | |
| SF 24 | 5A | | 47 61 73 90 01 01 01 35 |
| SF 28 Issuer Country Code 08 40 | | | 24.40.24 |
| SF 2D | | | |
| SF 34 Application PAN Sequence Number SF 55 Issuer Country Code (alpha2 format) SF 55 Issuer Country Code (alpha2 format) SF 53 - 'US' SF 24 Application Interchange Profile [VCPS] SF 25 SF 26 SF 26 | | | |
| SF 55 Issuer Country Code (alpha2 format) 55 53 - 1 US | | | |
| Application Interchange Profile [VCPS] | | | |
| BYTE 1: | | | |
| b7 - Offline DDA NOT supported | 82 | Application Interchange Profile [VCPS] | |
| b6 - Offline DDA NOT supported b5 - Cardholder verification NOT supported b4 - Terminal risk mgmt NOT to be performed b3 - Issuer authentication NOT supported wind EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported BYTE 2: b8 - Use for Visa NOT supported BYTE 2: b8 - Use for Visa NOT supported BYTE 2: b8 - Use for Visa NOT supported BYTE 2: b8 - Domestic and the supported b7 - Is NOT Mobile handset b8 - A0 00 00 00 03 10 10 - B8 - B | | | |
| b5 - Cardholder verification NOT supported b4 - Terminal risk mgmt NOT to be performed b3 - Issuer authentication NOT supported b4 - Terminal risk mgmt NOT to be performed b3 - Issuer authentication NOT supported wind EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset A0 00 00 00 03 10 10 0 00 00 00 03 10 10 0 00 00 00 00 00 00 00 00 00 00 0 | | | |
| b4 - Terminal risk mgmt NOT to be performed b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset b7 - International goods NOT valid b7 - International goods NOT valid b6 - Domestic cash trans. valid b6 - Domestic services NOT valid b6 - Domestic services NOT valid b6 - International services NOT valid b1 - International cashback NOT allowed b7 - International cashback NOT | | | |
| b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset | | | |
| B1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset | | | |
| BYTE 2: | | | |
| B8 - Use for Visa NOT supported b7 - Is NOT Mobile handset | | | |
| B4 | | | |
| 84 Dedicated File (DF) Name | | | |
| Application Priority Indicator 94 Application File Locator (AFL) 98 03 03 00 00 00 00 00 0 | 84 | Dedicated File (DF) Name | |
| Application File Locator (AFL) | | | |
| Second S | - | | |
| BYTE 1: | | | |
| b7 - Int'l cash transactions valid b6 - Domestic goods NOT valid b5 - International goods NOT valid b5 - International goods NOT valid b4 - Domestic services NOT valid b4 - Domestic services NOT valid b5 - International services NOT valid b2 - ATMs NOT valid b1 - non-ATM terminals NOT valid b1 - non-ATM terminals NOT valid b1 - non-ATM terminals NOT valid BYTE 2: | 31 01 | Application osage control [vol o] | |
| b6 - Domestic goods NOT valid b5 - International goods NOT valid b5 - International goods NOT valid b6 - Domestic services NOT valid b6 - Domestic services NOT valid b1 - Domestic services NOT valid b2 - ATMs NOT valid b1 - non-ATM terminals NOT valid b1 - International cashback NOT allowed b7 - International cashback NOT a | | | b8 - Domestic cash trans. valid |
| b5 - International goods NOT valid b4 - Domestic services NOT valid b3 - International services NOT valid b3 - International services NOT valid b2 - ATMs NOT valid b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed 9F 10 | | | |
| b4 - Domestic services NOT valid b3 - International services NOT valid b3 - International services NOT valid b1 - non-ATM terminals NOT valid b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed b7 - International cashback NO | | | |
| b3 - International services NOT valid b2 - ATMs NOT valid b1 - non-ATM terminals NOT valid b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed b7 - International ca | | | |
| b2 - ATMs NOT valid b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed b7 - Interna | | | |
| D1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT satisfact by \$\$ 56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 20 20 20 20 20 20 20 20 | | | |
| BYTE 2: | | | |
| Same Application Data [VCPS 2.2] Xx Xx Xx Xx Xx Xx Xx X | | | |
| 9F 10 Issuer Application Data [VCPS 2.2] xx xx 12 xx | | | b8 - Domestic cashback 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 20 20 20 20 - 'Visa Debit' 9F 13 Last Online Application Transaction Counter (ATC) Register xx xx x x x x x x x x x x x x x x x x | | | |
| 9F 12 Application Preferred Name | | | |
| 20 20 20 - 'Visa Debit' | | | |
| 9F 13 Last Online Application Transaction Counter (ATC) Register xx xx * xx xx * 9F 17 Personal Identification Number (PIN) Try Counter 03 9F 24 Payment Account Reference (PAR) 56 30 30 31 30 36 36 39 33 30 33 31 33 30 31 30 33 31 30 33 31 30 33 31 30 33 31 34 38 39 33 30 33 9F 26 Application Cryptogram (AC) xx | 9F 12 | Application Preferred Name | |
| Counter (ATC) Register 9F 17 Personal Identification Number (PIN) Try Counter 9F 24 Payment Account Reference (PAR) 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) 9F 37 Processing Options Data Object List (PDOL) 9F 4F Transaction Log Format 98 30 30 31 30 30 31 33 30 33 30 33 30 33 30 33 30 34 34 38 39 33 30 33 30 33 30 33 30 35 35 30 35 30 35 30 35 30 35 30 35 30 35 30 35 30 35 30 35 30 35 30 35 35 30 35 35 30 35 35 30 35 35 30 35 35 35 35 35 35 35 35 35 35 35 35 35 | OF 40 | Loot Online Application Transaction | |
| 9F 17 Personal Identification Number (PIN) Try Counter 03 9F 24 Payment Account Reference (PAR) 56 30 30 31 30 36 36 36 39 33 30 33 31 33 30 31 30 33 31 30 33 31 30 33 31 30 33 31 31 30 31 31 31 31 31 31 31 31 31 31 31 31 31 | 95 13 | · | AA AA " |
| Try Counter 9F 24 Payment Account Reference (PAR) 56 30 30 31 30 30 31 30 30 31 33 30 31 33 30 33 37 34 38 39 33 30 33 9F 26 Application Cryptogram (AC) xx | OF 47 | | 0.3 |
| 9F 24 Payment Account Reference (PAR) 56 30 30 31 30 30 31 30 30 31 33 30 31 33 30 31 33 37 34 38 39 33 30 33 9F 26 Application Cryptogram (AC) xx | 95 17 | | |
| 9F 26 Application Cryptogram (AC) xx | 0E 24 | | 56 30 30 31 30 30 31 33 30 31 36 31 |
| 9F 26 Application Cryptogram (AC) xx | 95 24 | rayment Account Reference (PAR) | |
| 9F 26 Application Cryptogram (AC) xx | | | |
| 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx xx * 9F 38 Processing Options Data Object List (PDOL) 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 06 01 9F 37 04 9F 4F Transaction Log Format 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 9F 07 01 | 9F 26 | Application Cryptogram (AC) | |
| 9F 36 Application Transaction Counter (ATC) xx xx * ** xx xx * 9F 38 Processing Options Data Object List (PDOL) 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 9A 03 9C 01 9F 37 04 9F 4F Transaction Log Format 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 9F 27 01 | | | 80 |
| 9F 38 Processing Options Data Object List (PDOL) 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 9F 04 03 9C 01 9F 37 04 9F 4F Transaction Log Format 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 9F 1A 02 9F 1A 02 9F 05 05 9C 01 9F 27 01 | | | xx xx * |
| (PDOL) 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 4F Transaction Log Format 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 9F 05 9C 01 9F 27 01 | | | 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 |
| 9F 4F Transaction Log Format 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 9F 27 01 | | | 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 |
| 1A 02 95 05 9C 01 9F 27 01 | 9F 4F | | 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F |
| 9F 51 Application Currency Code [VSDC] 08 40 - USD | | - | |
| | 9F 51 | Application Currency Code [VSDC] | 08 40 - USD |

| Application Default Action [VSDC] 9F 57 Issuer Country Code [VSDC] 9F 5A Application Program Identifier 9F 5D Available Offline Spending Amount [VSDC] 9F 68 Card Additional Processes [qVSDC VCPS 2.2] 9F 69 Card Authentication Related Data [qVSDC] U 00 00 00 00 00 00 BYTE 1: b8 - Online PIN NOT required b7 - Signature NOT required b6 - Do NOT go online if Offline Data Authentication fails and Reader is online capable b5 - Do NOT switch interface if Offline Data Authentication fails and Reader supports contact chip b4 - Do NOT go Online if Application Expired b3 - Do NOT switch interface for Cash Transactions b1 - Is valid for contactless ATM transactions b1 - Card does NOT Support Issuer Update Processing at POS 9F 6C Card Transaction Qualifiers [qVSDC] VCPS 2.2] 9F 6E Form Factor Indicator [qVSDC] BF 55 Contactless Counters Data Template BF 57 International Counters Data Template BF 58 Amounts Data Template BF 59 Profile Controls Template BF 59 Profile Controls Template BF 59 Application Internal Data Template BF 58 Application Internal Data Template BF 58 Application Internal Data Template BF 58 Application Internal Data Template | 05.50 | Annihination Default Antion (VCDC)/IC | 00 00 00 00 |
|---|-------|---|---|
| 9F 5A Application Program Identifier 9F 5D Available Offline Spending Amount [VSDC] 9F 68 Card Additional Processes [qVSDC VCPS 2.2] 9F 69 Card Authentication Related Data [qVSDC] 9F 60 Card Transaction Qualifiers [qVSDC] 9F 6C Card Transaction Qualifiers [qVSDC] 9F 6C Card Transaction Qualifiers [qVSDC] 9F 6E Form Factor Indicator [qVSDC] 9F 6E Contactless Counters Data Template 9F 57 International Counters Data Template 9F 58 Amounts Data Template 9F 59 Profile Controls Template 9F 50 AlP/AFL Entries Template 9F 50 AlP/AFL Entries Template 9F 50 AlP/AFL Entries Template | 9F 52 | Application Default Action [VSDC VIS 1.6] | 00 00 00 00 |
| 9F 5D Available Offline Spending Amount [VSDC] 00 00 00 00 00 00 00 9F 68 Card Additional Processes [qVSDC VCPS 2.2] 10 00 10 00 9F 69 Card Authentication Related Data [qVSDC] 01 00 00 00 00 00 00 00 BYTE 1: b8 - Online PIN 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 Cash Transactions b1 - Is valid for contactless ATM transactions BYTE 2: b8 - Consumer Device CVM NOT performed b7 - Card does NOT Support Issuer Update Processing at POS 9F 6C Card Transaction Qualifiers [qVSDC] VCPS 2.2] 00 00 9F 6E Form Factor Indicator [qVSDC] 20 70 00 00 BF 55 Contactless Counters Data Template 20 70 00 00 BF 58 Amounts Data Template BF 59 BF 59 Profile Controls Template BF 59 BF 50 AIP/AFL Entries Template BF 50 | 9F 57 | Issuer Country Code [VSDC] | 08 40 - USA |
| 9F 5D | 9F 5A | Application Program Identifier | 11 08 40 08 40 |
| VCPS 2.2] 9F 69 Card Authentication Related Data [qVSDC] RYE 1: B - 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 Cash Transactions b1 - Is valid for contactless ATM transactions BYTE 2: b8 - Consumer Device CVM NOT performed b7 - Card does NOT Support Issuer Update Processing at POS 9F 6C Card Transaction Qualifiers [qVSDC] VCPS 2.2] 9F 6E Form Factor Indicator [qVSDC] 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 59 Profile Controls Template BF 50 AIP/AFL Entries Template | | Available Offline Spending Amount | |
| Part Part | 9F 68 | | |
| 9F 6C Card Transaction Qualifiers [qVSDC VCPS 2.2] 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 | 9F 69 | | 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 |
| 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 | 9F 6C | | 00 00 |
| 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 | 9F 6E | | 20 70 00 00 |
| BF 57 International Counters Data Template BF 58 Amounts Data Template BF 59 Profile Controls Template BF 5A AIP/AFL Entries Template | BF 55 | Contactless Counters Data Template | |
| BF 58 Amounts Data Template BF 59 Profile Controls Template BF 5A AIP/AFL Entries Template | BF 56 | Counters Data Template | |
| BF 58 Amounts Data Template BF 59 Profile Controls Template BF 5A AIP/AFL Entries Template | BF 57 | International Counters Data Template | |
| BF 59 Profile Controls Template BF 5A AIP/AFL Entries Template | | | |
| BF 5A AIP/AFL Entries Template | | ' | |
| · · · · · · · · · · · · · · · · · · · | | | |
| | | | DF 01 02 00 00 |

^{*} Tag value changes with card usage

4.1.6 CTLS: Application Tag data, AID A0000000980840, (qVSDC, offline)

| Tag | Element name | Data Card v4 | 4.x |
|-------|-------------------------------------|------------------------------------|-----|
| 42 | Issuer Identification Number (IIN) | 47 61 73 | |
| 50 | Application Label | 56 49 53 41 20 44 45 42 49 54 20 | 20 |
| | | 20 20 20 20 - 'VISA DEBIT' | |
| 57 | Track 2 Equivalent Data | 47 61 73 90 01 01 01 35 D2 41 22 | 01 |
| | • | 19 55 94 58 00 00 1F | |
| 5F 20 | Cardholder Name | 43 41 52 44 48 4F 4C 44 45 52 2F | 56 |
| | | 49 53 41 20 20 20 20 20 20 20 20 3 | 20 |
| | | 20 20 - 'CARDHOLDER/VISA' | |
| 5F 2D | Language Preference | 65 6E | |
| 5F 34 | Application PAN Sequence Number | 01 | |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' | |

| 84 87 9F 10 | Application Interchange Profile [VCPS] Dedicated File (DF) Name Application Priority Indicator Issuer Application Data [VSDC] | 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 via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset A0 00 00 00 03 10 10 01 xx xx 12 xx xx xx xx xx * | | |
|-------------------|--|--|--|--|
| 9F 11 | Issuer Code Table Index | 01 | | |
| 9F 12 | Application Preferred Name | 56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 - 'Visa Debit' | | |
| 05.40 | Last Oallas Assiliant's Total | | | |
| 9F 13 | Last Online Application Transaction Counter (ATC) Register | xx xx * | | |
| 9F 17 | Personal Identification Number (PIN) | 03 | | |
| | Try Counter | | | |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * | | |
| 9F 27 | Cryptogram Information Data (CID) | 80 | | |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * | | |
| 9F 38 | Processing Options Data Object List | 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 | | |
| | (PDOL) | 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 | | |
| 9F 4F | Transaction Log Format | 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 9F 27 01 | | |
| 9F 51 | Application Currency Code [VSDC] | 08 40 - USD | | |
| 9F 52 | Application Default Action [VSDC VIS 1.5] | 00 00 00 00 | | |
| 9F 57 | Issuer Country Code [VSDC] | 08 40 - USA | | |
| 9F 5A | Application Program Identifier | 11 08 40 08 40 | | |
| 9F 5D | Available Offline Spending Amount [VSDC] | 00 00 00 00 00 | | |
| 9F 68 | Card Additional Processes [qVSDC VCPS 2.1] | 10 00 10 00 | | |
| 9F 6C | Card Transaction Qualifiers [qVSDC VCPS 2.1] | 00 00 | | |
| 9F 6E | Form Factor Indicator [qVSDC] | 20 70 00 00 | | |
| BF 55 | Contactless Counters Data Template | | | |
| BF 56 | Counters Data Template | | | |
| BF 57 | International Counters Data Template | | | |
| BF 58 | Amounts Data Template | | | |
| BF 59 | Profile Controls Template | | | |
| BF 5A | AIP/AFL Entries Template | | | |
| BF 5B | | DF 01 02 00 00 | | |
| DL 2R | Application Internal Data Template | DE 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

| 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 v5.x |
|-------|--|---|
| 42 | Issuer Identification Number (IIN) | 47 61 73 |
| 50 | Application Label | 55 53 20 44 45 42 49 54 - 'US DEBIT' |
| 57 | Track 2 Equivalent Data | 47 61 73 90 01 01 01 35 D2 41 22 01 |
| 01 | Track 2 Equivalent Bata | 19 55 94 58 00 00 0F |
| 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 32 20 20 |
| | | 20 - 'USA DEBIT/Test Card 02' |
| 5F 24 | Application Expiration Date | 24 12 31 |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 01 |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' |
| 82 | Application Interchange Profile [VIS] | 18 00 |
| | | BYTE 1: |
| | | b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported via |
| | | EXTERNAL AUTH command |
| | | b1 - Combined DDA / GEN AC NOT supported |
| | | BYTE 2: |
| | | b8 - Use for Visa NOT supported |
| 0.4 | Dedicated File (DF) Name | b7 - Is NOT Mobile handset A0 00 00 00 98 08 40 |
| 84 | Dedicated File (DF) Name | 02 |
| 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 |
| 0.0 | 1 (CDOL1) | 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 |
| 0.5 | 2 (CDOL2) | 00 00 00 00 00 00 00 00 02 01 00 04 |
| 8E | Cardholder Verification Method (CVM) | 02 05 42 00 1F 00 |
| 0.5 | List | 92 |
| 8F | Certification Authority Public Key Index | 32 |

9F 44

Application Currency Exponent

90 3C 96 F7 65 8F BC 29 A2 02 F1 91 46 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 B9 8F DF 01 49 A7 B7 8F DA 1C 49 67 10 01 01 00 10 02 05 01 B0 01 01 00 Application File Locator (AFL) AB 80 9F 07 **Application Usage Control** BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed Application Version Number [VIS] 9F 08 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 xx xx 0A xx xx xx xx * 9F 10 Issuer Application Data [VSDC] 01 9F 11 Issuer Code Table Index 9F 12 **Application Preferred Name** 55 53 20 44 65 62 69 74 - 'US Debit' 9F 13 Last Online Application Transaction Counter (ATC) Register 9F 17 Personal Identification Number (PIN) 03 Try Counter 9F 1F Track 1 Discretionary Data 20 9F 26 Application Cryptogram (AC) **xx xx xx xx xx xx xx *** 9F 27 Cryptogram Information Data (CID) 80 03 9F 32 Issuer Public Key Exponent xx xx * Application Transaction Counter (ATC) 9F 36

02

03 B8 82 2C E3 88 09 BF CE 61 BF 25 9F 46 ICC Public Key Certificate 91 7B DE FE 32 14 DB 4F E2 71 C7 13 E2 A9 F3 BC 76 B4 5F 24 F1 40 C7 12 96 F0 43 C3 3B FB 9E 53 D3 4A 7C 96 72 A9 A3 67 88 C0 70 3F 1F F9 23 D4 09 FB 1B D6 BC 8B C6 22 D0 65 E7 63 EE 95 BB B3 47 87 B6 BE 70 79 CE 22 1A DA 4D EE 8A 59 E4 54 C2 5B 00 62 8D 4C 6C BA 91 44 33 59 35 2C 1D 70 A4 D3 54 E4 DF 9C 07 1E 9F B8 F2 F3 1B A1 EB 20 1F E0 3F 34 DE 83 5C 4D 68 A8 55 06 50 24 9D 7E 4B FD 8B 43 EB 1B F3 6E 24 42 4E BE F0 E5 BF F3 4C 60 6E E2 C1 78 F7 AC 96 A1 AB 1D 5E EC E9 5E 0F 23 45 F9 9F 47 ICC Public Key Exponent 03 9F 37 04 9F 49 Dynamic Data Authentication Data Object List (DDOL) 9F 4A Static Data Authentication Tag List 82 08 40 - USD 9F 51 Application Currency Code [VSDC] 00 00 00 00 00 00 9F 52 Application Default Action [VSDC VIS 1.5] 00 9F 53 Consecutive Transaction Limit (International) [VSDC] 00 00 00 00 00 00 9F 54 **Cumulative Total Transaction Amount** Limit [VSDC] 9F 57 Issuer Country Code [VSDC] 08 40 - USA 00 9F 58 Consecutive Transaction Counter Limit [VSDC] 00 9F 59 Consecutive Transaction Counter Upper Limit [VSDC] **Cumulative Total Transaction Amount** 00 00 00 00 00 00 9F 5C Upper Limit [VSDC] 00 9F 5E Consecutive Transaction International Upper Limit [VSDC] 9F 72 Consecutive Transaction Limit 00 (International-Country) [VSDC] DF 11 01 01 DF 21 01 00 DF 31 01 00 BF 56 Counters Data Template DF 11 01 00 DF 21 01 00 DF 31 01 00 **BF 57** International Counters Data Template DF 51 01 00 DF 61 01 00 DF 11 06 00 00 00 00 00 DF 21 06 **BF 58** Amounts Data Template 00 00 00 00 00 00 DF 31 06 00 00 00 00 00 00

^{*} Tag value changes with card usage

4.3 Test Card 03 - Visa, CO, 3-AID (Credit+Debit+US Common, 2-Funding), English, USA, USD

A contact-only, 3-AID combination Visa credit & debit card with 2 funding accounts which has an issuer Country Code of 'USA' and Currency Code of 'USD'.

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

4.3.1 Contact: CVM List - Visa Credit, AID - A000000003101001

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

4.3.2 Contact: Application Tag data, AID A00000003101001

| Tag | Element name | Data Card v7.x |
|-------|--|---|
| 50 | Application Label | 56 49 53 41 20 43 52 45 44 49 54 20 |
| | | 20 20 20 20 - 'VISA CREDIT' |
| 57 | Track 2 Equivalent Data | 47 61 73 90 01 01 01 76 D2 41 22 01 |
| | | 14 83 53 94 00 00 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 | 24 12 31 |
| 5F 28 | Issuer Country Code | 08 40 |
| 5F 2D | Language Preference | 65 6E |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 01 |
| 82 | Application Interchange Profile [VIS] | 18 00 BYTE 1: |
| | | b7 - Offline SDA NOT supported |
| | | b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported via |
| | | EXTERNAL AUTH command |
| | | b1 - Combined DDA / GEN AC NOT supported |
| | | BYTE 2: |
| | | b8 - Use for Visa NOT supported |
| 0.4 | Dedicated File (DF) Name | b7 - Is NOT Mobile handset A0 00 00 00 03 10 10 01 |
| 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 |
| | 1 (CDOL1) | |
| 8D | Card Risk Management Data Object List | 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 |
| | 2 (CDOL2) | 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 v7.x |
|--------|--|---|
| 94 | Application File Locator (AFL) | 08 01 01 00 10 01 01 01 |
| 9F 07 | Application Usage Control | FF 00 |
| 0. 0. | , ipplication coage contact | 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 [VIS] | 00 96 |
| 9F 0D | Issuer Action Code - Default | FC 50 AC 88 00 |
| 9F 0E | Issuer Action Code - Denial | 00 00 00 00 00 |
| 9F 0F | Issuer Action Code - Online | FC 70 BC 98 00 |
| 9F 10 | Issuer Application Data [VSDC] | xx xx 0A xx xx xx * |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 12 | Application Preferred Name | 56 69 73 61 20 43 72 65 64 69 74 20 |
| | | 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 |
| | | 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 |
| DE 54 | AID/AEL Existent Tourist | 00 00 00 00 |
| BF 5A | AIP/AFL Entries Template | DF 11 0B 18 00 08 08 01 01 00 10 01 01 01 01 01 |
| BF 5B | Application Internal Data Template | DF 01 02 C0 00 DF 02 01 F1 |
| םני ום | Application internal Data Template | |

^{*} 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 v7.x |
|-------|---|---|
| 42 | Issuer Identification Number (IIN) | 47 61 73 |
| 50 | Application Label | 56 49 53 41 20 44 45 42 49 54 20 20 |
| | | 20 20 20 - 'VISA DEBIT' |
| 57 | Track 2 Equivalent Data | 47 61 73 90 01 01 01 35 D2 41 22 01 |
| | A 11 (1 D 1 A (A) | 14 83 53 94 00 00 0F 47 61 73 90 01 01 01 35 |
| 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 33 20 20 |
| 55.04 | Assiltantia Estimita Data | 20 20 - 'USA DEBIT/Test Card 03' |
| 5F 24 | Application Expiration Date | |
| 5F 28 | Issuer Country Code | 08 40 65 6E |
| 5F 2D | Language Preference | |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 01 |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' |
| 82 | Application Interchange Profile [VIS] | 18 00 |
| | | BYTE 1: b7 - Offline SDA NOT supported |
| | | b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported via |
| | | EXTERNAL AUTH command |
| | | b1 - Combined DDA / GEN AC NOT supported |
| | | BYTE 2: |
| | | b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset |
| 84 | Dedicated File (DF) Name | A0 00 00 00 03 10 10 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 | Cardbalder Varification Mathed (CVM) | 00 00 00 00 00 00 00 00 02 01 42 04 |
| 0E | Cardholder Verification Method (CVM) List | 1E 04 02 05 5E 00 42 00 1F 00 00 00 |
| 94 | Application File Locator (AFL) | 08 01 01 00 10 01 01 00 |

| Tag | Element name | Data Card v7.x |
|-------|--|---|
| 9F 07 | Application Usage Control | FF 80 |
| 0. 0. | 7 Application Coago Control | BYTE 1: |
| | | b8 - Domestic cash trans. valid |
| | | b7 - Int'l cash transactions valid |
| | | b6 - Domestic goods valid |
| | | b5 - International goods valid |
| | | b4 - Domestic services valid |
| | | b3 - International services valid |
| | | b2 - ATMs valid |
| | | b1 - non-ATM terminals valid BYTE 2: |
| | | b8 - Domestic cashback allowed |
| | | b7 - International cashback NOT allowed |
| 9F 08 | Application Version Number [VIS] | 00 96 |
| 9F 0D | Issuer Action Code - Default | FC 50 AC 88 00 |
| 9F 0E | Issuer Action Code - Denial | 00 00 00 00 00 |
| 9F 0F | Issuer Action Code - Online | FC 70 BC 98 00 |
| 9F 10 | Issuer Application Data [VSDC] | xx xx 0A xx xx xx x * |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 12 | Application Preferred Name | 56 69 73 61 20 44 65 62 69 74 20 20 |
| | | 20 20 20 - 'Visa Debit' |
| 9F 13 | Last Online Application Transaction | xx xx * |
| | Counter (ATC) Register | |
| 9F 17 | Personal Identification Number (PIN) | 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 |
| 9F 51 | Application Currency Code [VCDC] | 1A 02 95 05 9C 01 9F 27 01 08 40 - USD |
| | Application Currency Code [VSDC] | 00 00 00 00 00 00 |
| 9F 52 | Application Default Action [VSDC VIS | |
| OE EC | 1.5] | 00 |
| 9F 56 | Issuer Authentication Indicator [VSDC] | 08 40 - USA |
| 9F 57 | Issuer Country Code [VSDC] | 00 40 - 00A |
| BF 55 | Countary 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 |
| 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 |
| | 1 | 1 4 6 6 6 6 6 6 |
| BF 5B | Application Internal Data Template | 10 02 02 00 DF 01 02 C0 00 DF 02 01 F1 |

^{*} 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 v7.x |
|----------|--|--|
| 42 | Issuer Identification Number (IIN) | 47 61 73 |
| 50 | Application Label | 55 53 20 44 45 42 49 54 20 20 20 20 |
| | | 20 20 20 - 'US DEBIT' |
| 57 | Track 2 Equivalent Data | 47 61 73 90 01 01 01 35 D2 41 22 01 |
| | A 11 11 B | 14 83 53 94 00 00 0F 47 61 73 90 01 01 01 35 |
| 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 33 20 20 |
| O4 | Application Funination Data | 20 20 - 'USA DEBIT/Test Card 03' |
| 5F 24 | Application Expiration Date | 08 40 |
| 5F 28 | Issuer Country Code | 65 6E |
| 5F 2D | Language Preference | 02 01 |
| 5F 30 | Service Code | 01 |
| 5F 34 | Application PAN Sequence Number | |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' |
| 82 | Application Interchange Profile [VIS] | 18 00 BYTE 1: |
| | | b7 - Offline SDA NOT supported |
| | | b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported via |
| | | EXTERNAL AUTH command |
| | | b1 - Combined DDA / GEN AC NOT supported |
| | | BYTE 2: b8 - Use for Visa NOT supported |
| | | |
| 84 | | Lb7 - Is NOT Mobile handset |
| 87 | Dedicated File (DF) Name | b7 - Is NOT Mobile handset A0 00 00 00 98 08 40 |
| 8C | Dedicated File (DF) Name Application Priority Indicator | b7 - Is NOT Mobile handset A0 00 00 00 98 08 40 03 |
| | Application Priority Indicator | A0 00 00 00 98 08 40 |
| | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) | 03 |
| 8D | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List | A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 |
| 8D | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) | A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 |
| | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List 2 (CDOL2) | A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A |
| 8D 8E | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List | A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 |

| Application Usage Control AB 80 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b4 - Domestic services valid b3 - International services NOT valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT |
|--|
| BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed 9F 08 Application Version Number [VIS] 00 96 9F 0D Issuer Action Code - Default FC 50 AC 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 9F 0F Issuer Action Code - Online FC 70 BC 98 00 9F 10 Issuer Application Data [VSDC] xx xx 0A xx xx xx xx xx 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 20 20 20 20 20 20 |
| b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed 9F 08 Application Version Number [VIS] 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 0F Issuer Application Data [VSDC] 9F 10 Issuer Application Data [VSDC] 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 20 20 20 20 20 20 |
| b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed 9F 08 Application Version Number [VIS] 9F 0D Issuer Action Code - Default 9F 0E Issuer Action Code - Denial 9F 0E Issuer Action Code - Online 9F 0F Issuer Action Code - Online 9F 10 Issuer Application Data [VSDC] 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 20 20 20 20 20 20 |
| b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed 9F 08 Application Version Number [VIS] 9F 0D Issuer Action Code - Default 9F 0E Issuer Action Code - Default 9F 0F 0F Issuer Action Code - Denial 9F 0F Issuer Action Code - Online 9F 0F Issuer Action Code - Online 9F 10 Issuer Application Data [VSDC] 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 20 20 20 20 20 20 |
| b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed 9F 08 Application Version Number [VIS] 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 [VSDC] 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 20 20 20 20 20 20 |
| b3 - International services NOT valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed 9F 08 Application Version Number [VIS] 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 [VSDC] 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 20 20 20 20 20 20 |
| b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed 9F 08 |
| b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed 9F 08 Application Version Number [VIS] 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 [VSDC] 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 20 20 20 20 20 20 |
| BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed 9F 08 Application Version Number [VIS] 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 [VSDC] 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 20 20 20 20 20 20 |
| 9F 08 Application Version Number [VIS] 00 96 9F 0D Issuer Action Code - Default FC 50 AC 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 9F 0F Issuer Action Code - Online FC 70 BC 98 00 9F 10 Issuer Application Data [VSDC] xx xx 0A xx |
| 9F 08 Application Version Number [VIS] 00 96 9F 0D Issuer Action Code - Default FC 50 AC 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online FC 70 BC 98 00 9F 10 Issuer Application Data [VSDC] xx xx 0A xx xx xx xx xx xx 9F 11 Issuer Code Table Index 01 9F 12 Application Preferred Name 55 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20 20 20 20 20 20 |
| 9F 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 xx xx xx 9F 11 Issuer Code Table Index 01 9F 12 Application Preferred Name 55 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20 20 20 20 20 20 |
| 9F 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 xx xx 9F 11 Issuer Code Table Index 01 9F 12 Application Preferred Name 55 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20 20 20 20 20 20 |
| 9F 0F Issuer Action Code - Online FC 70 BC 98 00 9F 10 Issuer Application Data [VSDC] xx xx 0A xx |
| 9F 10 Issuer Application Data [VSDC] xx xx 0A xx xx xx xx xx xx 9F 11 Issuer Code Table Index 01 9F 12 Application Preferred Name 55 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20 20 20 20 20 20 |
| 9F 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 - 'US Debit' 9F 13 Last Online Application Transaction Counter (ATC) Register *** *** ** |
| 9F 12 Application Preferred Name 55 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20 - 'US Debit' 9F 13 Last Online Application Transaction Counter (ATC) Register *** *** * |
| 9F 13 Last Online Application Transaction Counter (ATC) Register |
| 9F 13 Last Online Application Transaction Counter (ATC) Register |
| Counter (ATC) Register |
| |
| 9F 17 Personal Identification Number (PIN) 00 |
| |
| Try Counter |
| 9F 26 Application Cryptogram (AC) xx |
| 9F 27 Cryptogram Information Data (CID) 80 |
| 9F 36 Application Transaction Counter (ATC) xx xx * |
| 9F 38 Processing Options Data Object List 9F 06 07 |
| (PDOL) |
| 9F 44 Application Currency Exponent 02 |
| 9F 4F Transaction Log Format 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F |
| 1A 02 95 05 9C 01 9F 27 01 |
| 9F 51 Application Currency Code [VSDC] 08 40 - USD |
| 9F 52 Application Default Action [VSDC VIS 00 00 00 00 00 00 |
| 1.5] |
| 9F 56 Issuer Authentication Indicator [VSDC] 00 |
| 9F 57 Issuer Country Code [VSDC] 08 40 - USA |
| BF 55 Contactless Counters Data Template |
| BF 56 Counters Data Template |
| BF 57 International Counters Data Template |
| BF 58 Amounts Data Template |
| BF 59 Profile Controls Template DF 11 0B 10 00 00 00 00 00 00 00 00 00 00 00 00 |
| 00 00 DF 12 0B 20 00 00 00 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 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 v5.x |
|-------|---|---|
| 50 | Application Label | 49 4E 54 45 52 4C 49 4E 4B - |
| | Table 0 Feet along Date | 'INTERLINK' |
| 57 | Track 2 Equivalent Data | 47 61 73 10 00 00 00 84 D2 41 22 21 13 50 61 46 89 00 0F |
| 5A | Application Primary Account Number (PAN) | 47 61 73 10 00 00 00 84 |
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 30 34 20 20 |
| | | 20 20 - 'USA DEBIT/Test Card 04' |
| 5F 24 | Application Expiration Date | 24 12 31 |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 21 |
| 5F 34 | Application PAN Sequence Number | 01 |
| 82 | Application Interchange Profile [VIS] | 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 via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset |
| 84 | Dedicated File (DF) Name | A0 00 00 00 03 30 10 |
| 87 | Application Priority Indicator | 01 |
| 8C | Card Risk Management Data Object List 1 (CDOL1) | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 |
| 8D | Card Risk Management Data Object List 2 (CDOL2) | 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 |
| 8E | Cardholder Verification Method (CVM) List | 00 00 00 00 00 00 00 00 02 03 1F 03 |
| 8F | Certification Authority Public Key Index | 92 |

Data Card v5.x Tag 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 1B F8 22 20 C2 58 AF A2 93 7D Signed Static Application Data OF E8 74 D7 73 89 E1 61 16 D7 AD CO 57 CO A7 EA 8B 55 06 45 61 65 E6 DA 6E 3D 87 8F 82 A2 9C 2D 11 F7 D1 35 51 CO 4F CB BE 60 77 8A 26 0B FF E5 69 17 1A 0D 0F 40 12 18 21 33 6C 5B 29 F1 2E 67 4C C3 E8 BD 82 63 8F 2F 75 3D 29 FF C6 1F 7F C9 71 6F 5B 82 A8 13 C8 75 BC 8E 0B 17 BF 13 06 65 94 B6 A5 DC 54 1F 75 58 90 3F 54 22 OF AB 90 3B 84 DC B7 DD 4E 44 3E 05 6F AO 54 96 8E 0F 9F 9D A7 EC 92 D4 B7 AC 52 A3 47 2E E7 6E 19 05 2A B9 30 C5 D4 64 3E 73 21 0B 7F E4 19 31 81 2B 1A 38 36 B6 5D 10 01 01 00 10 02 05 01 10 08 08 00 94 Application File Locator (AFL) B0 01 01 00 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 BYTF 2: b8 - Domestic cashback allowed b7 - International cashback allowed 00 96 9F 08 Application Version Number [VIS] 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 0A xx 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 Application Cryptogram (AC) * * * * * * * * * * * * * * 9F 26 80 9F 27 Cryptogram Information Data (CID)

| Tag | Element name | Data Card v5.x |
|-------|--|---|
| 9F 32 | Issuer Public Key Exponent | 03 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 44 | Application Currency Exponent | 02 |
| 9F 46 | ICC Public Key Certificate | 99 78 79 D1 6F BD 5A 24 C6 08 B9 2B |
| | , | F2 72 36 15 24 EB 92 9C 23 DD 60 FD |
| | | 65 81 96 DF AA 2B E1 0A 60 9A 72 23 |
| | | 42 0E A5 69 F7 EB 8D 47 64 BF E0 08 1F 62 8D 9B CA 3C 71 0E 11 C6 64 D7 |
| | | 65 FB CF 1D 04 0B 17 42 12 46 C3 14 |
| | | 45 0D 39 31 0B D8 6C D5 C8 23 99 03 |
| | | A2 75 51 5C D4 6A B0 82 2E BD 47 18 |
| | | 02 30 D9 0D 87 60 A4 1C 94 DC EB A5 |
| | | 15 1A 66 D7 82 27 AF F8 9E AB CO 36 BO 28 18 7F 43 9E 55 85 95 C8 F8 F6 |
| | | 5E 07 1F 93 55 D7 50 3A 4D 8B 5A 7C |
| | | B2 A0 3C FD E9 74 73 09 9A 8E 8A AF |
| | | D2 37 BB E8 12 3E 4C 7C E9 71 A5 28 |
| | | F1 FE C3 FD DF B1 E0 6A |
| 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 | CO 00 00 00 00 00 |
| | 1.5] | |
| 9F 53 | Consecutive Transaction Limit | 00 |
| | (International) [VSDC] | |
| 9F 54 | Cumulative Total Transaction Amount Limit [VSDC] | 00 00 00 00 00 00 |
| 9F 56 | Issuer Authentication Indicator [VSDC] | 80 |
| 9F 57 | Issuer Country Code [VSDC] | 08 40 - USA |
| 9F 58 | Consecutive Transaction Counter Limit [VSDC] | 00 |
| 9F 59 | Consecutive Transaction Counter Upper Limit [VSDC] | 00 |
| 9F 5C | Cumulative Total Transaction Amount Upper Limit [VSDC] | 00 00 00 00 00 |
| 9F 5E | Consecutive Transaction International Upper Limit [VSDC] | 00 |
| BF 56 | Counters Data Template | DF 11 01 01 DF 21 01 00 DF 31 01 00 |
| BF 57 | International Counters Data Template | DF 11 01 00 DF 21 01 00 DF 31 01 00 DF 51 01 00 |
| BF 58 | Amounts Data Template | DF 11 06 00 00 00 00 00 00 DF 21 06 |
| | | 00 00 00 00 00 00 DF 31 06 00 00 00 00 00 00 00 00 |
| | | 00 00 00 |

^{*} 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

| Cardhol | Cardholder Verification Method List ('4201 0205 5E03 4203 1F00') | | | | | |
|---------|--|----------------------------|----------|--|--|--|
| CVM | Verification Method Conditions If unsuccessi | | | | | |
| 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 v6.x |
|-------|--|--|
| 42 | Issuer Identification Number (IIN) | 54 13 33 |
| 50 | Application Label | 4D 41 53 54 45 52 43 41 52 44 20 44 |
| | | 45 42 49 54 - 'MASTERCARD DEBIT' |
| 57 | Track 2 Equivalent Data | 54 13 33 00 89 09 91 30 D2 51 22 01 14 83 59 49 00 0F |
| 5A | Application Primary Account Number | 54 13 33 00 89 09 91 30 |
| | (PAN) | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 30 35 20 20 20 20 - 'USA DEBIT/Test Card 05' |
| 5F 24 | Application Expiration Data | 25 12 31 |
| 5F 25 | Application Expiration Date Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 11 |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' |
| 82 | Application Interchange Profile | 18 00 |
| 02 | 7 Application interestiange i Tellie | BYTE 1: |
| | | b7 - Offline SDA NOT supported |
| | | b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported via EXTERNAL AUTH command |
| | | b1 - Combined DDA / GEN AC NOT supported |
| | | BYTE 2: |
| | | b8 - EMV Contactless NOT supported |
| 84 | Dedicated File (DF) Name | A0 00 00 00 04 10 10 |
| 87 | Application Priority Indicator | 01 |
| 8C | Card Risk Management Data Object List | 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 |
| 8D | Card Risk Management Data Object List | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| | 2 (CDOL2) | |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 42 01 02 05 |
| | List | 5E 03 42 03 1F 00 |

| Tag | Element name | Data Card v6.x |
|-------|--|---|
| 94 | Application File Locator (AFL) | 10 01 03 00 |
| 94 | Application File Locator (AFL) | 10 01 03 00 |
| 9F 07 | Application Usage Control | FF CO |
| | 77 | 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 xx xx xx xx xx xx xx xx |
| | Advance] | xx xx xx xx xx xx * |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 12 | Application Preferred Name | 4D 61 73 74 65 72 63 61 72 64 20 44 |
| 01 12 | Application Follows Hame | 65 62 69 74 - 'Mastercard Debit' |
| 9F 14 | Counter 1 Lower Limit [Mastercard] | 00 |
| 9F 17 | Personal Identification Number (PIN) | 03 |
| 01 17 | Try Counter | |
| 9F 23 | Counter 1 Upper Limit [Mastercard] | 00 |
| 9F 24 | Payment Account Reference (PAR) | 35 30 30 31 41 42 43 44 45 46 47 48 |
| 31 24 | ayment Account Reference (FAR) | 49 4A 4B 4C 4D 4E 4F 50 51 52 53 54 |
| | | 55 56 57 58 59 |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | 00 OF |
| 9F 42 | Application Currency Code | 08 40 - USD |
| 9F 4D | Transaction Log Entry | OB OA |
| 9F 4F | Transaction Log Format | 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F |
| 01 11 | Transaction Log Format | 36 02 9F 52 06 DF 3E 01 9F 21 03 9F |
| | | 7C 14 |
| 9F 6E | Third Party Data [Mastercard] | 08 40 00 00 30 30 00 |
| 9F 7E | Application Life Cycle Data [Mastercard] | 04 10 0B 14 00 01 00 00 50 17 79 00 |
| | | A0 00 00 00 04 10 10 00 00 00 00 00 |
| | | 00 00 00 00 00 96 00 97 02 00 5A 5A |
| | Condition Code (Contact) | 00 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 50 00 |
| C4 | Card Issuer Action Code (Contact) - | 00 30 00 |
| 05 | Default [M/Chip Advance] | 06 ED 00 |
| C5 | Card Issuer Action Code (Contact) - | 06 FB 00 |
| | Online [M/Chip Advance] | |
| C6 | PIN Try Limit [M/Chip Advance] | 03 |
| C7 | CDOL1 Related Data Length | 42 |
| | [Mastercard] | |
| C8 | CRM Country Code [Mastercard] | 08 40 - USA |
| C9 | Accumulator 1 Currency Code | 08 40 - USD |
| | [Mastercard] | |
| CA | Accumulator 1 Lower Limit [Mastercard] | 00 00 00 00 00 |
| CB | Accumulator 1 Upper Limit [Mastercard] | 00 00 00 00 00 |

Card v6.x Tag Element name Data 00 58 00 CD Card Issuer Action Code (Contactless) -Default [M/Chip Advance] CE Card Issuer Action Code (Contactless) -06 F8 00 Online [M/Chip Advance] CF Card Issuer Action Code (Contactless) -08 00 00 Decline [M/Chip Advance] 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 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] 80 00 80 00 C6 02 D5 00 10 D6 Default ARPC Response Code [M/Chip Advance] D7 Application Control [M/Chip Advance] 00 00 80 00 E6 02 08 01 03 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] C1 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] Accumulator 2 Currency Code 08 40 - USD DF 16 [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] 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 C1 Advance] 00 DF 1D Counter 2 Control (Contact) [M/Chip Advance1 00 Counter 2 Control (Contactless) [M/Chip DF 1E Advance1 Counter 2 Lower Limit [Mastercard] 00 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 40 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 v6.x Tag 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 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] 03 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** 01 (Contactless) [M/Chip Advance] Read Record Filter (Contact) [M/Chip 00 DF 3F Advance] DF 40 Read Record Filter (Contactless) 10 01 01 00 [M/Chip Advance] DS Management Control [M/Chip 20 DF 41 Advance]

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

| Cardholder Verification Method List ('4205 4203 1F03 0000') | | | | | | |
|---|--|----------------------------|----------|--|--|--|
| CVM | CVM Verification Method Conditions If unsucc | | | | | |
| 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 v6.x |
|-------|------------------------------------|-------------------------------------|
| 42 | Issuer Identification Number (IIN) | 54 13 33 |
| 50 | Application Label | 55 53 20 4D 41 45 53 54 52 4F 20 20 |
| | • | 20 20 20 20 - 'US MAESTRO' |
| 57 | Track 2 Equivalent Data | 54 13 33 00 89 09 91 30 D2 51 22 01 |
| | • | 14 83 59 49 00 OF |
| 5A | Application Primary Account Number | 54 13 33 00 89 09 91 30 |
| | (PAN) | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 30 35 20 20 |
| | | 20 20 - 'USA DEBIT/Test Card 05' |
| 5F 24 | Application Expiration Date | 25 12 31 |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 01 |

^{*} Tag value changes with card usage

Data Card v6.x Tag Element name 11 5F 34 Application PAN Sequence Number 5F 55 Issuer Country Code (alpha2 format) 55 53 - 'US' XXXXXXXXXXXX Issuer Identification Number (IIN) 54 13 33 42 55 53 20 4D 41 45 53 54 52 4F 20 20 50 Application Label 20 20 20 - 'US MAESTRO' 54 13 33 00 89 09 91 30 D2 51 22 01 57 Track 2 Equivalent Data 14 83 59 49 00 OF 54 13 33 00 89 09 91 30 5A Application Primary Account Number (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 30 35 20 20 20 20 - 'USA DEBIT/Test Card 05' 25 12 31 5F 24 **Application Expiration Date** 5F 25 **Application Effective Date** xx xx xx * 5F 28 **Issuer Country Code** 08 40 - USA 5F 2D 65 6E - 'en' (English) Language Preference 5F 30 02 01 Service Code 11 5F 34 Application PAN Sequence Number 5F 55 55 53 - 'US' Issuer Country Code (alpha2 format) 18 00 82 Application Interchange Profile BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via **EXTERNAL AUTH command** b1 - Combined DDA / GEN AC NOT supported BYTE 2: **b8** - EMV Contactless NOT supported A0 00 00 00 04 22 03 84 Dedicated File (DF) Name Application Priority Indicator 87 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 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 42 05 42 03 8E Cardholder Verification Method (CVM) 1F 03 00 00 00 00 94 10 01 02 00 10 04 04 00 Application File Locator (AFL) 10 01 02 00 10 04 04 00 Application File Locator (AFL) 94 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 9F 0D Issuer Action Code - Default B0 50 9C 88 00 9F 0E 00 00 00 00 00 Issuer Action Code - Denial B0 70 9C 98 00 9F 0F Issuer Action Code - Online

Tag Card v6.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 9F 24 Payment Account Reference (PAR) 35 30 30 31 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F 50 51 52 53 54 55 56 57 58 59 9F 26 Application Cryptogram (AC) **xx xx xx xx xx xx xx x** 9F 27 Cryptogram Information Data (CID) 80 00 10 9F 36 Application Transaction Counter (ATC) 9F 42 **Application Currency Code** 08 40 - USD 9F 4D 0B 0A Transaction Log Entry 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F Transaction Log Format 9F 4F 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 00 00 00 Card Issuer Action Code (Contact) -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 CDOL1 Related Data Length 42 C7 [Mastercard] 08 40 - USA C8 CRM Country Code [Mastercard] Accumulator 1 Currency Code 08 40 - USD C9 [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 58 00 CD Card Issuer Action Code (Contactless) -Default [M/Chip Advance] CE 06 F8 00 Card Issuer Action Code (Contactless) -Online [M/Chip Advance] CF Card Issuer Action Code (Contactless) -08 00 00 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 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] 80 00 80 00 C6 02 Default ARPC Response Code [M/Chip 00 10 D6 Advancel D7 Application Control [M/Chip Advance] 00 00 80 00 E6 02 08 01 02 00 08 04 04 00 D9 Application File Locator (Contactless) DE Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 იი DF 02 Security Limits Status (Contact) [M/Chip Advance]

Data Card v6.x Tag Element name DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] **DF 12** Accumulator 1 Control (Contactless) C1 [M/Chip Advance] Accumulator 2 Control (Contact) **DF 14** 00 [M/Chip Advance] 00 **DF 15** Accumulator 2 Control (Contactless) [M/Chip Advance] DF 16 Accumulator 2 Currency Code 08 40 - USD [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 00 00 00 00 00 00 DF 18 Accumulator 2 Lower Limit [Mastercard] DF 19 Accumulator 2 Upper Limit [Mastercard] 00 00 00 00 00 00 C1 DF 1A Counter 1 Control (Contact) [M/Chip Advance] C1 DF 1B Counter 1 Control (Contactless) [M/Chip Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 Advance] DF 1E Counter 2 Control (Contactless) [M/Chip 00 Advance1 Counter 2 Lower Limit [Mastercard] 00 DF 1F 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 Advance] MTA Currency Code [M/Chip Advance] 08 40 DF 24 00 00 00 00 00 00 MTA NoCVM (Contact) [M/Chip DF 25 Advance1 MTA NoCVM (Contactless) [M/Chip 00 00 00 00 00 00 **DF 26** Advance1 Number Of Days Offline Limit [M/Chip 00 00 **DF 27** Advance1 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 Counter 1 CVR Dependency Data DF₂C (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 Interface Enabling Switch [M/Chip **DF 30** Advance] Security Limits Status (Contactless) 00 **DF 35** [M/Chip Advance] Security Limits Status Common [M/Chip 00 **DF 37** Advance]

Data Card v6.x Tag Element name 00 DF 3C **CVR Issuer Discretionary Data** (Contact) [M/Chip Advance] DF 3D **CVR Issuer Discretionary Data** 01 (Contactless) [M/Chip Advance] 00 DF 3F Read Record Filter (Contact) [M/Chip Advance] Read Record Filter (Contactless) 10 01 01 00 DF 40 [M/Chip Advance] 20 DS Management Control [M/Chip DF 41 Advance]

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

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

4.5.6 CTLS: Application Tag data, AID A000000041010 (PayPass)

| Tag | Element name | Data Card v6.x |
|-------|--|--|
| 42 | Issuer Identification Number (IIN) | 54 13 33 |
| 50 | Application Label | 4D 41 53 54 45 52 43 41 52 44 20 44 |
| | | 45 42 49 54 - 'MASTERCARD DEBIT' |
| 56 | Track 1 Equivalent Data [Mastercard] | 42 35 34 31 33 33 33 30 30 38 39 30 |
| | | 39 39 31 33 30 5E 20 2F 5E 32 35 31 32 32 30 31 31 34 38 33 35 39 34 39 |
| | | 30 30 30 30 30 30 30 30 30 30 30 30 |
| | | 30 30 30 30 30 |
| 57 | Track 2 Equivalent Data | 54 13 33 00 89 09 91 30 D2 51 22 01 |
| | 4. | 14 83 59 49 00 OF |
| 5A | Application Primary Account Number (PAN) | 54 13 33 00 89 09 91 30 |
| 5F 24 | Application Expiration Date | 25 12 31 |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 34 | Application PAN Sequence Number | 11 |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' |
| 82 | Application Interchange Profile | 18 80 |
| | | BYTE 1: |
| | | b7 - Offline SDA NOT supported |
| | | b6 - Offline DDA NOT supported b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported via |
| | | EXTERNAL AUTH command |
| | | b1 - Combined DDA / GEN AC NOT supported |
| | | BYTE 2: |
| | | b8 - EMV Contactless supported |
| 84 | Dedicated File (DF) Name | A0 00 00 00 04 10 10 |
| 87 | Application Priority Indicator | 01 |

^{*} Tag value changes with card usage

Element name Data Tag Card v6.x 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 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 02 05 5E 03 8E Cardholder Verification Method (CVM) 02 03 1F 03 00 00 08 01 03 00 94 Application File Locator (AFL) 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 00 02 9F 08 **Application Version Number** Issuer Action Code - Default B4 50 84 00 00 9F 0D 00 00 00 00 00 9F 0E Issuer Action Code - Denial B4 70 84 80 00 9F 0F Issuer Action Code - Online 9F 10 Issuer Application Data [M/Chip xx xx xx xx xx xx * Advance] 01 Issuer Code Table Index 9F 11 9F 12 4D 61 73 74 65 72 63 61 72 64 20 44 Application Preferred Name 65 62 69 74 - 'Mastercard Debit' 00 9F 14 Counter 1 Lower Limit [Mastercard] Personal Identification Number (PIN) 03 9F 17 Try Counter იი 9F 23 Counter 1 Upper Limit [Mastercard] 35 30 30 31 41 42 43 44 45 46 47 48 9F 24 Payment Account Reference (PAR) 49 4A 4B 4C 4D 4E 4F 50 51 52 53 54 55 56 57 58 59 9F 26 Application Cryptogram (AC) xx xx xx xx xx xx xx ** 9F 27 80 Cryptogram Information Data (CID) 00 OB 9F 36 Application Transaction Counter (ATC) 9F 42 **Application Currency Code** 08 40 - USD 9F 4A Static Data Authentication Tag List 82 9F 4D Transaction Log Entry OB OA 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 00 00 00 00 00 00 9F 62 Track 1 Bitmap for CVC3 (PCVC3 Track 1) [Mastercard] 9F 63 Track 1 Bitmap for UN and ATC 00 00 00 00 00 00 (PUNATC Track 1) [Mastercard] 9F 64 Track 1 Number of ATC Digits (NATC 00 Track 1) [Mastercard] 00 00 9F 65 Track 2 Bitmap for CVC3 (PCVC3 Track 2) [Mastercard] 00 00 9F 66 Track 2 Bitmap for UN and ATC (PUNATC Track 2) [Mastercard] 9F 67 Track 2 Number of ATC Digits (NATC 02 Track 2) [Mastercard]

Tag Data Element name Card v6.x 54 13 33 00 89 09 91 30 D2 51 22 01 9F 6B Track 2 Equivalent Data [Mastercard] 14 83 59 49 00 00 OF 9F 6C Application Version [Mastercard] 00 01 08 40 00 00 30 30 00 9F 6E Third Party Data [Mastercard] 04 10 0B 14 00 01 00 00 50 17 79 00 9F 7E Application Life Cycle Data [Mastercard] A0 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 00 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 03 PIN Try Limit [M/Chip Advance] C7 42 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] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] Card Issuer Action Code (Contactless) -00 58 00 CD Default [M/Chip Advance] 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] 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 Application Control [M/Chip Advance] 80 00 80 00 C6 02 00 10 D6 Default ARPC Response Code [M/Chip Advance] D7 00 00 80 00 E6 02 Application Control [M/Chip Advance] DF 02 Security Limits Status (Contact) [M/Chip 00 Advance]

4.5.7 CTLS: CVM List - U.S. Maestro, AID A0000000042203 (PayPass)

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

4.5.8 CTLS: Application Tag data, AID A0000000042203 (PayPass)

| Tag | Element name | Data Card v5.x |
|-----|------------------------------------|-------------------------------------|
| 42 | Issuer Identification Number (IIN) | 54 13 33 |
| 50 | Application Label | 55 53 20 4D 41 45 53 54 52 4F 20 20 |
| | | 20 20 20 - 'US MAESTRO' |

^{*} Tag value changes with card usage

Data Tag Element name Card v5.x 42 35 34 31 33 33 33 30 30 38 39 30 56 Track 1 Equivalent Data [Mastercard] 39 39 31 33 30 5E 20 2F 5E 32 35 31 32 32 30 31 31 34 38 33 35 39 34 39 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 54 13 33 00 89 09 91 30 D2 51 22 01 57 Track 2 Equivalent Data 14 83 59 49 00 OF 5A **Application Primary Account Number** 54 13 33 00 89 09 91 30 (PAN) 5F 24 25 12 31 **Application Expiration Date** xx xx xx * 5F 25 **Application Effective Date** 08 40 - USA 5F 28 Issuer Country Code 65 6E - 'en' (English) 5F 2D Language Preference 5F 34 Application PAN Sequence Number 11 5F 55 Issuer Country Code (alpha2 format) 55 53 - 'US' 18 80 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 A0 00 00 00 04 22 03 84 Dedicated File (DF) Name 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 Card Risk Management Data Object List 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 2 (CDOL2) 8E 00 00 00 00 00 00 00 00 02 05 42 03 Cardholder Verification Method (CVM) 1F 03 00 00 00 00 08 01 02 00 08 04 04 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 00 02 9F 08 **Application Version Number** 9F 0D Issuer Action Code - Default B4 50 84 00 00 00 00 00 00 00 9F 0E Issuer Action Code - Denial 70 84 80 00 9F 0F Issuer Action Code - Online 9F 10 xx 10 xx Issuer Application Data [M/Chip xx xx xx xx xx xx * Advance] 01 9F 11 Issuer Code Table Index 9F 12 **Application Preferred Name** 55 53 20 4D 61 65 73 74 72 6F 20 20 20 20 20 - US Maestro' 9F 14 Counter 1 Lower Limit [Mastercard]

Tag Card v5.x Element name Data 9F 17 Personal Identification Number (PIN) Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 00 35 30 30 31 41 42 43 44 45 46 47 48 9F 24 Payment Account Reference (PAR) 49 4A 4B 4C 4D 4E 4F 50 51 52 53 54 55 56 57 58 59 9F 26 Application Cryptogram (AC) xx xx xx xx xx xx xx ** 9F 27 Cryptogram Information Data (CID) 80 00 OD 9F 36 Application Transaction Counter (ATC) **Application Currency Code** 08 40 - USD 9F 42 9F 4A 82 Static Data Authentication Tag List 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 00 00 00 00 00 00 9F 62 Track 1 Bitmap for CVC3 (PCVC3 Track 1) [Mastercard] 9F 63 Track 1 Bitmap for UN and ATC 00 00 00 00 00 00 (PUNATC Track 1) [Mastercard] Track 1 Number of ATC Digits (NATC 00 9F 64 Track 1) [Mastercard] 00 00 Track 2 Bitmap for CVC3 (PCVC3 Track 9F 65 2) [Mastercard] 00 00 9F 66 Track 2 Bitmap for UN and ATC (PUNATC Track 2) [Mastercard] Track 2 Number of ATC Digits (NATC 02 9F 67 Track 2) [Mastercard] Track 2 Equivalent Data [Mastercard] 9F 6B 54 13 33 00 89 09 91 30 D2 51 22 01 14 83 59 49 00 00 OF 9F 6C Application Version [Mastercard] 00 01 08 40 00 00 30 30 00 9F 6E Third Party Data [Mastercard] 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 50 17 79 00 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 00 00 C3 Card Issuer Action Code (Contact) -Decline [M/Chip Advance] C4 06 50 00 Card Issuer Action Code (Contact) -Default [M/Chip Advance] C5 06 FB 00 Card Issuer Action Code (Contact) -Online [M/Chip Advance] 03 C6 PIN Try Limit [M/Chip Advance] C7 CDOL1 Related Data Length 42 [Mastercard] C8 CRM Country Code [Mastercard] 08 40 - USA Accumulator 1 Currency Code 08 40 - USD C9 [Mastercard] CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 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] 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

| Tag | Element name | Da | Data | | Card v5.x | | | | | | | | |
|-------|---|----------|------|----|-----------|----|----|----|----|----|----|----|----|
| D3 | Additional Check Table [Mastercard] | 00 FF | | | FF FF | | | FF | FF | FF | FF | FF | FF |
| D5 | Application Control [M/Chip Advance] | 80 | 00 | 80 | 00 | С6 | 02 | | | | | | |
| D6 | Default ARPC Response Code [M/Chip Advance] | 00 | 10 | | | | | | | | | | |
| D7 | Application Control [M/Chip Advance] | 00 | 00 | 80 | 00 | E6 | 02 | | | | | | |
| DF 02 | Security Limits Status (Contact) [M/Chip Advance] | 00 | | | | | | | | | | | |

^{*} Tag value changes with card usage

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

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

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

4.6.1 Contact: CVM List - Maestro Debit, AID A000000043060D0561111

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

4.6.2 Contact: Application Tag data, AID A000000043060D0561111

| Tag | Element name | Data | Card v5.x |
|-------|------------------------------------|----------------------------------|-----------|
| 50 | Application Label | 4D 41 45 53 54 52 4F 31 20 | 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 OF | |
| 5A | Application Primary Account Number | 67 99 99 89 00 00 02 01 OF | |
| | (PAN) | | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 65 62 69 74 | 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 30 | 36 20 20 |
| | | 20 20 - 'USA DEBIT/Test Card 06' | |
| 5F 24 | Application Expiration Date | 25 12 31 | |
| 5F 25 | Application Effective Date | xx xx xx * | |
| 5F 28 | Issuer Country Code | 05 28 - NLD | |
| 5F 2D | Language Preference | 65 6E - 'en' (English) | |
| 5F 30 | Service Code | 02 20 | |
| 5F 34 | Application PAN Sequence Number | 31 | |

| Application Interchange Profile | Tag | Element name | Data Card v5.x |
|--|-------|------------------------------------|---|
| BYTE 1: | | î | |
| 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 DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported DDA / GEN AC NOT su | 02 | , ppilodion interestange i rome | BYTE 1: |
| 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: b8 - EMV mode NOT supported BYTE 2: b7 - BYTE | | | |
| 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 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 B1 | | | |
| 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 BYTE 2: B8 - EMV mode NOT supported BYTE 3: B9 - D0 00 00 00 00 00 00 00 00 00 00 00 00 | | | |
| 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 3: 24 0.0 0.0 0.0 0.0 0.0 9.0 1.9 F. 37 0.4 9F. 35 0.2 9F. 45 0.2 9F. 40 8F. 34 0.3 9F. 21 0.2 95 0.5 9F. 45 0.2 9F. 40 8F. 34 0.3 9F. 21 0.2 9F. 45 0.2 9F. 40 8F. 34 0.3 9F. 21 0.2 9F. 70 1.4 9F. 40 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 | | | |
| Supported 11 - Combined DDA / GEN AC NOT supported 12 - Combined DDA / GEN AC NOT supported 13 - Combined DDA / GEN AC NOT supported 14 - Combined DDA / GEN AC NOT supported 15 - Combined DDA / GEN AC NOT supported 16 - Application Priority Indicator 16 - Application Priority Indicator 17 - Application Priority Indicator 17 - Application Priority Indicator 18 - C Card Risk Management Data Object List 1 (CDOL1) 18 - 20 20 20 30 30 20 19 13 30 39 21 30 39 21 30 39 21 30 39 21 30 39 21 30 39 21 30 39 21 30 39 21 30 30 30 30 30 30 30 3 | | | |
| B1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported BYTE 2: b8 - EMV mode NOT supported A0 00 00 00 04 30 60 D0 56 11 11 11 11 11 11 11 11 11 11 11 11 11 | | | b2 - On device Cardholder verification NOT |
| BYTE 2: b8 - EMV mode NOT supported | | | |
| B4 | | | |
| 84 | | | - · · · |
| Secondary March Marc | 84 | Dedicated File (DF) Name | |
| SC | | , , | |
| 1 (CDOL1) 2A 02 9A 03 9C 01 9F 37 04 9F 35 0 9F 45 02 9F 4C 08 9F 34 03 9F 21 0 9F 7C 14 8D | | | |
| SP 45 02 9F 4C 08 9F 34 03 9F 21 0 9F 7C 14 | | | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| SD | | 1 (05021) | 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 |
| Section Content Counter Coun | | | |
| SE | 8D | , | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| List | | , , | |
| 94 Application File Locator (AFL) 9F 07 Application Usage Control 9F 08 Application Usage Control 9F 08 Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b3 - International services valid b3 - International services valid b3 - International services valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback al | 8E | l | |
| 9F 07 Application Usage Control PF C0 BYTE 1: b8 - Domestic cash trans. valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b3 - International services valid b1 - non-ATM terminals valid b7 - International cashback allowed b | 0.4 | | |
| BYTE 1: 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 b3 - International services valid b3 - International services valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback a | | | |
| b8 - Domestic cash trans. valid 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 b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cash | 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 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 b9 - International | | | = : : = :: |
| 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 allowe | | | |
| 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 | | | |
| b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed 9F 08 Application Version Number 9F 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 0F Issuer Action Code - Online 9F 10 Issuer Application Data [M/Chip Advance] 9F 11 Issuer Code Table Index 9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 31 20 20 20 20 20 20 20 20 20 - 'Maestro1' 9F 14 Counter 1 Lower Limit [Mastercard] 9F 17 Personal Identification Number (PIN) Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] | | | |
| 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 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 0F Issuer Action Code - Online 9F 10 Issuer Application Data [M/Chip Advance] 9F 11 Issuer Code Table Index 9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 31 20 20 20 20 20 20 20 20 20 20 20 20 20 | | | |
| BYTE 2: 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 0F Issuer Application Data [M/Chip Advance] 9F 10 Issuer Code Table Index 9F 11 Issuer Code Table Index 9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 31 20 20 20 20 20 20 20 20 20 20 20 20 20 | | | 1 |
| b7 - International cashback allowed 9F 08 | | | |
| 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 | | | b8 - Domestic cashback allowed |
| 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 | | | |
| Proprietary Data 9F 0D Issuer Action Code - Default 90 00 00 00 00 00 | | | |
| 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 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 | 25.25 | | 70.50.75.00.00 |
| 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 14 xx | | | |
| 9F 10 Issuer Application Data [M/Chip Advance] | | | |
| Advance | | | |
| 9F 11 Issuer Code Table Index 01 | 9F 10 | | |
| 9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 31 20 20 20 20 20 20 20 20 20 20 20 20 20 | OE 44 | - | |
| 9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 17 Personal Identification Number (PIN) 09 Try Counter 1 Upper Limit [Mastercard] 00 9F 23 Counter 1 Upper Limit [Mastercard] 00 | | | |
| 9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 17 Personal Identification Number (PIN) 09 Try Counter | 95 12 | Application Preferred Name | |
| 9F 17 Personal Identification Number (PIN) Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 00 | 9F 14 | Counter 1 Lower Limit [Mastercard] | |
| Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 00 | | | 09 |
| 9F 23 Counter 1 Upper Limit [Mastercard] 00 | 0 | | |
| | 9F 23 | | 00 |
| 9F 26 Application Cryptogram (AC) xx xx xx xx xx xx xx xx x x x x | 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 Cryptogram Information Data (CID) 80 | | i | 80 |
| 9F 36 Application Transaction Counter (ATC) xx xx * | | i | xx xx * |
| 9F 42 Application Currency Code 09 78 - EUR | | | |
| 9F 4D Transaction Log Entry 0B 0A | 9F 4Z | Application Currency Code | 09 78 - EUR |
| | | | |
| 36 02 9F 52 06 DF 3E 01 9F 21 03 9 | 9F 4D | Transaction Log Entry | |
| 7C 14 | 9F 4D | | 0B 0A 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F |

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 17 10 13 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00 C3 Card Issuer Action Code (Contact) -00 00 00 Decline [M/Chip Advance] 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] 05 28 - NLD C9 Accumulator 1 Currency Code 09 78 - EUR [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] 09 78 00 00 00 09 78 00 00 00 09 78 D1 Accumulator 1 Currency Conversion 00 00 00 09 78 00 00 00 09 78 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]

DF 2F

DF 30

DF 35

DF 37

DF 3C

DF 3D

DF 3F

DF 40

DF 41

Advance]

Advance]

Advance]

Advance]

[M/Chip Advance]

[M/Chip Advance]

Data Card v5.x Tag Element name 00 DF 1E Counter 2 Control (Contactless) [M/Chip Advance1 DF 1F Counter 2 Lower Limit [Mastercard] 00 00 DF 21 Counter 2 Upper Limit [Mastercard] DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 DF 23 MTA CVM (Contactless) [M/Chip Advance] MTA Currency Code [M/Chip Advance] 09 78 DF 24 DF 25 MTA NoCVM (Contact) [M/Chip 00 00 00 00 00 Advance1 **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] 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 Accumulator 2 CVR Dependency Data DF 2B (Contactless) [M/Chip Advance] 00 00 00 Counter 1 CVR Dependency Data DF₂C (Contact) [M/Chip Advance] 00 00 00 Counter 1 CVR Dependency Data DF 2D (Contactless) [M/Chip Advance] Counter 2 CVR Dependency Data 00 00 00 DF 2E

00 00 00

01

00

00

00

00

00

00

20

4.6.3 Contact: CVM List - Maestro Debit, AID A000000043060D0562222

(Contact) [M/Chip Advance]

Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]

Interface Enabling Switch [M/Chip

Security Limits Status (Contactless)

CVR Issuer Discretionary Data (Contact) [M/Chip Advance]

CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]

Read Record Filter (Contact) [M/Chip

Read Record Filter (Contactless)

DS Management Control [M/Chip

Security Limits Status Common [M/Chip

| 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 |

^{*} Tag value changes with card usage

4.6.4 Contact: Application Tag data, AID A000000043060D0562222

| Application Label | Tag | Element name | Data Card v5.x |
|--|-------|---------------------------------------|---------------------------------------|
| 20 20 20 20 - 1/MAESTROZ | | | |
| Track 2 Equivalent Data | 30 | Application Label | |
| SA | 57 | Track 2 Equivalent Data | |
| SF 20 | • | Track 2 Equivalent Bata | 01 48 35 94 90 OF |
| 13 74 20 43 61 72 64 20 30 36 20 20 20 20 20 20 20 20 20 20 20 20 20 | 5A | * * | 67 99 99 89 00 00 02 02 8F |
| SF 24 Application Expiration Date 25 12 31 | 5F 20 | Cardholder Name | 55 53 41 20 44 65 62 69 74 2F 54 65 |
| SF 24 Application Expiration Date 25 12 31 | | | |
| SF 25 | 5F 24 | Application Expiration Date | |
| SF 28 | | | xx xx xx * |
| SF 2D | | • • | 05 28 - NLD |
| SF 30 Service Code 02 20 | | | |
| SF 34 Application PAN Sequence Number 32 18 0 18 0 18 0 18 0 19 19 19 19 19 19 19 | | | |
| B 2 | | | 32 |
| 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 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 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 mode NOT supported BYTE 2: b8 - Domestic cash trans. Valid b7 - Intl' cash transactions valid b6 - Domestic cash trans. Valid b7 - Intl' cash transactions valid b6 - Domestic cash trans. Valid b7 - Intl' cash transactions valid b6 - Domestic cash trans. Valid b7 - Intl' cash transactions valid b7 - International services valid b7 - International cashback allowed b7 - International cashback | | | 18 00 |
| b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported wince 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 BYTE 2: b8 - EMV mode NOT supported BYTE 2: b8 - Development 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 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 9F 4C 08 20 9F 4C 08 9F 37 04 9F 35 01 9F 37 04 9F 4C 08 20 9F 30 00 | 02 | Application interesting a restite | |
| 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 BYTE 2: b8 - EMV mode NOT supported BYTE 2: b8 - EMV mode NOT supported DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported BYTE 2: b8 - EMV mode NOT supported DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported DDA / GEN AC NOT | | | b7 - Offline SDA NOT 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 BYTE 2: b8 - EMV mode NOT supported BYTE 3: b8 - DM of the properties of t | | | |
| 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 BYTE 2: b8 - EMV mode NOT supported BYTE 3: b8 - DOM SI 0: 56 - DE ST 3: 04 - DE ST 3: | | | |
| 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 - O | | | |
| b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported BYTE 3: b8 - Day and a GO DO | | | |
| Supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported BYTE 2: b8 - EMV mode NOT supported A0 00 00 00 04 30 60 D0 56 22 22 | | | |
| B1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported BYTE 2: a | | | |
| BYTE 2: | | | |
| 84 Dedicated File (DF) Name | | | |
| 87 | | | b8 - EMV mode NOT supported |
| SC | 84 | Dedicated File (DF) Name | A0 00 00 00 04 30 60 D0 56 22 22 |
| 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 | 87 | Application Priority Indicator | 02 |
| SD | 8C | Card Risk Management Data Object List | |
| SD | | 1 (CDOL1) | |
| SD | | | |
| 2 (CDOL2) 2 (CDOL2) 2 (CDOL2) | 9D | Card Rick Management Data Object List | |
| SE | 00 | , | 31 011 011 02 33 03 31 37 04 31 40 00 |
| Section Color Co | 0E | | 00 00 00 00 00 00 00 41 03 02 03 |
| 94 | OE | · · · · · · · · · · · · · · · · · · · | |
| 94 Application File Locator (AFL) 9F 07 Application Usage Control 9F 07 Application Usage Control 9F 08 Application Version Number 9F 08 Application Version Registered Proprietary Data 9F 08 Issuer Action Code - Default 9F 08 Issuer Action Code - Denial 08 01 01 00 PF CO BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b6 - Domestic goods valid b6 - Domestic services valid b6 - Domestic services valid b6 - Domestic services valid b7 - International services valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Inter | 0.4 | | |
| 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 | | | |
| 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 b1 - non-ATM valid b1 - non-ATM terminals valid b1 - non-ATM terminals valid b2 - ATMs valid b1 - non-ATM terminals valid b3 - International cashback allowed b1 - non-ATM terminals valid b2 - ATMs valid b1 - non-ATM terminals valid b2 - ATMs valid b1 - non-ATM terminals valid b3 - International cashback allowed b7 - International cashback allowed | | | |
| 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 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 00 00 00 00 00 9F 0B OD 00 00 00 00 | 91 07 | Application Usage Control | |
| b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed | | | |
| b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allo | | | b7 - Int'l cash transactions 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 | | | |
| b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International c | | | |
| b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International 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 00 00 00 00 00 | | | |
| b1 - non-ATM terminals valid BYTE 2: 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 00 00 00 00 00 | | | |
| BYTE 2: 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 BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed 00 02 00 01 01 01 B0 50 BC 88 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 b8 - Domestic cashback allowed b7 - International cashback allowed 00 02 00 01 01 01 B0 50 BC 88 00 9F 0E Issuer Action Code - Denial | | | |
| 9F 08 Application Version Number 00 02 9F 0A Application Selection Registered 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 0A Application Selection Registered 00 01 01 01 Proprietary Data B0 50 BC 88 00 9F 0E Issuer Action Code - Default 00 00 00 00 00 | | | |
| 9F 0A Application Selection Registered Proprietary Data 9F 0D Issuer Action Code - Default B0 50 BC 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 | 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 0A | Application Selection Registered | 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 0E Issuer Action Code - Denial 00 00 00 00 00 | 9F 0D | | B0 50 BC 88 00 |
| | 9F 0E | | 00 00 00 00 00 |
| | 9F 0F | | B0 70 BC 98 00 |

Tag Element name Data Card v5.x xx 14 xx 9F 10 Issuer Application Data [M/Chip xx xx xx xx xx ** Advance1 9F 11 Issuer Code Table Index 4D 61 65 73 74 72 6F 32 20 20 20 20 9F 12 **Application Preferred Name** 20 20 20 - 'Maestro2' 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 09 78 - EUR 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 17 10 13 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 C3 Card Issuer Action Code (Contact) -Decline [M/Chip Advance] C4 Card Issuer Action Code (Contact) -7F 50 00 Default [M/Chip Advance] 3F FB 00 C5 Card Issuer Action Code (Contact) -Online [M/Chip Advance] 03 C6 PIN Try Limit [M/Chip Advance] CDOL1 Related Data Length 42 C7 [Mastercard] C8 CRM Country Code [Mastercard] 05 28 - NLD 09 78 - EUR C9 Accumulator 1 Currency Code [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 CD Card Issuer Action Code (Contactless) -Default [M/Chip Advance] 00 00 00 CE Card Issuer Action Code (Contactless) -Online [M/Chip Advance] 00 00 00 CF Card Issuer Action Code (Contactless) -Decline [M/Chip Advance] Accumulator 1 Currency Conversion 09 78 00 00 00 09 78 00 00 00 09 78 D1 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] 00 10 D6 Default ARPC Response Code [M/Chip Advance1 D7 Application Control [M/Chip Advance] 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 Advance] Accumulator 1 Control (Contact) C1 DF 11 [M/Chip Advance] Accumulator 1 Control (Contactless) 00 DF 12 [M/Chip Advance]

Tag Data Card v5.x Element name 00 DF 14 Accumulator 2 Control (Contact) [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] 00 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] 09 78 - EUR 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 | 00 | |
| | Advance] | | |
| DF 40 | Read Record Filter (Contactless) | 00 | |
| | [M/Chip Advance] | | |
| DF 41 | DS Management Control [M/Chip | 20 | |
| | 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 A0000000041010

| Cardho | Cardholder Verification Method List ('4103 4203 5E03 5F03 0000') | | | |
|--------|--|----------------------------|-----------------|--|
| CVM | Verification Method | Conditions | If unsuccessful | |
| 1 | Offline Plaintext PIN | Terminal supports CVM type | Next CVM | |
| 2 | Online PIN | Terminal supports CVM type | Next CVM | |
| 3 | Signature (paper) | Terminal supports CVM type | Next CVM | |
| 4 | No CVM required | Terminal supports CVM type | Fail | |
| 5 | Fail CVM Processing | Always | Fail | |

4.7.2 Contact: Application Tag data, AID 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 OF |
| 5A | Application Primary Account Number | 54 13 33 00 89 02 00 60 |
| | (PAN) | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 65 62 69 74 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 30 37 20 20 |
| | | 20 20 - 'USA DEBIT/Test Card 07' |
| 5F 24 | Application Expiration Date | 25 12 31 |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 26 - GBR |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 11 |

Card v5.x Tag Element name Data 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 A0 00 00 00 04 10 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 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 8E Cardholder Verification Method (CVM) 00 00 00 00 00 00 00 00 41 03 42 03 5E 03 5F 03 00 00 08 01 01 00 94 Application File Locator (AFL) 08 01 01 00 Application File Locator (AFL) 94 9F 07 FF 00 **Application Usage Control** BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed 00 02 9F 08 **Application Version Number** 00 01 01 02 9F 0A Application Selection Registered **Proprietary Data** B0 50 BC 88 00 9F 0D Issuer Action Code - Default 9F 0E 00 00 00 00 00 Issuer Action Code - Denial B0 70 BC 98 00 9F 0F Issuer Action Code - Online 9F 10 Issuer Application Data [M/Chip xx 10 xx ** Advance1 01 9F 11 Issuer Code Table Index 4D 61 73 74 65 72 63 61 72 64 20 20 9F 12 **Application Preferred Name** 20 20 20 - 'Mastercard' 9F 14 Counter 1 Lower Limit [Mastercard] 00 09 9F 17 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 * 9F 27 Cryptogram Information Data (CID) 80 Application Transaction Counter (ATC) xx xx * 9F 36 08 26 - GBP **Application Currency Code** 9F 42 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

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 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] 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 84 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]

Data Card v5.x Tag Element name 00 DF 1E Counter 2 Control (Contactless) [M/Chip Advance1 DF 1F Counter 2 Lower Limit [Mastercard] 00 00 DF 21 Counter 2 Upper Limit [Mastercard] DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 DF 23 MTA CVM (Contactless) [M/Chip Advance] MTA Currency Code [M/Chip Advance] 08 26 DF 24 DF 25 MTA NoCVM (Contact) [M/Chip 00 00 00 00 00 Advance1 **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] 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 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] 00 00 00 Counter 1 CVR Dependency Data DF 2D (Contactless) [M/Chip Advance] Counter 2 CVR Dependency Data 00 00 00 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 Advance] **DF 35** Security Limits Status (Contactless) 00 [M/Chip Advance] **DF 37** Security Limits Status Common [M/Chip 00 Advance] 00 DF 3C **CVR Issuer Discretionary Data** (Contact) [M/Chip Advance] 00 DF 3D CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 00 DF 3F Read Record Filter (Contact) [M/Chip Advance] Read Record Filter (Contactless) 00 DF 40 [M/Chip Advance] 20 DF 41 DS Management Control [M/Chip 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 |

^{*} Tag value changes with card usage

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 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 (PAN) | 67 99 99 89 00 00 02 00 05 1F | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 65 62 69 74 2F 54 65 | |
| | | 73 74 20 43 61 72 64 20 30 37 20 20 20 20 - 'USA DEBIT/Test Card 07' | |
| 5F 24 | Application Expiration Date | 25 12 31 | |
| 5F 25 | Application Effective Date | xx xx xx * | |
| 5F 28 | Issuer Country Code | 08 26 - GBR | |
| 5F 2D | Language Preference | 65 6E - 'en' (English) | |
| 5F 30 | Service Code | 02 20 | |
| 5F 34 | Application PAN Sequence Number | 12 | |
| 82 | Application Interchange Profile | BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported | |
| 84 | Dedicated File (DF) Name | A0 00 00 00 04 30 60 | |
| 87 | | 02 | |
| 8C | Application Priority Indicator Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F | |
| 80 | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 | |
| | T (CDOLT) | 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 | |
| 8D | Card Risk Management Data Object List 2 (CDOL2) | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 | |
| 8E | Cardholder Verification Method (CVM) List | 00 00 00 00 00 00 00 00 41 03 42 03 00 00 00 00 | |
| 94 | Application File Locator (AFL) | 08 01 02 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 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 - Derial | 00 00 00 00 00 | |
| 9F 0F | Issuer Action Code - Definal | B0 70 BC 98 00 | |
| 31 01 | 133461 ACTION COME & CHIMINE | | |

Tag Element name Data Card v5.x xx 14 xx 9F 10 Issuer Application Data [M/Chip xx xx xx xx xx ** Advance1 9F 11 Issuer Code Table Index 4D 61 65 73 74 72 6F 20 20 20 20 20 9F 12 **Application Preferred Name** 20 20 20 - 'Maestro' 9F 14 Counter 1 Lower Limit [Mastercard] 00 09 9F 17 Personal Identification Number (PIN) Try Counter Counter 1 Upper Limit [Mastercard] 00 9F 23 Application Cryptogram (AC) 9F 26 80 9F 27 Cryptogram Information Data (CID) Application Transaction Counter (ATC) xx xx * 9F 36 08 26 - GBP 9F 42 **Application Currency Code** 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 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) -7F 50 00 Default [M/Chip Advance] 3F FB 00 C5 Card Issuer Action Code (Contact) -Online [M/Chip Advance] 09 C6 PIN Try Limit [M/Chip Advance] CDOL1 Related Data Length 42 C7 [Mastercard] C8 CRM Country Code [Mastercard] 08 26 - GBR 08 26 - GBP C9 Accumulator 1 Currency Code [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 CD Card Issuer Action Code (Contactless) -Default [M/Chip Advance] 00 00 00 CE Card Issuer Action Code (Contactless) -Online [M/Chip Advance] 00 00 00 CF Card Issuer Action Code (Contactless) -Decline [M/Chip Advance] Accumulator 1 Currency Conversion 08 26 00 00 00 08 26 00 00 00 08 26 D1 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 86 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] 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 Security Limits Status (Contact) [M/Chip DF 02 Advance] Accumulator 1 Control (Contact) C1 DF 11 [M/Chip Advance] Accumulator 1 Control (Contactless) 00 DF 12 [M/Chip Advance]

Data Card v5.x Tag Element name 00 DF 14 Accumulator 2 Control (Contact) [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] 00 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 08 26 - GBP DF 24 MTA Currency Code [M/Chip Advance] 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

4.8 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

| Cardho | 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 |
| | | 14 83 59 49 00 0F |
| 5A | Application Primary Account Number | 54 13 33 00 89 09 90 07 |
| | (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 | 31 |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' |

| Record R | Tag | Element name | Data Card v5.x |
|--|----------|------------------------------------|--|
| BYTE 1: | | | 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 BYTE 2: b8 - EMV mode NOT supported BYTE 2: b9 - Card Risk Management Data Object List 1 (CDOL1) | | | |
| 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 b7 - EMV mode NOT supported b7 - Application Priority Indicator 01 | | | |
| B3 - Issuer authentication NOT supported via External Auth command 12 - On device Cardholder verification NOT supported 11 - Combined DDA / GEN AC NOT supported 11 - Combined DDA / GEN AC NOT supported 12 - On device Cardholder verification NOT supported 13 - Combined DDA / GEN AC NOT supported 14 - Combined DDA / GEN AC NOT supported 15 - Combined DDA / GEN AC NOT supported Machined DDA / GEN AC NOT supported Machined DDA / GEN AC NOT supported DDA / GEN AC NOT supported Machined DDA / GEN AC NOT supported DDA / GEN AC NOT suppo | | | |
| External Auth command | | | |
| Supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b3 - EMV mode NOT supported BYTE 2: Application Priority Indicator O1 | | | • • |
| 84 Dedicated File (DF) Name | | | b2 - On device Cardholder verification NOT |
| BYTE 2: B8 - EMV mode NOT supported B7 | | | '' |
| B4 | | | |
| B4 | | | - · · · |
| 87 | 84 | Dedicated File (DF) Name | |
| SC | | , , | |
| 1 (CDOL1) 2A 02 9R 03 9C 01 9F 37 04 9F 35 01 9F 7C 14 8D Card Risk Management Data Object List 2 (CDOL2) 8E Cardholder Verification Method (CVM) List 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 9F 34 03 9F 21 03 1F 03 00 00 94 Application File Locator (AFL) 96 07 Application Usage Control 8F C Cardholder Verification Method (CVM) List 16 03 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 95 07 Application Usage Control 8F C Cardholder Verification Method (CVM) List 16 03 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 96 07 Int I cash transactions valid b6 Domestic cash trans. valid b6 Domestic cash trans. valid b6 Domestic cash trans. valid b6 Domestic services valid b6 Domestic cashback allowed b7 International services valid b1 non-ATM terminals valid BYTE 2: b8 Domestic cashback allowed b7 International cashback | | | |
| 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 | 00 | | |
| Section Card Risk Management Data Object List 2 (CDOL2) | | (OBOLI) | 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 |
| 2 (CDOL2) | | | |
| SE | 8D | | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| List | | | |
| Application File Locator (AFL) | 8E | | |
| Section Sect | 0.1 | | |
| BYTE 1: | | i | ** ** ** |
| b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b6 - Domestic goods valid b6 - Domestic services 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 b8 - Domestic cashback allowed b8 - Domestic cashback allowed b8 - Domestic cashback allowed b9 - Domestic cashbac | 9F 07 | Application Usage Control | |
| b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b5 - International 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 - Internatio | | | - · · - · · |
| 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 cashback allowed b7 - | | | |
| b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b1 - International cashback allowed b7 - Internation | | | |
| b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International | | | |
| b2 - ATMs valid b1 - non-ATM terminals valid BYTE b8 - Domestic cashback allowed b7 - International cashback allowed b8 - Domestic cashback allowed b7 - International cashback allowed b8 - Domestic cashback allowed b7 - International cashback allowed b8 - Domestic cashback allowed b9 - Domestic cashback allowed b9 - Domestic cashback allowed b9 - Domestic | | | |
| 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 5 9 8 00 | | | |
| B8 - Domestic cashback allowed b7 - International cashback allowed b8 - International cashback allowed b7 - International cashback allowed b8 00 00 00 00 00 00 00 | | | |
| 9F 08 Application Version Number 00 02 9F 0D Issuer Action Code - Default B0 50 9C 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 9C 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx | | | |
| 9F 0D Issuer Action Code - Default B0 50 9C 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 9C 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx | | | b7 - International cashback allowed |
| 9F 0E Issuer Action Code - Denial 00 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 9C 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx | 9F 08 | • • | 00 02 |
| 9F 0F Issuer Action Code - Online B0 70 9C 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx | 9F 0D | | |
| 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx | | | |
| Advance] | | | |
| 9F 11 | 9F 10 | l | |
| 9F 12 Application Preferred Name 55 53 20 43 68 65 63 6B 69 6E 67 20 20 20 20 - 'US Checking' 9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 17 Personal Identification Number (PIN) Try Counter 03 | <u> </u> | 2 | |
| 20 20 20 20 - 'US Checking' 9F 14 | | | |
| 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 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 | 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 | OE 4.4 | Countar 1 Lower Limit [Mostorgard] | - |
| 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 | 9F 1/ | | |
| 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 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 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 | | 11 0 1 | |
| 9F 42 Application Currency Code 08 40 - USD 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | ` , | |
| 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | , , , | |
| 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 7C 14 | J. 41 | Transaction Log Format | |
| | | | 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]

Data Card v5.x Tag Element name 00 DF 1E Counter 2 Control (Contactless) [M/Chip Advance1 DF 1F Counter 2 Lower Limit [Mastercard] 00 00 DF 21 Counter 2 Upper Limit [Mastercard] DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 DF 23 MTA CVM (Contactless) [M/Chip Advance] MTA Currency Code [M/Chip Advance] 08 40 DF 24 DF 25 MTA NoCVM (Contact) [M/Chip 00 00 00 00 00 Advance1 **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] 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 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] 00 00 00 Counter 1 CVR Dependency Data DF 2D (Contactless) [M/Chip Advance] Counter 2 CVR Dependency Data 00 00 00 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 Advance] **DF 35** Security Limits Status (Contactless) 00 [M/Chip Advance] **DF 37** Security Limits Status Common [M/Chip 00 Advance] 00 DF 3C **CVR Issuer Discretionary Data** (Contact) [M/Chip Advance] 00 DF 3D **CVR Issuer Discretionary Data** (Contactless) [M/Chip Advance] 00 DF 3F Read Record Filter (Contact) [M/Chip Advance] Read Record Filter (Contactless) 00 DF 40 [M/Chip Advance] 20 DF 41 DS Management Control [M/Chip Advance]

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

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

^{*} Tag value changes with card usage

| 4 | Fail CVM Processing | Always | Fail |
|---|---------------------|--------|------|
|---|---------------------|--------|------|

4.8.4 Contact: Application Tag data, AID A0000000042203D0562222

| Tag | Element name | Data Card v5.x |
|-------|---------------------------------------|---|
| 42 | Issuer Identification Number (IIN) | 54 13 33 |
| 50 | Application Label | 55 53 20 53 41 56 49 4E 47 53 20 20 |
| | • • | 20 20 20 20 - 'US SAVINGS' |
| 57 | Track 2 Equivalent Data | 54 13 33 00 89 09 90 15 D2 51 22 20 |
| | - | 14 83 59 49 00 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 |
| O4 | Application Funination Data | 20 20 - 'USA DEBIT/Test Card 08' |
| 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 | 32 |
| 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 22 22 |
| 87 | | 02 |
| 8C | Application Priority Indicator | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| 0C | Card Risk Management Data Object List | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| | 1 (CDOL1) | 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 |
| | | 9F 7C 14 |
| 8D | Card Risk Management Data Object List | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| | 2 (CDOL2) | |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 05 42 03 |
| | List | 1F 03 00 00 |
| 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 |
| | | 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 |
| | | ı |

Tag Card v5.x Element name Data 00 00 00 00 00 9F 0E Issuer Action Code - Denial 9F 0F Issuer Action Code - Online B0 70 9C 98 00 9F 10 Issuer Application Data [M/Chip xx 10 xx ** Advance] 9F 11 Issuer Code Table Index 55 53 20 53 61 76 69 6E 67 73 20 20 9F 12 **Application Preferred Name** 20 20 20 - 'US Savings' 9F 14 Counter 1 Lower Limit [Mastercard] 03 9F 17 Personal Identification Number (PIN) Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) **xx xx xx xx xx xx xx** * 80 9F 27 Cryptogram Information Data (CID) xx xx * 9F 36 Application Transaction Counter (ATC) 08 40 - USD 9F 42 **Application Currency Code** 9F 4D Transaction Log Entry 0B 0A 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 9F 4F **Transaction Log Format** 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14 9F 7E 04 10 0B 14 00 01 00 00 50 17 79 00 Application Life Cycle Data [Mastercard] A0 00 00 00 04 22 03 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 C3 Card Issuer Action Code (Contact) -00 00 00 Decline [M/Chip Advance] C4 06 00 00 Card Issuer Action Code (Contact) -Default [M/Chip Advance] 06 00 00 Card Issuer Action Code (Contact) -C5 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 C9 Accumulator 1 Currency Code 08 40 - USD [Mastercard] CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] Card Issuer Action Code (Contactless) -00 00 00 CD 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 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] 80 00 80 00 C6 02 00 10 D6 Default ARPC Response Code [M/Chip Advance] 00 00 00 00 00 00 D7 Application Control [M/Chip Advance] Application File Locator (Contactless) D9 00 00 00 00 00 00 00 00 DE Log Data Table [M/Chip Advance] DF 02 Security Limits Status (Contact) [M/Chip 00 Advance1 DF 11 Accumulator 1 Control (Contact) C1 [M/Chip Advance]

Data Card v5.x Tag Element name 00 DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] **DF 14** Accumulator 2 Control (Contact) 00 [M/Chip Advance] Accumulator 2 Control (Contactless) **DF 15** 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] DF 19 Accumulator 2 Upper Limit [Mastercard] 00 00 00 00 00 00 C1 DF 1A Counter 1 Control (Contact) [M/Chip Advance1 00 DF 1B Counter 1 Control (Contactless) [M/Chip Advance] 00 DF 1D Counter 2 Control (Contact) [M/Chip Advance] DF 1E Counter 2 Control (Contactless) [M/Chip 00 Advance1 00 DF 1F Counter 2 Lower Limit [Mastercard] 00 DF 21 Counter 2 Upper Limit [Mastercard] DF 22 00 00 00 00 00 00 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 DF 23 MTA CVM (Contactless) [M/Chip Advance1 MTA Currency Code [M/Chip Advance] 08 40 DF 24 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** Number Of Days Offline Limit [M/Chip 00 00 **DF 27** Advance1 Accumulator 1 CVR Dependency Data 00 00 00 **DF 28** (Contact) [M/Chip Advance] Accumulator 1 CVR Dependency Data 00 00 00 **DF 29** (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 DF₂C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 Counter 1 CVR Dependency Data DF 2D (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 Advance] 00 Security Limits Status (Contactless) **DF 35** [M/Chip Advance] Security Limits Status Common [M/Chip 00 **DF 37** Advancel DF 3C **CVR Issuer Discretionary Data** 00 (Contact) [M/Chip Advance]

| Tag | Element name | Data | Card v5.x |
|-------|--------------------------------------|------|-----------|
| 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] | | |

^{*} 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 A0000000041010

| Cardho | Cardholder Verification Method List ('4103 4203 5E03 1F00 0000') | | | |
|--------|--|----------------------------|-----------------|--|
| CVM | Verification Method | Conditions | If unsuccessful | |
| 1 | Offline Plaintext PIN | Terminal supports CVM type | Next CVM | |
| 2 | Online PIN | Terminal supports CVM type | Next CVM | |
| 3 | Signature (paper) | Terminal supports CVM type | Next CVM | |
| 4 | No CVM required | Terminal supports CVM type | Fail | |
| 5 | Fail CVM Processing | Always | Fail | |

4.9.2 Contact: Application Tag data, AID A0000000041010

| Tag | Element name | Data Card v5.x |
|-------|------------------------------------|-------------------------------------|
| 50 | Application Label | 4D 41 53 54 45 52 43 41 52 44 20 20 |
| | | 20 20 20 20 - 'MASTERCARD' |
| 57 | Track 2 Equivalent Data | 54 13 33 00 89 02 00 60 D2 51 22 01 |
| | • | 14 83 59 49 00 OF |
| 5A | Application Primary Account Number | 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 |

Page 255

| 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 10 10 |
| 87 | Application Priority Indicator | 01 |
| 8C | Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| | | 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 |
| 8D | Card Pick Management Data Object List | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| טט | Card Risk Management Data Object List 2 (CDOL2) | 12 311 311 32 33 33 31 37 34 3E 40 00 |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 41 03 42 03 |
| 0 | List | 5E 03 1F 00 00 00 |
| 94 | Application File Locator (AFL) | 08 01 01 00 |
| 94 | Application File Locator (AFL) | 08 01 01 00 |
| 9F 07 | Application Usage Control | FF 00 |
| 31 01 | Application osage control | BYTE 1: |
| | | b8 - Domestic cash trans. valid |
| | | b7 - Int'l cash transactions valid |
| | | b6 - Domestic goods valid |
| | | b5 - International goods valid |
| | | b4 - Domestic services valid |
| | | b3 - International services valid b2 - ATMs valid |
| | | b1 - non-ATM terminals valid |
| | | BYTE 2: |
| | | b8 - Domestic cashback NOT allowed |
| | | b7 - International cashback NOT allowed |
| 9F 08 | Application Version Number | 00 02 |
| 9F 0D | Issuer Action Code - Default | B0 50 BC 88 00 |
| 9F 0E | Issuer Action Code - Denial | 00 00 00 00 00 |
| 9F 0F | Issuer Action Code - Online | B0 70 BC 98 00 |
| 9F 10 | Issuer Application Data [M/Chip | xx 14 xx |
| | 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 |
| | 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 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] 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] 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 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 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]

Data Card v5.x Tag Element name 00 DF 1E Counter 2 Control (Contactless) [M/Chip Advance1 DF 1F Counter 2 Lower Limit [Mastercard] 00 00 DF 21 Counter 2 Upper Limit [Mastercard] DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 DF 23 MTA CVM (Contactless) [M/Chip Advance] 08 40 **DF 24** MTA Currency Code [M/Chip Advance] DF 25 MTA NoCVM (Contact) [M/Chip 00 00 00 00 00 Advance1 **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] 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 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] 00 00 00 Counter 1 CVR Dependency Data DF 2D (Contactless) [M/Chip Advance] Counter 2 CVR Dependency Data 00 00 00 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 Advance] **DF 35** Security Limits Status (Contactless) 00 [M/Chip Advance] **DF 37** Security Limits Status Common [M/Chip 00 Advance] 00 DF 3C **CVR Issuer Discretionary Data** (Contact) [M/Chip Advance] 00 DF 3D **CVR Issuer Discretionary Data** (Contactless) [M/Chip Advance] 00 DF 3F Read Record Filter (Contact) [M/Chip Advance] Read Record Filter (Contactless) 00 DF 40 [M/Chip Advance] 20 DF 41 DS Management Control [M/Chip Advance]

4.9.3 Contact: CVM List - Maestro debit, AID A0000000043060

| 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 |

^{*} Tag value changes with card usage

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 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 (PAN) | 67 99 99 89 00 00 02 00 05 1F |
| 5F 20 | Cardholder Name | 55 53 41 20 44 65 62 69 74 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 30 39 20 20 |
| FF 0.4 | Application Fundation Date | 20 20 - 'USA DEBIT/Test Card 09' |
| 5F 24 | Application Expiration Date | xx xx xx * |
| 5F 25 | Application Effective Date | 08 40 - USA |
| 5F 28 | Issuer Country Code | 65 6E - 'en' (English) |
| 5F 2D | Language Preference | 02 20 |
| 5F 30 | Service Code | 12 |
| 5F 34 5F 55 | Application PAN Sequence Number | 55 53 - 'US' |
| | Issuer Country Code (alpha2 format) Application Interchange Profile | 18 00 |
| 82 | Application interchange Profile | BYTE 1: |
| | | b7 - Offline SDA NOT supported |
| | | b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported via |
| | | External Auth command b2 - On device Cardholder verification NOT |
| | | supported |
| | | b1 - Combined DDA / GEN AC NOT supported |
| | | BYTE 2: |
| | | b8 - EMV mode NOT supported |
| 84 | Dedicated File (DF) Name | A0 00 00 00 04 30 60 |
| 87 | Application Priority Indicator | 02 |
| 8C | Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 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 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 41 03 02 03 |
| - | List | 00 00 00 00 00 |
| 94 | Application File Locator (AFL) | 08 01 02 00 |
| 94 | Application File Locator (AFL) | 08 01 02 00 |
| 9F 07 | Application Usage Control | FF CO |
| | | BYTE 1: |
| | | b8 - Domestic cash trans. valid |
| | | b7 - Int'l cash transactions valid |
| | | b6 - Domestic goods valid b5 - International goods valid |
| | | b4 - Domestic services valid |
| | | b3 - International services valid |
| | | b2 - ATMs valid |
| | | b1 - non-ATM terminals valid |
| | | BYTE 2: |
| | | b8 - Domestic cashback allowed |
| 0E 09 | Application Version Number | b7 - International cashback allowed |
| 9F 08 9F 0D | Application Version Number Issuer Action Code - Default | B0 50 BC 88 00 |
| 9F 0E | Issuer Action Code - Deriaul | 00 00 00 00 00 |
| 9F 0E | Issuer Action Code - Denial | B0 70 BC 98 00 |
| 9F U F | issuel Action Code - Online | 20 70 20 30 00 |

Page 259

Card v5.x Tag 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 4D 61 65 73 74 72 6F 20 20 20 20 20 9F 12 **Application Preferred Name** 20 20 20 - '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) -1F 50 00 Default [M/Chip Advance] 3F FB 00 C5 Card Issuer Action Code (Contact) -Online [M/Chip Advance] 03 C6 PIN Try Limit [M/Chip Advance] 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 84 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]

Card v5.x Data Tag Element name 00 DF 3F Read Record Filter (Contact) [M/Chip Advance] DF 40 Read Record Filter (Contactless) 00 [M/Chip Advance] 20 DF 41 DS Management Control [M/Chip Advance]

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

| 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 20 |
| | | 20 20 20 20 - 'US 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 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 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 42 03 |
| | List | 1F 03 00 00 00 00 |
| | • | |

Page 262

^{*} Tag value changes with card usage

| Tag | Element name | Data Card v5.x |
|-------|--|--|
| 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 |
| 9F 10 | Issuer Application Data [M/Chip | xx 10 xx xx xx xx xx xx xx xx xx |
| | Advance] | xx xx xx xx xx * |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 12 | Application Preferred Name | 55 53 20 4D 61 65 73 74 72 6F 20 20 |
| | | 20 20 20 20 - 'US Maestro' |
| 9F 14 | Counter 1 Lower Limit [Mastercard] | 00 |
| 9F 17 | Personal Identification Number (PIN) | 03 |
| | Try Counter | |
| 9F 23 | Counter 1 Upper Limit [Mastercard] | 00 |
| 9F 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 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 |
| 9F 7E | Application Life Cycle Data [Mastercard] | 04 10 0B 14 00 01 00 00 50 17 79 00 |
| | | A0 00 00 00 04 30 60 00 00 00 00 00 |
| | | 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| C3 | Card Issuer Action Code (Contact) - | 00 00 00 |
| 03 | Decline [M/Chip Advance] | |
| C4 | Card Issuer Action Code (Contact) - | 06 50 00 |
| 04 | Default [M/Chip Advance] | |
| C5 | Card Issuer Action Code (Contact) - | 06 FB 00 |
| | 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) - | 06 50 00 |
| | Default [M/Chip Advance] | |
| CE | Card Issuer Action Code (Contactless) - | 06 FB 00 |
| | Online [M/Chip Advance] | |

Card v5.x Tag Element name Data 00 00 00 CF 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 80 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] 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 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) C1 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 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 C1 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] Counter 1 CVR Dependency Data DF 2D 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] DF 30 01 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** Advance1 00 **CVR Issuer Discretionary Data** DF 3C (Contact) [M/Chip Advance] 00 DF 3D **CVR Issuer Discretionary Data** (Contactless) [M/Chip Advance] 00 Read Record Filter (Contact) [M/Chip DF 3F Advance1 DF 40 Read Record Filter (Contactless) 00 [M/Chip Advance] 20 **DF 41** DS Management Control [M/Chip Advance]

4.10 Test Card 10 - Mastercard CO, Contact, 1-AID (US Maestro), English, USA, USD

A contact-only, single-AID Mastercard U.S. Maestro debit card with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

4.10.1 Contact: CVM List - U.S. Maestro, AID A0000000043060

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

4.10.2 Contact: Application Tag data, AID 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 | |

^{*} Tag value changes with card usage

Element name Data Tag Card v6.x 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 30 20 20 20 20 - 'USA DEBIT/Test Card 10' 5F 24 25 12 31 **Application Expiration Date** Application Effective Date xx xx xx * 5F 25 5F 28 **Issuer Country Code** 08 40 - USA 65 6E - 'en' (English) 5F 2D Language Preference 02 20 5F 30 Service Code 5F 34 Application PAN Sequence Number 13 55 53 - 'US' 5F 55 Issuer Country Code (alpha2 format) 18 00 82 Application Interchange Profile [M/Chip, BYTE 1: PayPass] 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 A0 00 00 00 04 22 03 84 Dedicated File (DF) Name Application Priority Indicator 01 87 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 45 02 9F 4C 08 9F 34 03 8D 0A 8A 02 95 05 9F 37 04 9F 4C 08 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 8F Certification Authority Public Key Index FΑ 18 89 B9 97 E6 FC E8 4B 4A E7 AB 87 90 Issuer Public Key Certificate 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 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 OC 1E F3 BB 9D 1D 75 AO 2F AA 9C 81 4A FC 58 92 Issuer Public Key Remainder D3 52 41 07 08 02 04 01 18 01 01 00 20 01 01 00 Application File Locator (AFL) 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** B0 50 9C 88 00 9F 0D Issuer Action Code - Default

Card v6.x Tag Element name Data 00 00 00 00 00 9F 0E Issuer Action Code - Denial Issuer Action Code - Online 9F 0F B0 70 9C 98 00 9F 10 Issuer Application Data [M/Chip 4] xx xx xx xx xx xx * 9F 11 Issuer Code Table Index 9F 12 Application Preferred Name 55 53 20 4D 61 65 73 74 72 6F - 'US Maestro' 9F 14 Lower Consecutive Offline Limit 00 01 9F 17 Personal Identification Number (PIN) Try Counter 9F 1F Track 1 Discretionary Data 30 36 32 39 33 30 34 32 33 30 30 30 30 30 30 30 30 30 30 30 30 30 30 00 9F 23 Upper Consecutive Offline Limit Application Cryptogram (AC) xx xx xx xx xx xx xx * 9F 26 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** 4C BF 13 28 20 81 6C 78 CE AF C1 CB 9F 46 ICC Public Key Certificate 16 A9 C7 FC B7 22 5E 07 27 F2 71 A9 12 89 4C EE B7 B4 DD 99 54 F1 C8 71 BE 2C 88 37 9A D5 6C 07 3F 2F 3F 05 67 6D 68 26 0A B4 36 30 BD 28 7E 26 1B 42 20 1C 14 F6 FA FE 20 0F 1C 11 3E C6 04 5A 36 CE B8 DF 56 70 C0 6F 06 51 5F D6 88 F2 AF D2 5F B5 D1 38 C3 C3 1F 5E 04 59 92 B9 F4 00 91 CC 03 6C F1 A4 03 9F 47 ICC Public Key Exponent F3 25 B3 BD AC FB F2 AD 0D 2C A1 DE 9F 48 ICC Public Key Remainder 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) 82 9F 4A Static Data Authentication Tag List 9F 4D Transaction Log Entry 0B 0A 9F 4F 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F **Transaction Log Format** 36 02 9F 52 06 03 10 0C 12 00 09 00 00 FF FF FF FF 9F 7E Application Life Cycle Data [Mastercard] FF 00 04 00 00 02 60 00 00 38 4A 02 11 50 35 43 44 30 37 32 20 C3 Card Issuer Action Code - Decline 00 00 00 [Mastercard] 06 50 00 C4 Card Issuer Action Code - Default [Mastercard] 06 FB 00 C5 Card Issuer Action Code - Online [Mastercard] 00 01 00 00 00 00 00 00 00 00 C6 Counters [Mastercard] CDOL1 Related Data Length 2В 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]

| Tag | Element name | Data Card v6.> |
|-------|-------------------------------------|-------------------------------------|
| D1 | Currency Conversion Table [M/Chip] | 08 40 00 01 00 08 40 00 01 00 08 40 |
| | , | 00 01 00 08 40 00 01 00 08 40 00 01 |
| | | 00 |
| D3 | Additional Check Table [Mastercard] | 00 00 00 FF FF FF FF FF FF FF FF |
| | , | FF FF FF FF FF |
| D5 | Application Control [M/Chip] | 82 00 |
| D6 | Default ARPC Response Code | 00 10 |
| | [M/Chip4] | |
| DF 02 | Security Limits Status [Mastercard] | 00 |

^{*} 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

| Cardhol | Cardholder Verification Method List ('0205 4103 4203 5E03 1F00') | | | | |
|---------|--|----------------------------|-----------------|--|--|
| CVM | Verification Method | Conditions | If unsuccessful | | |
| 1 | Online PIN | Purchase with Cashback | Fail | | |
| 2 | Offline Plaintext PIN | Terminal supports CVM type | Next CVM | | |
| 3 | Online PIN | Terminal supports CVM type | Next CVM | | |
| 4 | Signature (paper) | Terminal supports CVM type | Next CVM | | |
| 5 | No CVM required | Always | Fail | | |

4.11.2 Contact: Application Tag data, AID 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 |
| | | 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 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' |

Page 268

| 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 10 10 |
| 87 | Application Priority Indicator | 01 |
| 8C | Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| 00 | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| | 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 41 03 42 03 5E 03 1F 00 00 00 |
| 0.4 | List | 08 01 02 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 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 |
| 9F 11 | Advance] Issuer Code Table Index | 01 |
| 9F 11 | Application Preferred Name | 4D 61 73 74 65 72 63 61 72 64 20 44 |
| 9F 1Z | Application Freieneu Name | 65 62 69 74 - 'Mastercard Debit' |
| 9F 14 | Counter 1 Lower Limit [Mastercard] | 00 |
| 9F 17 | Personal Identification Number (PIN) | 09 |
| | Try Counter | |
| 9F 23 | Counter 1 Upper Limit [Mastercard] | 00 |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 42 | Application Currency Code | 08 40 - USD |
| 9F 4D | Transaction Log Entry | OB OA |
| 9F 4F | Transaction Log Format | 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F |
| | | 36 02 9F 52 06 DF 3E 01 9F 21 03 9F |
| | | 7C 14 |

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 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] 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 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 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 41

Advance]

Data Card v5.x Tag Element name 00 DF 1E Counter 2 Control (Contactless) [M/Chip Advance1 DF 1F Counter 2 Lower Limit [Mastercard] 00 00 DF 21 Counter 2 Upper Limit [Mastercard] DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 DF 23 MTA CVM (Contactless) [M/Chip Advance] MTA Currency Code [M/Chip Advance] 08 40 DF 24 DF 25 MTA NoCVM (Contact) [M/Chip 00 00 00 00 00 Advance1 **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] 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 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] 00 00 00 Counter 1 CVR Dependency Data DF 2D (Contactless) [M/Chip Advance] Counter 2 CVR Dependency Data 00 00 00 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 Advance] **DF 35** Security Limits Status (Contactless) 00 [M/Chip Advance] **DF 37** Security Limits Status Common [M/Chip 00 Advance] 00 DF 3C **CVR Issuer Discretionary Data** (Contact) [M/Chip Advance] 00 DF 3D **CVR Issuer Discretionary Data** (Contactless) [M/Chip Advance] 00 DF 3F Read Record Filter (Contact) [M/Chip Advance] Read Record Filter (Contactless) 00 DF 40 [M/Chip Advance]

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

DS Management Control [M/Chip

| 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 | |

20

^{*} Tag value changes with card usage

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 |
| | , .pp | 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 |
| 0. 20 | Saranoidor Hame | 73 74 20 43 61 72 64 20 31 31 20 20 |
| | | 20 20 - 'USA DEBIT/Test Card 11' |
| 5F 24 | Application Expiration Date | 25 12 31 |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 11 |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' |
| 82 | Application Interchange Profile | 18 00 |
| | | BYTE 1: |
| | | b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported via |
| | | External Auth command |
| | | b2 - On device Cardholder verification NOT |
| | | supported b1 - Combined DDA / GEN AC NOT supported |
| | | BYTE 2: |
| | | b8 - EMV mode NOT supported |
| 84 | Dedicated File (DF) Name | A0 00 00 00 04 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 |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| | | 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 |
| 8D | Card Risk Management Data Object List | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| | 2 (CDOL2) | |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 05 42 03 |
| | List | 1F 03 00 00 00 00 |
| 94 | Application File Locator (AFL) | 08 01 01 00 08 03 03 00 |
| 9F 07 | Application Usage Control | FF C0 BYTE 1: |
| | | b8 - Domestic cash trans, valid |
| | | b7 - Int'l cash transactions valid |
| | | |
| | | b6 - Domestic goods valid |
| | | b6 - Domestic goods valid b5 - International goods valid |
| | | b6 - Domestic goods validb5 - International goods validb4 - Domestic services valid |
| | | b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid |
| | | b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs 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 |
| | | b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs 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: |
| 9F 08 | Application Version Number | 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 0D | Issuer Action Code - Default | 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 B0 50 9C 88 00 |
| | | 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 |

Tag Element name Data Card v5.x 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 43 68 65 63 6B 69 6E 67 20 9F 12 **Application Preferred Name** 20 20 20 - 'US Checking' 9F 14 Counter 1 Lower Limit [Mastercard] 00 09 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] 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 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] 09 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 Security Limits Status (Contact) [M/Chip DF 02 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 DF 14 Accumulator 2 Control (Contact) [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]

Card v5.x Data Tag Element name Read Record Filter (Contact) [M/Chip 00 DF 3F Advance] 00 DF 40 Read Record Filter (Contactless) [M/Chip Advance] DS Management Control [M/Chip 20 DF 41 Advance]

4.11.5 Contact: CVM List - Maestro debit, AID A0000000043060

| Cardholder Verification Method List ('0205 4103 0203 0000') | | | | |
|---|-----------------------|----------------------------|-----------------|--|
| CVM | Verification Method | Conditions | If unsuccessful | |
| 1 | Online PIN | Purchase with Cashback | Fail | |
| 2 | Offline Plaintext PIN | Terminal supports CVM type | Next CVM | |
| 3 | Online PIN | Terminal supports CVM type | Fail | |
| 4 | No CVM required | Always | Fail | |

4.11.6 Contact: Application Tag data, AID 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 22 01 48 35 94 90 0F |
| 5A | Application Primary Account Number (PAN) | 67 99 99 89 00 00 02 00 05 1F |
| 5F 20 | Cardholder Name | 55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 31 31 20 20 20 - 'USA DEBIT/Test Card 11' |
| 5F 24 | Application Expiration Date | 25 12 31 |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 20 |
| 5F 34 | Application PAN Sequence Number | 12 |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' |
| 82 | Application Interchange Profile | 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 |

^{*} Tag value changes with card usage

Tag Element name Data Card v5.x 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 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 02 05 41 03 8E Cardholder Verification Method (CVM) 02 03 00 00 00 00 08 01 02 00 94 Application File Locator (AFL) 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 00 02 9F 08 **Application Version Number** Issuer Action Code - Default B0 50 BC 88 00 9F 0D 00 00 00 00 00 9F 0E Issuer Action Code - Denial B0 70 BC 98 00 9F 0F Issuer Action Code - Online 9F 10 Issuer Application Data [M/Chip xx xx xx xx xx xx * Advance] 01 Issuer Code Table Index 9F 11 9F 12 **Application Preferred Name** 4D 61 65 73 74 72 6F 20 20 20 20 20 20 20 20 - 'Maestro' 00 9F 14 Counter 1 Lower Limit [Mastercard] 09 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 ** 80 9F 27 Cryptogram Information Data (CID) xx xx * 9F 36 Application Transaction Counter (ATC) 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 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 50 17 79 00 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 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] C6 PIN Try Limit [M/Chip Advance] 09 42 C7 CDOL1 Related Data Length [Mastercard] CRM Country Code [Mastercard] 08 40 - USA C8 08 40 - USD C9 Accumulator 1 Currency Code [Mastercard] CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00

Card v5.x Tag Element name Data 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] CD Card Issuer Action Code (Contactless) -06 50 00 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 Accumulator 1 Currency Conversion D1 00 00 00 08 40 00 00 00 08 40 00 00 Table [Mastercard] 00 00 00 FF FF FF FF FF FF FF FF D3 Additional Check Table [Mastercard] FF FF FF FF FF 84 00 80 00 C6 02 D5 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] D9 Application File Locator (Contactless) 08 01 01 00 08 03 03 00 Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 DE 00 DF 02 Security Limits Status (Contact) [M/Chip Advance1 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 **DF 16** Accumulator 2 Currency Code [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] 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 Advance1 00 Counter 2 Control (Contactless) [M/Chip DF 1E Advance1 DF 1F Counter 2 Lower Limit [Mastercard] 00 00 DF 21 Counter 2 Upper Limit [Mastercard] DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 DF 23 MTA CVM (Contactless) [M/Chip Advance1 MTA Currency Code [M/Chip Advance] 08 40 DF 24 00 00 00 00 00 00 **DF 25** MTA NoCVM (Contact) [M/Chip Advance1 DF 26 MTA NoCVM (Contactless) [M/Chip 00 00 00 00 00 00 Number Of Days Offline Limit [M/Chip 00 00 **DF 27** Advance] 00 00 00 **DF 28** Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]

Data Card v5.x Tag Element name 00 00 00 DF 29 Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2A Accumulator 2 CVR Dependency Data 00 00 00 (Contact) [M/Chip Advance] 00 00 00 DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] 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] Counter 2 CVR Dependency Data 00 00 00 DF 2F (Contactless) [M/Chip Advance] 01 Interface Enabling Switch [M/Chip **DF 30** Advance] Security Limits Status (Contactless) 00 **DF 35** [M/Chip Advance] 00 Security Limits Status Common [M/Chip **DF 37** Advance1 DF 3C **CVR Issuer Discretionary Data** 00 (Contact) [M/Chip Advance] 00 DF 3D **CVR Issuer Discretionary Data** (Contactless) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip 00 Advance] Read Record Filter (Contactless) 00 DF 40 [M/Chip Advance] 20 DF 41 DS Management Control [M/Chip 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 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 | 55 53 41 20 44 65 62 69 74 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 31 31 20 20 |
| | | 20 20 - 'USA DEBIT/Test Card 11' |
| 5F 24 | Application Expiration Date | 25 12 31 |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |

^{*} Tag value changes with card usage

| Tag | Element name | Data Card v4.x |
|-------|---------------------------------------|--|
| 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 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 |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 |
| | | 9F 7C 14 |
| 8D | Card Risk Management Data Object List | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| | 2 (CDOL2) | |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 05 42 03 |
| | List | 1F 03 00 00 00 00 |
| 94 | Application File Locator (AFL) | 08 01 01 00 08 03 03 00 |
| 9F 07 | Application Usage Control | FF CO |
| | | BYTE 1: |
| | | b8 - Domestic cash trans. valid |
| | | b7 - Int'l cash transactions valid b6 - Domestic goods valid |
| | | b5 - International goods valid |
| | | b4 - Domestic services valid |
| | | b3 - International services valid |
| | | b2 - ATMs valid b1 - non-ATM terminals valid |
| | | BYTE 2: |
| | | b8 - Domestic cashback allowed |
| | | b7 - International cashback allowed |
| 9F 08 | Application Version Number | 00 02 |
| 9F 0D | Issuer Action Code - Default | B0 50 9C 88 00 |
| 9F 0E | Issuer Action Code - Denial | 00 00 00 00 00 |
| 9F 0F | Issuer Action Code - Online | B0 70 9C 98 00 |
| 9F 10 | Issuer Application Data [M/Chip | xx 10 xx |
| 05.1: | Advance] | xx xx xx xx xx x * |
| 9F 11 | Issuer Code Table Index | 01 FF F2 20 F2 C1 76 C0 CF C7 72 20 20 |
| 9F 12 | Application Preferred Name | 55 53 20 53 61 76 69 6E 67 73 20 20 20 20 20 - 'US Savings' |
| 9F 14 | Counter 1 Lower Limit [Mastercard] | 00 20 20 - 05 Savings |
| 9F 14 | Personal Identification Number (PIN) | 09 |
| 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 | OB OA |
| טי יט | Transaction Log Linky | |

Element name Data Card v4.x Tag 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] 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 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] 09 C6 PIN Try Limit [M/Chip Advance] 42 C7 CDOL1 Related Data Length [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] 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 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 80 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] 80 00 80 00 C6 02 08 01 01 00 08 03 03 00 D9 Application File Locator (Contactless) Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 00 DE 00 DF 02 Security Limits Status (Contact) [M/Chip Advance1 DF 11 Accumulator 1 Control (Contact) C1[M/Chip Advance] C1 DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] 00 Accumulator 2 Control (Contact) **DF 14** [M/Chip Advance] 00 **DF 15** Accumulator 2 Control (Contactless) [M/Chip Advance] 09 99 **DF 16** Accumulator 2 Currency Code [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 Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 **DF 18** 00 00 00 00 00 00 DF 19 Accumulator 2 Upper Limit [Mastercard] DF 1A Counter 1 Control (Contact) [M/Chip C1 Advance]

| Ton | Flows and in one o | Data Card v4 v |
|----------|---|-------------------|
| Tag | Element name | Data Card v4.x |
| DF 1B | Counter 1 Control (Contactless) [M/Chip | CI |
| 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] | 00.40 |
| 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 |
| 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 2C | 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 |
| רו אר | Advance | |
| DF 40 | Read Record Filter (Contactless) | 00 |
| DF 40 | [M/Chip Advance] | |
| DF 41 | DS Management Control [M/Chip | 20 |
| 0, 4, | Advance] | |
| <u> </u> | | |

^{*} 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

| 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' |
| 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 |
| FF 04 | Application Expiration Data | 20 20 - 'USA DEBIT/Test Card 12' |
| 5F 24 | Application Expiration Date | xx xx xx * |
| 5F 25 | Application Effective Date | 08 40 - USA |
| 5F 28 | Issuer Country Code | |
| 5F 2D | Language Preference | 65 6E 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 |
| 02 | Application interchange Frome | BYTE 1: |
| | | b7 - Offline SDA NOT supported |
| | | b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported |
| | | b1 - Combined DDA / GEN AC NOT supported BYTE 2: |
| | | b8 - EMV Contactless NOT supported |
| 84 | Dedicated File (DF) Name | A0 00 00 01 52 40 10 |
| 87 | Application Priority Indicator | 01 |
| 8C | Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| | , | 9F 34 03 |
| 8D | Card Risk Management Data Object List 2 (CDOL2) | 91 0A 8A 02 95 05 9F 37 04 |
| 8E | Cardholder Verification Method (CVM) List | 00 00 00 00 00 00 00 00 02 03 1F 03 |
| 94 | Application File Locator (AFL) | 08 01 01 00 10 01 01 00 18 01 01 00 |

Page 282

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 |
| 55.04 | A 11 11 E 1 11 B 1 | 20 20 - 'USA DEBIT/Test Card 12' 23 12 31 |
| 5F 24 | Application Expiration Date | |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E 65 73 66 72 - 'enesfr' (English, |
| 55.00 | | Spanish, French) |
| 5F 30 | Service Code | 7- 7- |
| 5F 34 | Application PAN Sequence Number | 01 |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' |
| 82 | Application Interchange Profile | 10 00 |
| | | BYTE 1: |
| | | b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported |
| | | b1 - Combined DDA / GEN AC NOT supported |
| | | BYTE 2: |
| | | b8 - EMV Contactless NOT supported |
| 84 | Dedicated File (DF) Name | A0 00 00 01 52 30 10 |
| 87 | Application Priority Indicator | 02 |
| 8C | Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| 0D | Cord Diak Management Data Chiest List | 9F 34 03 91 0A 8A 02 95 05 9F 37 04 |
| 8D | Card Risk Management Data Object List 2 (CDOL2) | |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 01 02 03 |
| | List | 42 03 1E 03 1F 03 |
| 94 | Application File Locator (AFL) | 08 01 01 00 10 01 01 00 18 02 02 00 |

Page 284

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

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

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

| Sevice Code | Tog | Element name | Doto Cord vE v |
|--|-------|---------------------------------------|---|
| Spanish | | | |
| DEBIT STrack 2 Data [Discover] | | | |
| 10 | | •• | DEBIT' |
| SF 20 Cardholder Name | 57 | Track 2 Data [Discover] | |
| 44 | 5A | | 60 11 97 37 00 00 00 05 |
| SF 25 Application Effective Date xx xx xx * | 5F 20 | Cardholder Name | 44 4D 45 4D 42 45 52 20 - DISCOVER |
| SF 28 | 5F 24 | Application Expiration Date | 23 12 31 |
| SF 28 | 5F 25 | Application Effective Date | xx xx xx * |
| SF 2D | 5F 28 | | 08 40 - USA |
| SF 34 Application PAN Sequence Number SF 55 Issuer Country Code (alpha2 format) S5 53 - 'US' 82 | | | Spanish, French) |
| SF 55 Issuer Country Code (alpha2 format) S5 53 - 'US' 82 | 5F 30 | Service Code | 02 01 |
| SF 55 Issuer Country Code (alpha2 format) S5 53 - 'US' 82 | 5F 34 | Application PAN Sequence Number | 01 |
| Application Interchange Profile [DPAS CL] Application Interchange Profile [DPAS 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 AD 00 00 01 52 40 10 BYTE 1: BY - Offline SDA NOT supported B4 - Terminal risk mgmt NOT to be performed b3 - Issuer authentication NOT supported B4 - Application Priority Indicator B5 - Cardholder Verification Method (CVM) List 94 - Application File Locator (AFL) 95 07 - Application Usage Control BYTE 1: B8 - Domestic cash transactions valid b6 - Domestic goods valid b7 - International goods valid b6 - Domestic services valid b7 - International services valid b8 - Terminals other than ATMs valid b7 - International cashback NOT allowed | 5F 55 | | 55 53 - 'US' |
| B4 | - | Application Interchange Profile [DPAS | 10 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt NOT to be performed b3 - Issuer authentication NOT supported using External Auth command |
| Application Priority Indicator 8E | 84 | Dedicated File (DF) Name | A0 00 00 01 52 40 10 |
| 8E Cardholder Verification Method (CVM) List 94 Application File Locator (AFL) 95 O7 Application Usage Control 96 O8 01 02 00 18 01 01 00 97 BYTE 1: 98 Domestic cash transactions valid 99 Domestic goods valid 90 Do | | | |
| 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 b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed | | Cardholder Verification Method (CVM) | |
| 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 b1 - Terminals other than 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 08 Application Version Number 9F 00 01 Susuer Application Data [DPAS CL] Susuer Application Cryptogram (AC) Susuer Application Cryptogram (AC) Susuer Application Data (CID) | 94 | Application File Locator (AFL) | 08 01 02 00 18 01 01 00 |
| 9F 10 Issuer Application Data [DPAS CL] | 9F 07 | | 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 26 Application Cryptogram (AC) | 9F 08 | Application Version Number | 00 01 |
| 9F 27 Cryptogram Information Data (CID) 80 | 9F 10 | Issuer Application Data [DPAS CL] | xx 15 xx xx xx xx xx xx xx xx * |
| 9F 27 Cryptogram Information Data (CID) 80 | 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| | 9F 27 | | 80 |
| | 9F 36 | , , | xx xx * |

Page 286

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) 00 00 00 00 00 00 00 00 00 00 00 C2 Issuer Life Cycle Data (ILCD) [DPAS] 00 C3 Currency Conversion Codes 1 [DPAS] 08 40 00 01 00 Currency Conversion Codes 2 [DPAS] 08 40 00 01 00 C4 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 DF 31 CRM-CAC Denial [D-PAS] C8 7E FF **DF 32** CRM-CAC Online [D-PAS] 98 3E EB CRM-CAC Default [D-PAS] **DF 33** 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 DF 43 **CL-Counter** 00 00 **DF 44 CL-Cons Limit**

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

| 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 |
| 5A | Application Primary Account Number (PAN) | 60 11 97 37 00 00 00 05 |
| 5F 20 | Cardholder Name | 44 49 53 43 4F 56 45 52 20 43 41 52 44 4D 45 4D 42 45 52 20 - 'DISCOVER CARDMEMBER' |
| 5F 24 | Application Expiration Date | 23 12 31 |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E 65 73 66 72 - 'enesfr' (English, Spanish, French) |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 01 |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' |
| 82 | Application Interchange Profile [DPAS CL] | 10 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt NOT to be performed b3 - Issuer authentication NOT supported using External Auth command b1 - Combined DDA / GEN AC NOT supported |
| 84 | Dedicated File (DF) Name | A0 00 00 01 52 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 07 | 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 |
| 9F 10 | Issuer Application Data [DPAS CL] | xx 15 xx xx xx xx xx xx xx xx * |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| | | 80 |
| 9F 27 | Cryptogram Information Data (CID) | xx xx * |
| 9F 36 | Application Transaction Counter (ATC) | |
| 9F 38 | Processing Options Data Object List | 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9A 03 9C 01 9F 37 04 |
| 25.45 | (PDOL) | |
| 9F 4D | Transaction Log Entry | 0B 0A |
| 9F 4F | Transaction Log Format | 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F |
| | | 34 03 9F 52 06 9F 1A 02 95 05 9C 01 8A 02 9F 37 04 9F 03 06 9F 53 08 9F |
| | | 66 04 9F 71 02 9F 6C 02 |
| 9F 6C | Card Transaction Qualifiers [DPAS] | 00 00 |
| 9F 71 | Card Processing Requirements [DPAS] | 00 8B |
| 9F 71 | | 00 8B |
| | Card Processing Requirements [DPAS] | 01 |
| 9F 78 | Application State [D-PAS] | 82 02 00 00 94 04 08 01 01 00 |
| BF 51 | Contactless D-PAS MS and ZIP Default Profile | 82 02 00 00 94 04 08 01 01 00 |
| 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] | 00 00 00 00 00 00 |
| C8 | Lower Consecutive Offline Amount | 00 00 00 00 00 00 |
| -00 | (LCOA) Limit [DPAS] | 00 00 00 00 00 00 |
| C9 | Upper Consecutive Offline Amount Limit | 00 00 00 00 00 00 |
| 0.4 | (UCOA) [DPAS] | 00 00 00 00 00 00 |
| CA | Single Transaction Amount (STA) Limit | 00 00 00 00 00 |
| | [DPAS] | |
| СВ | Lower Consecutive Offline Limit (LCOL) | 00 |
| | [DPAS] | 00 |
| 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 |
| D2 | CRM Country Code [DPAS] | 08 40 - USA |
| D3 | CRM Currency Code [DPAS] | 08 40 - USD |
| D4 | CVM-Accumulator [DPAS] | 00 00 00 00 00 00 |
| D5 | CVM-Cum limit 1 | 00 00 00 00 00 00 |
| | | |

Card v5.x Tag Element name Data 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 D8 CVM-STA limit 2 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 CRM-CAC Switch Interface [D-PAS] 00 00 00 DF 30 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 **CL-Cons Limit** 00

4.13 Test Card 13 - Discover, CO, 1-AID (U.S. Debit), English, USA, USD

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

The recommended transaction amount to generate a host approval is \$79.00.

4.13.1 Contact: CVM List - Discover U.S. Debit, AID A0000001524010

| 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 | |

^{*} Tag value changes with card usage

Tag Element name Data Card v5.x 55 53 20 44 45 42 49 54 - 'US DEBIT' 50 **Application Label** Track 2 Data [Discover] 60 11 97 37 00 00 00 05 D2 31 22 01 57 10 00 07 49 00 00 OF 60 11 97 37 00 00 00 05 5A **Application Primary Account Number** (PAN) Cardholder Name 55 53 41 20 44 45 42 49 54 2F 54 65 5F 20 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 xx xx xx * **Application Effective Date** 08 40 - USA 5F 28 **Issuer Country Code** 5F 2D 65 6E - 'en' (English) Language Preference 5F 30 Service Code 02 01 01 5F 34 Application PAN Sequence Number 5F 55 Issuer Country Code (alpha2 format) 55 53 - 'US' 18 00 82 Application Interchange Profile BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported 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** Card Risk Management Data Object List 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 8C 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 2 (CDOL2) 8E 00 00 00 00 00 00 00 00 02 03 1F 03 Cardholder Verification Method (CVM) 00 00 00 00 List 08 01 01 00 10 01 02 00 18 01 01 00 Application File Locator (AFL) 94 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 BYTF 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed BO 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 xx 06 xx xx xx xx xx * 9F 10 Issuer Application Data [DPAS] 9F 11 Issuer Code Table Index 01 9F 12 55 53 20 44 65 62 69 74 - 'US Debit' **Application Preferred Name** 03 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) * xx xx 9F 36 Application Transaction Counter (ATC) 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 Card Action Code - Default [DPAS] C6 C7 Card Action Code - Online [DPAS] FE 1F D0 Issuer Application Data ObjectList (IADOL) [DPAS] D2 08 40 - USA CRM Country Code [DPAS] D3 CRM Currency Code [DPAS] 08 40 - USD 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

| 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

| Tag | Element name | Data Card v5.x |
|-------|---|--|
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 31 34 20 20 |
| | | 20 20 - 'USA DEBIT/Test Card 14' |
| 5F 24 | Application Expiration Date | 25 12 31 |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 01 18 00 |
| 82 | Application Interchange Profile | BYTE 1: |
| | | b7 - Offline SDA NOT supported |
| | | b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported |
| | | BYTE 2: |
| | | b8 - EMV Contactless NOT supported |
| 84 | Dedicated File (DF) Name | A0 00 00 06 20 06 20 |
| 87 | Application Priority Indicator | 01 |
| 8C | Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 34 03 |
| 8D | Card Risk Management Data Object List | 91 0A 8A 02 95 05 9F 37 04 |
| סט | 2 (CDOL2) | 31 di di d2 33 d3 31 37 d4 |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 01 02 04 |
| OL | List | 02 03 1F 03 |
| 94 | Application File Locator (AFL) | 08 01 01 00 18 01 02 01 |
| 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 | F0 40 E4 28 00 |
| 9F 0E | Issuer Action Code - Denial | 00 10 00 00 40 |
| 9F 0F | Issuer Action Code - Online | F0 68 FC F8 00 |
| 9F 10 | Issuer Application Data [DPAS] | xx xx A0 xx xx xx x * |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 12 | Application Preferred Name | 44 65 62 69 74 - 'Debit' |
| 9F 17 | Personal Identification Number (PIN) | 03 |
| 05.00 | Try Counter | |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Ominata arrana Informatikana Distri (OID) | I QN |
| 00.00 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 4D | Application Transaction Counter (ATC) Transaction Log Entry | xx xx * 0B 0A |
| - | Application Transaction Counter (ATC) | xx xx * 0B 0A 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F |
| 9F 4D | Application Transaction Counter (ATC) Transaction Log Entry | xx xx * 0B 0A |
| 9F 4D | Application Transaction Counter (ATC) Transaction Log Entry | 0B 0A 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 1A 02 95 05 9C 01 |

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 ('0403 0103 0203') | | | |
|--------|--|---------------------------|-----------------|--|
| CVM | Verification Method | Conditions | If unsuccessful | |
| 1 | Offline Enciphered PIN | Termina supports CVM type | Fail | |
| 2 | Offline Plaintext PIN | Termina supports CVM type | Fail | |
| 3 | Online PIN | Termina supports CVM type | Fail | |

4.15.2 Contact: Application Tag data, AID A0000002771010

| Tag | Element name | Data Card v6.x |
|-------|--|--|
| 50 | Application Label | 49 6E 74 65 72 61 63 - 'Interac' |
| 57 | Track 2 Equivalent Data | 00 12 03 00 00 00 00 03 D2 81 22 20 08 97 74 00 00 00 1F |
| 5A | Application Primary Account Number (PAN) | 00 12 03 00 00 00 00 03 |
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 31 35 20 20 |
| | | 20 20 - 'USA DEBIT/Test Card 15' |
| 5F 24 | Application Expiration Date | 28 12 31 |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 01 24 - CAN |
| 5F 2D | Language Preference | 65 6E 66 72 - 'enfr' (English, French) |
| 5F 30 | Service Code | 02 20 |
| 5F 34 | Application PAN Sequence Number | 01 |
| 5F 56 | Issuer Country Code (alpha3 format) | 43 41 4E - 'CAN' |

^{*} Tag value changes with card usage

| Tag | Element name | Data Card v6.x |
|-------|--|--|
| 82 | Application Interchange Profile | 19 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 b1 - Combined DDA / GEN AC supported |
| | | BYTE 2: |
| | | b8 - EMV Contactless NOT supported |
| 84 | Dedicated File (DF) Name | A0 00 00 02 77 10 10 |
| 87 | Application Priority Indicator | 01 |
| 8C | Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 45 02 |
| | 1 (ODOL1) | 9F 4C 08 9F 34 03 |
| 8D | Card Risk Management Data Object List | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| | 2 (CDOL2) | |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 04 03 01 03 |
| | List | 02 03 |
| 8F | Certification Authority Public Key Index | 07 |
| 90 | Issuer Public Key Certificate | 7E 37 FF 15 A4 88 1C 32 6D 5F 61 E4 |
| | issue: r using riej commente | D7 4A 00 39 24 76 D5 44 80 B9 16 92 |
| | | 4A 70 65 B7 B3 40 F3 1F A4 86 84 E1 |
| | | 99 CE 82 DA 3F F6 0C 77 4A 13 D0 0B |
| | | C8 46 7B 87 1C 9E 00 40 28 FA 44 D9 |
| | | 55 38 0E D5 50 F9 F0 C8 B0 3B 3F 9A |
| | | CE OF FA FA 8B A6 B4 OC F9 69 A9 72 AF C9 D1 EC 56 25 A0 OB B8 OE EO 38 |
| | | 6E 57 22 BD FC 5C 7D 89 0C 71 5F 54 |
| | | 67 4F CE B2 0B 5E 0E 80 E8 77 0B 59 |
| | | 9E A4 E6 15 D8 60 2D 30 37 F4 CB B2 |
| | | CC 6F 4D B2 99 34 78 FC CE 47 A5 23 |
| | | 59 AA 00 A4 94 C5 87 BB D3 2F 3B 64 |
| | | A9 2E F8 77 47 25 66 A1 A7 24 F2 0B |
| | | BB C8 24 26 9C 34 80 22 EF E7 83 85 13 A7 AD 3B DE 7B 2B 3D B8 8F 5F B3 |
| | | A1 DA 45 B8 38 14 16 A1 OF 77 7E 55 |
| | | 07 B8 05 48 33 D3 99 97 C1 5B 34 34 |
| | | E0 86 A7 B6 7F 6B B0 29 60 E1 F5 59 |
| | | 20 DC 2E 12 38 91 DA 23 34 03 AA D3 |
| | | 97 75 0F 44 56 09 CD 2A |
| 94 | Application File Locator (AFL) | 08 01 04 00 10 01 01 01 18 01 04 01 |
| 9F 07 | Application Usage Control | FF 00 |
| | | BYTE 1: |
| | | b8 - Domestic cash transactions valid |
| | | b7 - Int'l cash transactions valid b6 - Domestic goods valid |
| | | b5 - International goods valid |
| | | b4 - Domestic services valid |
| | | b3 - International services valid |
| | | b2 - ATMs valid |
| | | b1- Terminals other than ATMs valid |
| | | BYTE 2: |
| | | b8 - Domestic cashback NOT allowed |
| OF OO | Application Varsian Number | b7 - International cashback NOT allowed |
| 9F 08 | Application Version Number | FC 78 FC A8 40 |
| 9F 0D | Issuer Action Code - Default | 00 00 00 00 00 |
| 9F 0E | Issuer Action Code - Denial | |
| 9F 0F | Issuer Action Code - Online | FC F8 FC F8 70 |
| 9F 10 | Issuer Application Data [InteracFlash] | xx 02 xx |
| 9F 13 | Last Online Application Transaction | xx xx * |
| 01 13 | Counter (ATC) Register | |
| | Country (110) Hogister | |

Card v6.x Tag Element name Data 9F 17 Personal Identification Number (PIN) Try Counter 9F 27 Cryptogram Information Data (CID) 80 01 00 01 9F 32 Issuer Public Key Exponent 9F 36 Application Transaction Counter (ATC) xx xx * 9F 42 **Application Currency Code** 01 24 - CAD 9F 44 **Application Currency Exponent** 02 9F 46 ICC Public Key Certificate 55 DF E1 E2 CD 4F 10 63 CD CE 9F D8 67 DO B2 36 E4 FC 13 85 C3 1A 82 1A DA 2E D9 28 24 52 C8 CB 7A 67 45 5B B3 B2 38 CD B4 B1 20 17 CE 75 7C 84 E6 FC E8 15 A9 AC 63 OF 98 04 9C 7E 6C 25 F6 47 BB 64 4D C9 97 37 46 2A A8 EB F2 9E 5E DD 8E 93 DE EA B3 5E 54 FF 2D D8 2A B1 22 F8 BE D8 59 D9 49 20 B0 D1 29 DC 09 1D BD 9A 3A AA A9 90 CB E9 FB D2 C8 E4 72 9C 7A FB 26 B4 2C 31 6D 09 B0 71 1F 39 4A 16 3D 81 8B C3 66 97 68 66 9C AD 94 69 E9 78 0D 15 C5 60 49 6A 99 D2 1A 1B C2 56 A0 8E 13 A6 B1 8D 7C 27 59 63 AC E2 CE D0 94 7B 24 02 9F 47 ICC Public Key Exponent 01 00 01 4A 69 14 C9 E8 EA 10 F7 E3 7D 9F 48 ICC Public Key Remainder 9F 4A Static Data Authentication Tag List 82 9F 4D Transaction Log Entry 0B 0A 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 9F 4F Transaction Log Format 1A 02 95 05 9C 01 8A 02 9F 62 Card Product Code [InteracFlash] 00 01 00 9F 70 Form Factor Indicator [InteracFlash] 80 80 **DF 62** Application Selection Flag [Canada]

4.15.3 CTLS: Application Tag data, AID A0000002771010 (Flash)

| Tag | Element name | Data Card v6.x |
|-------|--|---|
| 50 | Application Label | 49 6E 74 65 72 61 63 - 'Interac' |
| 57 | Track 2 Equivalent Data | 00 12 03 00 00 00 00 03 D2 81 22 20 08 97 74 00 00 00 1F |
| 5A | Application Primary Account Number (PAN) | 00 12 03 00 00 00 00 03 |
| 5F 24 | Application Expiration Date | 28 12 31 |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 01 24 - CAN |
| 5F 2D | Language Preference | 65 6E 66 72 - 'enfr' (English, French) |
| 5F 30 | Service Code | 02 20 |
| 5F 34 | Application PAN Sequence Number | 01 |
| 5F 56 | Issuer Country Code (alpha3 format) | 43 41 4E - 'CAN' |
| 82 | Application Interchange Profile | 01 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification NOT supported b4 - Terminal risk mgmt NOT to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC supported BYTE 2: b8 - EMV Contactless NOT supported |
| 84 | Dedicated File (DF) Name | A0 00 00 02 77 10 10 |
| 87 | Application Priority Indicator | 01 |

^{*} Tag value changes with card usage

Element name Data Tag Card v6.x 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 45 02 1 (CDOL1) 9F 4C 08 9F 34 03 07 8F Certification Authority Public Key Index 7E 37 FF 15 A4 88 1C 32 6D 5F 61 E4 90 Issuer Public Key Certificate D7 4A 00 39 24 76 D5 44 80 B9 16 92 4A 70 65 B7 B3 40 F3 1F A4 86 84 E1 99 CE 82 DA 3F F6 OC 77 4A 13 DO 0B C8 46 7B 87 1C 9E 00 40 28 FA 44 D9 55 38 0E D5 50 F9 F0 C8 B0 3B 3F 9A CE OF FA FA 8B A6 B4 OC F9 69 A9 72 AF C9 D1 EC 56 25 A0 0B B8 0E E0 38 6E 57 22 BD FC 5C 7D 89 0C 71 5F 54 67 4F CE B2 OB 5E OE 80 E8 77 OB 59 9E A4 E6 15 D8 60 2D 30 37 F4 CB B2 CC 6F 4D B2 99 34 78 FC CE 47 A5 23 59 AA 00 A4 94 C5 87 BB D3 2F 3B 64 A9 2E F8 77 47 25 66 A1 A7 24 F2 0B BB C8 24 26 9C 34 80 22 EF E7 83 85 13 A7 AD 3B DE 7B 2B 3D B8 8F 5F B3 A1 DA 45 B8 38 14 16 A1 OF 77 7E 55 07 B8 05 48 33 D3 99 97 C1 5B 34 34 E0 86 A7 B6 7F 6B B0 29 60 E1 F5 59 20 DC 2E 12 38 91 DA 23 34 03 AA D3 97 75 OF 44 56 09 CD 2A Application File Locator (AFL) 08 01 04 00 10 01 05 03 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 02 9F 08 **Application Version Number** FC F8 FC F8 00 9F 0D Issuer Action Code - Default 00 00 00 00 00 9F 0E Issuer Action Code - Denial 9F 0F Issuer Action Code - Online FC F8 FC F8 00 9F 10 Issuer Application Data [InteracFlash] xx 02 xx ** xx xx * 9F 13 Last Online Application Transaction Counter (ATC) Register 99 9F 17 Personal Identification Number (PIN) Try Counter 80 9F 27 Cryptogram Information Data (CID) 01 00 01 9F 32 Issuer Public Key Exponent xx xx * 9F 36 Application Transaction Counter (ATC) 9F 59 03 9F 5A 01 9F 02 06 9F 1A 02 9F 38 **Processing Options Data Object List** 5F 2A 02 9F 37 04 9F 58 01 (PDOL) 9F 42 01 24 - CAD **Application Currency Code** 02 9F 44 **Application Currency Exponent**

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

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

A contact-only, 3-AID Mastercard Credit / Debit card with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

4.16.1 Contact: CVM List - Mastercard, AID A00000004101001

| Cardho | Cardholder Verification Method List ('4103 4203 5E03 1F00 0000') | | | | | | |
|--------|--|----------------------------|----------|--|--|--|--|
| CVM | CVM Verification Method Conditions If unsuccessful | | | | | | |
| 1 | Offline Plaintext PIN | Terminal supports CVM type | Next CVM | | | | |
| 2 | Online PIN | Terminal supports CVM type | Next CVM | | | | |
| 3 | Signature (Paper) | Terminal supports CVM type | Next CVM | | | | |
| 4 | No CVM required | Always | Fail | | | | |
| 5 | Fail CVM Processing | Always | Fail | | | | |

^{*} Tag value changes with card usage

4.16.2 Contact: Application Tag data, AID A000000004101001

| Tag | Element name | Data Card v6.x |
|-------|---|--|
| 50 | Application Label | 4D 41 53 54 45 52 43 41 52 44 43 52 |
| | | 45 44 49 54 - 'MASTERCARDCREDIT' |
| 57 | Track 2 Equivalent Data | 54 13 33 00 89 02 00 60 D2 51 22 01 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 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 31 36 20 20 20 20 - 'USA DEBIT/Test Card 16' |
| 5F 24 | Application Expiration Date | 25 12 31 |
| 5F 25 | Application Explication Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 01 |
| 82 | Application Interchange Profile | 18 00 |
| 02 | Application interchange Frome | BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported |
| 84 | Dedicated File (DF) Name | A0 00 00 00 04 10 10 01 |
| 87 | Application Priority Indicator | 01 |
| 8C | Card Risk Management Data Object List 1 (CDOL1) | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 |
| 8D | Card Risk Management Data Object List 2 (CDOL2) | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| 8E | Cardholder Verification Method (CVM) List | 00 00 00 00 00 00 00 00 41 03 42 03 5E 03 1F 00 00 00 |
| 94 | Application File Locator (AFL) | 08 01 01 00 10 01 02 00 |
| 94 | Application File Locator (AFL) | 08 01 01 00 10 01 02 00 |
| 9F 07 | Application Usage Control | FF 00 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid 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 |
| OF 44 | Advance] | 01 |
| 9F 11 | Issuer Code Table Index | OT. |

 Tag
 Element name
 Data
 Card v6.x

 0F 12
 Application Professed Name
 4D 61 73 74 65 72 63 61 72 64 43 72

| Section Preferred Name | Tag | Element name | Da | ita | | | | | | | | | Ca | rd \ | /6.x |
|--|-----------|--|----|-----|-----|-----|-----|------|-------|------|------|------------|----|------|------------|
| SF 14 Counter 1 Lower Limit [Mastercard] | 9F 12 | Application Preferred Name | | | | | | | | | | | | 43 | 72 |
| Personal Identification Number (PIN) Try Counter | | | | 64 | 6 | 9 . | 74 | - 'N | laste | erca | rdCr | edit' | | | |
| Try Counter Try Counter Try Counter Tupper Limit [Mastercard] | | | | | | | | | | | | | | | |
| SP 23 Counter 1 Upper Limit [Mastercard] O | 9F 17 | | 09 | | | | | | | | | | | | |
| SP 26 Application Cryptogram (AC) 28 FR AF 1A 64 BF F4 32 | 05.00 | | | | | | | | | | | | | | |
| SF 27 | | | | | 70. | F 1 | 1 7 | 61 | DE | ΕΛ | 22 | | | | |
| Section Sect | | | | | Α. | .г. | LA | 04 | Dr | r 4 | 32 | | | | |
| SF 42 Application Currency Code 08 40 -USD | | | | | * | | | | | | | | | | |
| 9F 4D | | | | | | | n | | | | | | | | |
| 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 12 00 02 50 A0 00 00 00 00 00 00 00 00 00 00 00 00 | | | | | | - | | | | | | | | | |
| Security Security | | | 9F | 27 | 0: | 1 9 | 9F | 02 | 06 | 5F | 2A | 02 | 9A | 03 | 9F |
| PF 7E | 0 | Transastion Log Format | 36 | 02 | 9 | F S | 52 | 06 | DF | 3E | 01 | 9 F | 21 | 03 | 9 F |
| A0 | | | | | | | | | | | | | | | |
| Card Issuer Action Code (Contact) - Decline [M/Chip Advance] | 9F 7E | Application Life Cycle Data [Mastercard] | | | | | | | | | | | | | |
| C3 | | | | | | | | | | | | | | | |
| Decline [M/Chip Advance] | | | | | | | | | | | | | | | |
| Decline [M/Chip Advance] | C3 | Card Issuer Action Code (Contact) - | | | | | | | | | | | | | |
| Default [M/Chip Advance] | | | | | | | | | | | | | | | |
| C5 | C4 | ` , | 1F | 50 | 0 | 0 | | | | | | | | | |
| Online [M/Chip Advance] | | | | | | | | | | | | | | | |
| C6 | C5 | | 3F | FB | 0 | 0 | | | | | | | | | |
| C7 | | | | | | | | | | | | | | | |
| [Mastercard] | | | | | | | | | | | | | | | |
| C8 | C7 | | 42 | | | | | | | | | | | | |
| C9 | <u>C0</u> | | | 40 | | LIC | ۸ | | | | | | | | |
| Mastercard CA | | | | | | | | | | | | | | | |
| CA | C9 | • | 00 | 40 | - | US | ט | | | | | | | | |
| CB | СА | | 00 | 00 | 0 | 0 (| 00 | 00 | 00 | | | | | | |
| CD | | | | | | | | | | | | | | | |
| Default [M/Chip Advance] | | | | | | | | | | | | | | | |
| CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 01 01 08 40 00 01 01 08 40 00 01 D3 Additional Check Table [Mastercard] 00 00 00 FF F | | | | | | | | | | | | | | | |
| Online [M/Chip Advance] | CE | | 00 | 00 | 0 | 0 | | | | | | | | | |
| Decline [M/Chip Advance] | | | | | | | | | | | | | | | |
| D1 | CF | Card Issuer Action Code (Contactless) - | 00 | 00 | 0 | 0 | | | | | | | | | |
| Table [Mastercard] | | | | | | | | | | | | | | | |
| D3 Additional Check Table [Mastercard] D4 D5 Application Control [M/Chip Advance] D5 Application Control [M/Chip Advance] D6 Default ARPC Response Code [M/Chip Advance] D7 Application Control [M/Chip Advance] D8 Application Control [M/Chip Advance] D9 Application File Locator (Contactless) DE Log Data Table [M/Chip Advance] D6 DF 02 Security Limits Status (Contact) [M/Chip Advance] D7 Accumulator 1 Control (Contact) [M/Chip Advance] D7 Accumulator 1 Control (Contact) [M/Chip Advance] D8 Accumulator 1 Control (Contact) [M/Chip Advance] D8 Accumulator 1 Control (Contact) [M/Chip Advance] D9 Accumulator 1 Control (Contact) [M/Chip Advance] D8 Accumulator 1 Control (Contact) [M/Chip Advance] D9 Accumulator 1 Control (Contact) [M/Chip Advance] D9 Accumulator 1 Control (Contact) [M/Chip Advance] D9 Accumulator 1 Control (Contact) [M/Chip Advance] | D1 | | | | | | | | | | | | | | |
| D3 Additional Check Table [Mastercard] D6 Application Control [M/Chip Advance] D6 Default ARPC Response Code [M/Chip Advance] D7 Application Control [M/Chip Advance] D8 Application Control [M/Chip Advance] D9 Application File Locator (Contactless) DE Log Data Table [M/Chip Advance] DF 02 Security Limits Status (Contact) [M/Chip Advance] DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) DF 14 Accumulator 2 Control (Contact) [M/Chip Advance] DF 14 Accumulator 2 Control (Contact) [M/Chip Advance] DF 15 Accumulator 2 Control (Contact) [M/Chip Advance] DF 16 Accumulator 2 Control (Contact) [M/Chip Advance] DF 17 Accumulator 2 Control (Contact) [M/Chip Advance] DF 18 Accumulator 2 Control (Contact) [M/Chip Advance] | | Table [Mastercard] | | | 0. | 1 (| 98 | 40 | 00 | 01 | 01 | 08 | 40 | 00 | 01 |
| D5 Application Control [M/Chip Advance] 86 00 80 00 C6 02 D6 Default ARPC Response Code [M/Chip Advance] 00 10 Advance] D7 Application Control [M/Chip Advance] 00 00 00 00 00 00 D9 Application File Locator (Contactless) DE Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 DF 02 Security Limits Status (Contact) [M/Chip Advance] 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 | D3 | Additional Check Table [Mastercard] | | | 0 | 0 1 | FF | FF | FF | FF | FF | FF | FF | FF | FF |
| Default ARPC Response Code [M/Chip Advance] D7 Application Control [M/Chip Advance] D9 Application File Locator (Contactless) DE Log Data Table [M/Chip Advance] DF 02 Security Limits Status (Contact) [M/Chip Advance] DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) DF 14 Accumulator 2 Control (Contact) [M/Chip Advance] DF 14 Accumulator 2 Control (Contact) [M/Chip Advance] DF 15 Accumulator 1 Control (Contactless) [M/Chip Advance] DF 16 Accumulator 2 Control (Contact) [M/Chip Advance] | 53 | Additional Officer Table [Mastercard] | | | | | | | | | | | | | |
| 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 DF 02 Security Limits Status (Contact) [M/Chip Advance] DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] DF 14 Accumulator 2 Control (Contact) 00 | D5 | Application Control [M/Chip Advance] | 86 | 00 | 8 | 0 (| 00 | С6 | 02 | | | | | | |
| D7 Application Control [M/Chip Advance] 00 00 00 00 00 00 D9 Application File Locator (Contactless) DE Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 DF 02 Security Limits Status (Contact) [M/Chip Advance] DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] DF 14 Accumulator 2 Control (Contact) 00 | D6 | ' | 00 | 10 | | | | | | | | | | | |
| D9 Application File Locator (Contactless) DE Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 DF 02 Security Limits Status (Contact) [M/Chip Advance] DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] DF 14 Accumulator 2 Control (Contact) 00 | | | | | | | | | | | | | | | |
| DE Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 | | | 00 | 00 | 0 | 0 (| 00 | 00 | 00 | | | | | | |
| DF 02 Security Limits Status (Contact) [M/Chip Advance] DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] DF 14 Accumulator 2 Control (Contact) 00 | | | | | | | 200 | ^^ | ^^ | | 00 | | | | |
| Advance] DF 11 | | | | | 0 | υ (| υÜ | 00 | 00 | 00 | 00 | 00 | | | |
| [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] DF 14 Accumulator 2 Control (Contact) 00 | | Advance] | | | | | | | | | | | | | |
| DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] DF 14 Accumulator 2 Control (Contact) 00 | DF 11 | | C1 | | | | | | | | | | | | |
| DF 14 Accumulator 2 Control (Contact) 00 | DF 12 | Accumulator 1 Control (Contactless) | 00 | | | | | | | | | | | | |
| | DF 14 | Accumulator 2 Control (Contact) | 00 | | | | | | | | | | | | |

Data Card v6.x Tag Element name 00 Accumulator 2 Control (Contactless) DF 15 [M/Chip Advance] **DF 16** Accumulator 2 Currency Code 08 40 - USD [Mastercard] **DF 17** Accumulator 2 Currency Conversion 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 Table [Mastercard] 01 00 00 00 00 00 00 **DF 18** Accumulator 2 Lower Limit [Mastercard] Accumulator 2 Upper Limit [Mastercard] 00 00 00 00 00 00 DF 19 DF 1A Counter 1 Control (Contact) [M/Chip C1Advance1 00 DF 1B Counter 1 Control (Contactless) [M/Chip Advance] 00 DF 1D Counter 2 Control (Contact) [M/Chip Advance] 00 DF 1E Counter 2 Control (Contactless) [M/Chip Advance] 00 DF 1F Counter 2 Lower Limit [Mastercard] DF 21 Counter 2 Upper Limit [Mastercard] 00 DF 22 00 00 00 00 00 00 MTA CVM (Contact) [M/Chip Advance] DF 23 MTA CVM (Contactless) [M/Chip 00 00 00 00 00 00 Advance] MTA Currency Code [M/Chip Advance] 08 40 DF 24 00 00 00 00 00 00 DF 25 MTA NoCVM (Contact) [M/Chip Advance1 00 00 00 00 00 00 MTA NoCVM (Contactless) [M/Chip **DF 26** Advance1 99 99 **DF 27** Number Of Days Offline Limit [M/Chip Advance1 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] Accumulator 2 CVR Dependency Data 00 00 00 DF 2A (Contact) [M/Chip Advance] Accumulator 2 CVR Dependency Data 00 00 00 DF 2B (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 Counter 2 CVR Dependency Data DF 2F (Contactless) [M/Chip Advance] 01 DF 30 Interface Enabling Switch [M/Chip Advance1 **DF 35** Security Limits Status (Contactless) 00 [M/Chip Advance] **DF 37** Security Limits Status Common [M/Chip 00 Advance] 00 **CVR Issuer Discretionary Data** 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]

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

^{*} Tag value changes with card usage

4.16.3 Contact: CVM List - Mastercard, AID A000000004101002

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

4.16.4 Contact: Application Tag data, AID A000000004101002

| Tag | Element name | Data Card v6.x |
|-------|--|---|
| 42 | Issuer Identification Number (IIN) | 54 13 33 |
| 50 | Application Label | 44 45 42 49 54 20 4D 41 53 54 45 52 |
| | | 43 41 52 44 - 'DEBIT MASTERCARD' |
| 57 | Track 2 Equivalent Data | 54 13 33 00 89 09 91 30 D2 51 22 01 |
| - A | And Profess Delanas Anna at November | 14 83 59 49 00 0F |
| 5A | Application Primary Account Number (PAN) | 54 13 33 00 89 09 91 30 |
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 31 36 20 20 |
| 55.04 | Assiltantia Estimita Data | 20 20 - 'USA DEBIT/Test Card 16' 25 12 31 |
| 5F 24 | Application Expiration Date | |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 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 via |
| | | EXTERNAL AUTH command |
| | | b1 - Combined DDA / GEN AC NOT supported |
| | | BYTE 2: |
| | | b8 - EMV Contactless NOT supported |
| 84 | Dedicated File (DF) Name | A0 00 00 00 04 10 10 02 |
| 87 | Application Priority Indicator | 02 |
| 8C | Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 |
| | | 9F 45 02 9F 4C 08 9F 34 03 9F 21 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 42 01 1E 03 |
| | List | 42 03 1F 03 |
| 94 | Application File Locator (AFL) | 08 01 01 00 10 01 02 00 18 01 01 00 |
| 94 | Application File Locator (AFL) | 08 01 01 00 10 01 02 00 18 01 01 00 |
| | <u> </u> | |

Page 302

| Tag | Element name | Data Card v6.x |
|----------------|---|--|
| 9F 07 | Application Usage Control | FF CO |
| | 11 0 | 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 | Application Varsian Number | b7 - International cashback allowed |
| 9F 08 | Application Version Number | B0 50 9C 88 00 |
| 9F 0D | Issuer Action Code - Default | 00 00 00 00 00 |
| 9F 0E | Issuer Action Code - Denial | B0 70 9C 98 00 |
| 9F 0F | Issuer Action Code - Online | xx 10 xx |
| 9F 10 | Issuer Application Data [M/Chip Advance] | ** ** ** ** ** ** ** ** ** ** ** ** ** |
| 0E 11 | | 01 |
| 9F 11 9F 12 | Issuer Code Table Index Application Preferred Name | 44 65 62 69 74 20 4D 61 73 74 65 72 |
| 95 12 | Application Preferred Name | 63 61 72 64 - 'Debit Mastercardt' |
| 9F 14 | Counter 1 Lower Limit [Mastercard] | 00 |
| 9F 17 | Personal Identification Number (PIN) | 09 |
| 01 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) | 00 03 |
| 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 |
| 05.75 | A 11 11 O 1 D 1 MA 1 | 7C 14 |
| 9F 7E | Application Life Cycle Data [Mastercard] | 04 10 0B 14 00 01 00 00 12 00 02 59 A0 00 00 00 04 10 10 00 00 00 00 00 |
| | | 00 00 00 00 00 00 00 00 00 00 00 00 |
| | | 00 00 00 00 00 00 00 00 00 00 00 |
| C3 | Card Issuer Action Code (Contact) - | 00 00 00 |
| | Decline [M/Chip Advance] | |
| C4 | Card Issuer Action Code (Contact) - | 06 50 00 |
| | Default [M/Chip Advance] | |
| C5 | Card Issuer Action Code (Contact) - | 06 FB 00 |
| | Online [M/Chip Advance] | |
| C6 | PIN Try Limit [M/Chip Advance] | 09 |
| C7 | CDOL1 Related Data Length | 42 |
| | [Mastercard] | 1104 |
| C8 | CRM Country Code [Mastercard] | 08 40 - USA |
| C9 | Accumulator 1 Currency Code | 08 40 - USD |
| C 1 | [Mastercard] | 00 00 00 00 00 00 |
| CA | Accumulator 1 Lower Limit [Mastercard] | 00 00 00 00 00 00 |
| CB | Accumulator 1 Upper Limit [Mastercard] | 00 00 00 00 |
| CD | Card Issuer Action Code (Contactless) - | |
| CE | Default [M/Chip Advance] | 00 00 00 |
| CE | Card Issuer Action Code (Contactless) - | |
| CF | Online [M/Chip Advance] Card Issuer Action Code (Contactless) - | 00 00 00 |
| OF | Decline [M/Chip Advance] | |
| L | Decime [w/omp Advance] | |

Tag Element name Data Card v6.x Accumulator 1 Currency Conversion 08 40 00 01 01 08 40 00 01 01 08 40 D1 00 01 01 08 40 00 01 01 08 40 00 01 Table [Mastercard] 01 00 00 00 FF FF FF FF FF FF FF FF Additional Check Table [Mastercard] 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] Accumulator 2 Control (Contact) 00 **DF 14** [M/Chip Advance] 00 **DF 15** Accumulator 2 Control (Contactless) [M/Chip Advance] Accumulator 2 Currency Code DF 16 08 40 - USD [Mastercard] **DF 17** Accumulator 2 Currency Conversion 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 Table [Mastercard] 01 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 99 99 **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 v6.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] Read Record Filter (Contactless) DF 40 [M/Chip Advance] DF 41 DS Management Control [M/Chip 20 Advance]

4.16.5 Contact: CVM List - Mastercard, AID A0000000042203

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

4.16.6 Contact: Application Tag data, AID A0000000042203

| Tag | Element name | Data Card v6.x |
|-------|-------------------------------------|-------------------------------------|
| 42 | Issuer Identification Number (IIN) | 54 13 33 |
| 50 | Application Label | 55 53 20 4D 41 45 53 54 52 4F 20 20 |
| | | 20 20 20 - 'US MAESTRO |
| 57 | Track 2 Equivalent Data | 54 13 33 00 89 09 91 30 D2 51 22 01 |
| | - | 14 83 59 49 00 OF |
| 5A | Application Primary Account Number | 54 13 33 00 89 09 91 30 |
| | (PAN) | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 31 36 20 20 |
| | | 20 20 - 'USA DEBIT/Test Card 16' |
| 5F 24 | Application Expiration Date | 25 12 31 |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 01 |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' |

Page 305

^{*} Tag value changes with card usage

| Tag | Element name | Data Card v6.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 |
| | | b1 - Combined DDA / GEN AC NOT supported BYTE 2: |
| | | b8 - EMV Contactless NOT supported |
| 84 | Dedicated File (DF) Name | A0 00 00 00 04 22 03 |
| 87 | Application Priority Indicator | 03 |
| 8C | Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 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) | 0 |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 05 42 03 |
| - | List | 1F 03 |
| 94 | Application File Locator (AFL) | 08 01 01 00 10 01 02 00 20 01 01 00 |
| 94 | Application File Locator (AFL) | 08 01 01 00 10 01 02 00 20 01 01 00 |
| 9F 07 | Application Usage Control | FF 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 |
| 25.00 | | 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 9F 0F | Issuer Action Code - Denial Issuer Action Code - Online | B0 70 9C 98 00 |
| 9F 0F | | xx 10 xx |
| 91 10 | Issuer Application Data [M/Chip Advance] | 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 20 20 |
| | 11 | 20 20 20 - 'US Maestro' |
| 9F 14 | Counter 1 Lower Limit [Mastercard] | 00 |
| 9F 17 | Personal Identification Number (PIN) | 09 |
| | Try Counter | |
| 9F 23 | Counter 1 Upper Limit [Mastercard] | 00 |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | 00 04 |
| 9F 42 | Application Currency Code | 08 40 - USD 0B 0A |
| 9F 4D 9F 4F | Transaction Log Entry | 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F |
| 95 45 | 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 12 00 02 59 |
| | | A0 00 00 00 04 10 10 00 00 00 00 00 |
| | | 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| L | | 00 00 00 00 00 00 00 00 00 00 00 |

Card v6.x Tag Element name Data 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] PIN Try Limit [M/Chip Advance] 09 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] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 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] 00 00 00 CF Card Issuer Action Code (Contactless) -Decline [M/Chip Advance] 08 40 00 01 01 08 40 00 01 01 08 40 Accumulator 1 Currency Conversion D1 00 01 01 08 40 00 01 01 08 40 00 01 Table [Mastercard] 01 D3 00 00 00 FF FF FF FF FF FF FF FF Additional Check Table [Mastercard] FF FF FF FF FF 00 00 00 00 00 00 D5 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 00 DF 02 Security Limits Status (Contact) [M/Chip Advance1 C1 Accumulator 1 Control (Contact) DF 11 [M/Chip Advance] 00 DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] **DF 14** Accumulator 2 Control (Contact) 00 [M/Chip Advance] Accumulator 2 Control (Contactless) 00 DF 15 [M/Chip Advance] DF 16 Accumulator 2 Currency Code 08 40 - USD [Mastercard] 08 40 00 01 01 08 40 00 01 01 08 40 **DF 17** Accumulator 2 Currency Conversion 00 01 01 08 40 00 01 01 08 40 00 01 Table [Mastercard] 01 Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 DF 18 Accumulator 2 Upper Limit [Mastercard] 00 00 00 00 00 00 DF 19 C1 DF 1A Counter 1 Control (Contact) [M/Chip Advance] 00 DF 1B Counter 1 Control (Contactless) [M/Chip Advance] Counter 2 Control (Contact) [M/Chip 00 DF 1D Advance] 00 Counter 2 Control (Contactless) [M/Chip DF 1E Advance1 00 Counter 2 Lower Limit [Mastercard] DF 1F 00 DF 21 Counter 2 Upper Limit [Mastercard]

| Tog | Floment name | Data | Cardyfy |
|--------|---------------------------------------|---------------------------|-----------|
| Tag | Element name | Data 00 00 00 00 00 00 | Card v6.x |
| 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 | |
| DE 0.4 | Advance] | 00.40 | |
| 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 | |
| | Advance] | | |
| DF 27 | Number Of Days Offline Limit [M/Chip | 99 99 | |
| | Advance] | | |
| DF 28 | Accumulator 1 CVR Dependency Data | 00 00 00 | |
| | (Contact) [M/Chip Advance] | | |
| DF 29 | Accumulator 1 CVR Dependency Data | 00 00 00 | |
| | (Contactless) [M/Chip Advance] | | |
| DF 2A | Accumulator 2 CVR Dependency Data | 00 00 00 | |
| | (Contact) [M/Chip Advance] | | |
| DF 2B | Accumulator 2 CVR Dependency Data | 00 00 00 | |
| | (Contactless) [M/Chip Advance] | | |
| DF 2C | Counter 1 CVR Dependency Data | 00 00 00 | |
| | (Contact) [M/Chip Advance] | | |
| 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) | | |
| | [M/Chip Advance] | | |
| DF 41 | DS Management Control [M/Chip | 20 | |
| | Advance] | | |

^{*} 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 | l |
| 21 | 00010101 | 15 | NAK | 65 | 01000001 | 41 | Α | 109 | 01101101 | 6D | m |
| 22 | 00010110 | 16 | SYM | 66 | 01000010 | 42 | В | 110 | 01101110 | 6E | n |
| 23 | 00010111 | 17 | ETB | 67 | 01000011 | 43 | С | 111 | 01101111 | 6F | 0 |
| 24 | 00011000 | 18 | CAN | 68 | 01000100 | 44 | D | 112 | 01110000 | 70 | р |
| 25 | 00011001 | 19 | EM | 69 | 01000101 | 45 | E F | 113 | 01110001 | 71 | q |
| 26 27 | 00011010 | 1A 1B | SUB | 70 71 | 01000110 | 46 47 | G | 114 115 | 01110010 | 72 73 | r |
| 28 | 00011011 | 1C | FS | 72 | 01000111 | 48 | Н | 116 | 01110011 | 74 | s t |
| 29 | 00011100 | 1D | GS | 73 | 01001000 | 49 | ¨ | 117 | 01110100 | 75 | u |
| 30 | 00011101 | 1E | RS | 74 | 01001001 | 4A | J | 118 | 01110111 | 76 | V |
| 31 | 00011111 | 1F | US | 75 | 01001010 | 4B | K | 119 | 01110111 | 77 | w |
| 32 | 00100000 | 20 | SP | 76 | 010011100 | 4C | L | 120 | 01111000 | 78 | x |
| 33 | 00100001 | 21 | ! | 77 | 01001101 | 4D | M | 121 | 01111001 | 79 | у |
| 34 | 00100010 | 22 | " | 78 | 01001110 | 4E | N | 122 | 01111010 | 7A | Z |
| 35 | 00100011 | 23 | # | 79 | 01001111 | 4F | 0 | 123 | 01111011 | 7B | { |
| 36 | 00100100 | 24 | \$ | 80 | 01010000 | 50 | Р | 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 | ٧ | | | | |
| 43 | 00101011 | 2B | + | 87 | 01010111 | 57 | W | | | | |