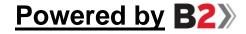


# USA Debit EMV™ Test Plan

Version 8.00

December 2021



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# **Revision History**

Version	Date	Revisions		
1.00	December 09, 2017	Initial document release		
1.10	December 14, 2017	Recommended transaction \$value updated for cards 13, 15, 16		
1.20	May 30, 2018	Renumbered Test Cases:  CD.MMCL.C03-T01 corrected to CD.MCCL.C03-T01  CD.MMCL.C03-T02 became CD.MCCL.C03-T03  Updated Test Cases:  CD.MCCL.C03-T01  CD.MCCL.C08-T01  CD.MCCL.C11-T01  CD.MCCL.C11-T03  New Test Cases:  CD.MCCL.C03-T02		
1.30	June 1, 2018	Removed Test Cases:  CD.MCCL.C08-T03  CD.MCCL.C12-T03  CD.MCCL.C12-T04  Renumbered Test cases:  CD.MCCL.C08-T04 became CD.MCCL.C08-T03  Updated Test Cases:  CD.MCCL.C08-T02  CD.MCCL.C08-T03  CD.MCCL.C08-T03  CD.MCCL.C09-T01  Card version numbers (profile table, Tag data) updated to match physical card version - all are currently v4.0.		
2.00	August 20, 2018	TC03: updated to v5.0 - Tag 57 modified		
3.00	September 27, 2018	<ul> <li>Tag 82 (AIP) updated on non-Visa cards</li> <li>Discover cards (TC12, TC13) - Expiry date changed to 23/12</li> <li>DNA Card (TC14) - Expiry date changed to 25/12</li> </ul>		
3.10	December 13, 2018	TC03: documentation updated to reflect Dual-Funding		
4.00	March 11, 2019	TC03: updated to v6.0 - Discretionary data modified		
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	<ul> <li>TC15: MTI (Contactless) tags 9F52, 9F54, 9F55, 9F56, 9F57 revealed.</li> </ul>		
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		

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	Test Ca 4.11.1 4.11.2 4.11.3 4.11.4 4.11.5 4.11.6 4.11.7 4.11.8 Test Ca 4.12.1 4.12.2	Contact: CVM List - Maestro debit, AID A00000004220301  Contact: Application Tag data, AID A000000004220301  Contact: Application Tag data, AID A0000000043060  Contact: CVM List - Maestro debit, AID A000000043060  Contact: Application Tag data, AID A00000000420301  Contact: CVM List - Maestro debit, AID A000000043060  Contact: Application Tag data, AID A000000043060  Contact: CVM List - U.S. Savings debit, AID A000000004220302  Contact: Application Tag data, AID A000000004220302  Contact: Application Tag data, AID A000000004220302  Contact: CVM List - Discover, DI, 2-AID (U.S. Debit, Discover), Eng/Spa/Fre, USA, USD  Contact: Application Tag data, AID A0000001524010  Contact: Application Tag data, AID A0000001524010	268 268 271 272 275 275 278 282 282 282
	Test Ca 4.11.1 4.11.2 4.11.3 4.11.4 4.11.5 4.11.6 4.11.7 4.11.8 Test Ca 4.12.1 4.12.2 4.12.3	Contact: CVM List - Maestro debit, AID A00000004220301	268 268 271 272 275 275 278 282 282 284 284
	Test Ca 4.11.1 4.11.2 4.11.3 4.11.4 4.11.5 4.11.6 4.11.7 4.11.8 Test Ca 4.12.1 4.12.2 4.12.3 4.12.4	Contact: CVM List - Maestro debit, AID A00000004220301	268 268 271 272 275 278 278 282 282 284 284 284
	Test Ca 4.11.1 4.11.2 4.11.3 4.11.4 4.11.5 4.11.6 4.11.7 4.11.8 Test Ca 4.12.1 4.12.2 4.12.3 4.12.4 4.12.5	Contact: CVM List - Maestro debit, AID A00000004220301 Contact: Application Tag data, AID A000000004220301 Contact: Application Tag data, AID A000000004220301 Contact: Application Tag data, AID A000000004220301 Contact: Application Tag data, AID A0000000043060 Contact: CVM List - Maestro debit, AID A000000043060 Contact: Application Tag data, AID A0000000043060 Contact: CVM List - U.S. Savings debit, AID A000000004220302 Contact: Application Tag data, AID A000000004220302 Contact: Application Tag data, AID A000000004220302 Contact: CVM List - Discover U.S. Debit, Discover), Eng/Spa/Fre, USA, USD Contact: Application Tag data, AID A0000001524010 Contact: CVM List - Discover Debit, AID A0000001523010 Contact: Application Tag data, AID A0000001523010 Contact: Application Tag data, AID A0000001523010 CONTACT: CVM List - Discover U.S. Debit, AID A0000001524010 (D-PAS EMV)	268 268 271 272 275 278 278 282 282 284 284 286 286
	Test Ca 4.11.1 4.11.2 4.11.3 4.11.4 4.11.5 4.11.6 4.11.7 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 - Maestro debit, AID A00000004220301	268 268 271 272 275 275 278 282 282 284 284 286 286
4.12	Test Ca 4.11.1 4.11.2 4.11.3 4.11.4 4.11.5 4.11.6 4.11.7 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 - Maestro debit, AID A00000004220301	268 268 271 275 275 278 282 282 284 286 286 288
4.12	Test Ca 4.11.1 4.11.2 4.11.3 4.11.4 4.11.5 4.11.6 4.11.7 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 - Masterc debit, AID A000000041010	268 268 271 272 275 278 282 282 284 284 286 286 288 290
4.12	Test Ca 4.11.1 4.11.2 4.11.3 4.11.4 4.11.5 4.11.6 4.11.7 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. checking, AID A000000004220301	268 268 271 272 275 278 282 282 284 284 286 288 290 290
4.12	Test Ca 4.11.1 4.11.2 4.11.3 4.11.4 4.11.5 4.11.6 4.11.7 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 - Mastero debit, AID A00000004220301	268 268 271 275 275 278 282 282 284 286 286 288 290 290 292



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# **Chapter 1 - Overview**

# 1.1 USA Debit EMV Test Plan - Purpose

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

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

# 1.2 Target Audience

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

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

# 1.3 System Requirements

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

# **Chapter 2 - Implementing U.S. Debit**

### 2.1 U.S. Common Debit Scenarios

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

U.S. Common Debit AIDs

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

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

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

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

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

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

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

There are three possible situations that must be handled:

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

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

- The EMV POS Solution should assume that the AIDs with the same IIN access the same underlying funding account and therefore can remove one of those AIDs from the Candidate List.
- For contact transactions, the EMV POS Solution should present the remaining Candidate List choices to the cardholder in accordance with Final Selection processing (section 1.4.3 below).
- For contactless transactions, the EMV POS Solution should automatically select the AID in the Candidate List that has the highest Application Priority Indicator (Tag 87) value.
- 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. COMMING	U.S. Common Debit Scenarios					
Scenario One	AID Care		IIN Tag 42 Ile debit funding est Cards 01, 05			
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 - A000000042203	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"

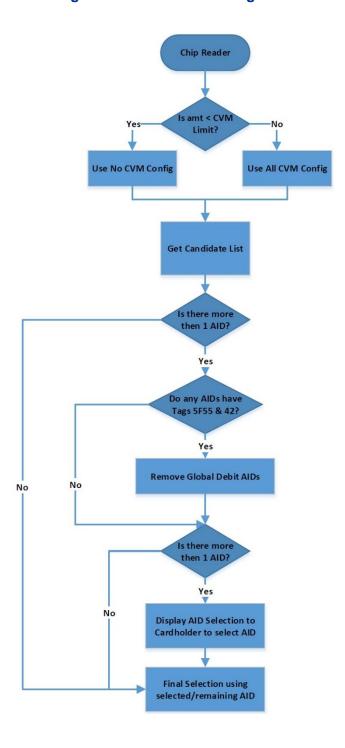
### Set the Processing Code:

- 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

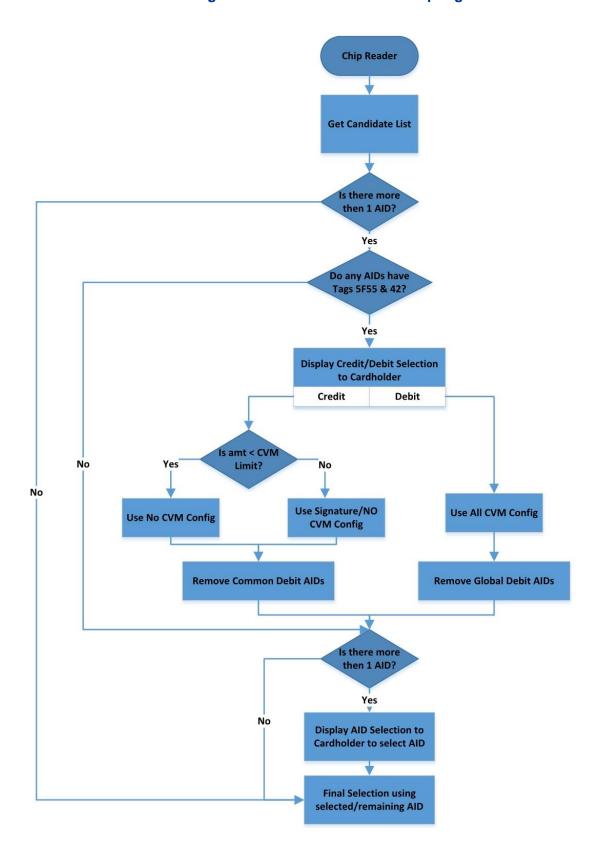
The kernel can now select the AID on the chip and Final Selection ends.

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 5.0 of Test Card 15, this Interac Flash card has a BIN range of '001202'. 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 '001202' 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
- Does <u>not</u> prompt for Application Selection
- 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, A0000000980840
- 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: 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:

#### 3.3.12.28 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
- 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. "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 '001202' BIN range. These cards are supported by all Canadian processors but are not yet supported by all U.S. and international processors.

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

#### RECOMMENDATION

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

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

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

Visit: b2ps.com/b2-university



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











	Test Card 01	Test Card 02	Test Card 03
Brand	Visa	Visa	Visa
Description (Card - Types)	Global / U.S. Common	U.S. Common	Credit / Debit / U.S. Common, Dual- Funding
AID list	A000000031010 A000000980840	A0000000980840	A00000003101001 A00000003101002 A0000000980840
PAN on plastic	4761 7390 0101 0135	4761 7390 0101 0135	4761 7390 0101 0176
Expiry Date	12/2024	12/2024	12/2024
Service Code	201	201	201
Interface	Contact, Contactless, MSR	Contact, MSR	Contact, MSR
CVM (Contact) Default Condition: 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 A0000000042203 D0562222	A0000000041010 A0000000043060 A0000000042203
PAN on plastic	5413 3300 8902 0060	5413 3300 8909 9007	5413 3300 8902 0060
Expiry Date	12/2025	12/2025	12/2025
Service Code	201	220	201
Interface	Contact, MSR	Contact, MSR	Contact, MSR
CVM (Contact) Default Condition: 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 0200 00001
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	v5.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'
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

<sup>\*</sup> Tag value changes with card usage

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## 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 - '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
-		•

<sup>\*</sup> Tag value changes with card usage

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

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	56 49 53 41 20 44 45 42 49 54 20 20
		20 20 20 20 - 'VISA DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 41 22 01
	·	19 55 94 58 00 00 1F
5A	Application Primary Account Number	47 61 73 90 01 01 01 35
	(PAN)	
5F 24	Application Expiration Date	24 12 31
5F 28	Issuer Country Code	08 40
5F 2D	Language Preference	65 6E
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VCPS]	00 00
		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
0.4	Dedicated File (DF) Name	b7 - Is NOT Mobile handset  A0 00 00 00 03 10 10
84	Dedicated File (DF) Name	01
87	Application Priority Indicator	08 03 03 00
94	Application File Locator (AFL)	C0 80
9F 07	Application Usage Control [VCPS]	BYTE 1:
		b8 - Domestic cash trans, valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods NOT valid
		b5 - International goods NOT valid
		b4 - Domestic services NOT valid
		b3 - International services NOT valid
		b2 - ATMs NOT valid b1 - non-ATM terminals NOT valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback NOT allowed
9F 10	Issuer Application Data [VCPS 2.2]	xx xx 12 xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	56 69 73 61 20 44 65 62 69 74 20 20
		20 20 20 - 'Visa Debit'
9F 13	Last Online Application Transaction	xx xx *
	Counter (ATC) Register	
9F 17	Personal Identification Number (PIN)	03
	Try Counter	
9F 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 Cryptogram (AC)	38 39 33 30 33 xx xx xx xx xx xx xx xx *
9F 26	Application Cryptogram (AC)	80
9F 27	Cryptogram Information Data (CID)	
9F 36	Application Transaction Counter (ATC)	XX XX *
9F 38	Processing Options Data Object List	9F 66 04 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
05.45	(PDOL)	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
9F 4F	Transaction Log Format	1A 02 95 05 9C 01 9F 27 01
9F 51	Application Currency Code [VSDC]	08 40 - USD
51 51	Application ouriency code [VODO]	11 11 005

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]  9F 60   Card Authentication Related Data [qVSDC]  9F 60   Card Authentication Related Data [qVSDC]  9F 60   Card Transaction State Processing at POS  9F 60   Card Transaction Qualifiers [qVSDC]  9F 61   Form Factor Indicator [qVSDC]  9F 62   Counters Data Template  9F 63   Amounts Data Template  9F 54   Application Internal Data Template  9F 55   Application Internal Data Template  9F 56   Application Internal Data Template  9F 57   Authentication Internal Data Template  9F 58   Application Internal Data Template  9F 59   Application Internal Data Template  9F 50   Outher State Processing Amount State Processing At Position	05.50	Application Default Action (VODO VIO	00 00 00 00
9F 5A         Application Program Identifier         11 08 40 08 40           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 00 00 00 00 00 0	9F 52	Application Default Action [VSDC VIS 1.6]	00 00 00 00
9F 5D	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]  01 00 00 00 00 00 00 00  BYTE 1:  08 - 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]  9F 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 50 AIP/AFL Entries Template		Available Offline Spending Amount	
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 Cashback Transactions b1 - Is valid for contactless ATM transactions BYTE 2: b8 - Consumer Device CVM NOT performed b7 - Card does NOT Support Issuer Update Processing at POS  9F 6C Card Transaction Qualifiers [qVSDC VCPS 2.2]  9F 6E Form Factor Indicator [qVSDC]  8F 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	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 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 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

<sup>\*</sup> Tag value changes with card usage

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

Tag	Element name	Data Card v4	.X
42	Issuer Identification Number (IIN)	47 61 73	
50	Application Label	56 49 53 41 20 44 45 42 49 54 20 2	0
		20 20 20 20 - 'VISA DEBIT'	
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 41 22 0	1
	•	19 55 94 58 00 00 1F	
5F 20	Cardholder Name	43 41 52 44 48 4F 4C 44 45 52 2F 5	6
		49 53 41 20 20 20 20 20 20 20 20 20 2	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'	

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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		

<sup>\*</sup> 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

<sup>\*</sup> 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

Track 2 Equivalent Data	Tag	Element name	Data Card v7.x
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 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 b7 - Cardholder verification supported b7 - Cardholder verification supported b7 - Cardholder verification supported b7 - Combined DDA / GEN AC NOT supported b7 - Is NOT Mobile handset           84         Dedicated File (DF) Name         A0 00 00 00 03 10 10 01           87         Application Priority Indicator         01           80         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           80         Card Risk Management Data Object List 2 (CDOL2)         2 (CDOL2)	50	Application Label	56 49 53 41 20 43 52 45 44 49 54 20
14 83 53 94 00 00 0F			
SA	57	Track 2 Equivalent Data	
SF 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'			
Table   Tabl	5A		
20 20 - 'USA DEBIT/Test Card 03'	5F 20	Cardholder Name	
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 b6 - Offline DDA NOT supported b7 - Is man authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b7 - Is NOT mobile handset           84         Dedicated File (DF) Name         A0 00 00 00 03 10 10 01           87         Application Priority Indicator         01           8C         Card Risk Management Data Object List 1 (CDOL1)         9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04           8D         Card Risk Management Data Object List 2 (CDOL2)         8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A			
SF 28   Issuer Country Code   08 40			
SF 2D			_
Service Code	5F 28	Issuer Country Code	
SF 34 Application PAN Sequence Number  82 Application Interchange Profile [VIS]  83 Application Interchange Profile [VIS]  84 Application PAN Sequence Number  85 Application Interchange Profile [VIS]  86 Application Interchange Profile [VIS]  87 Application Pan Sequence Number  88 Dedicated File (DF) Name  89 Application Priority Indicator  80 Card Risk Management Data Object List  1 (CDOL1)  80 Card Risk Management Data Object List  2 (CDOL2)  81 Object List  2 (CDOL2)  80 Dedicated File (DF) Name  80 Octobre Pan Sequence Number  80 Dedicated File (DF) Name  81 Application Priority Indicator  82 Card Risk Management Data Object List  84 Octobre Pan Sequence Number  85 Octobre Pan Sequence Number  86 Octobre Pan Sequence Number  87 Application Priority Indicator  88 Octobre Pan Sequence Number  98 Octobre Pan Sequence Number  99 Octobre Sequence Number  99 Octobre Sequence Number  99 Octobre Sequence Number  99 Octobre Sequence Number  90 Octobre Sequence Not Supported  90 Octobre Sequence Not S	5F 2D	Language Preference	
Application Interchange Profile [VIS]  82 Application Interchange Profile [VIS]  BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset  84 Dedicated File (DF) Name 80 00 00 00 03 10 10 01  87 Application Priority Indicator  8C Card Risk Management Data Object List 1 (CDOL1)  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	5F 30	Service Code	02 01
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 01  87 Application Priority Indicator  8C Card Risk Management Data Object List 1 (CDOL1)  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	5F 34	Application PAN Sequence Number	01
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	82	Application Interchange Profile [VIS]	
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 01  87 Application Priority Indicator  8C Card Risk Management Data Object List 1 (CDOL1)  8D Card Risk Management Data Object List 2 (CDOL2)  8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 05 5F 2A 02 9A 03 9C 01 9F 37 04 91			= · · = · ·
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 01  87 Application Priority Indicator  8C Card Risk Management Data Object List 1 (CDOL1)  8D Card Risk Management Data Object List 2 (CDOL2)  8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A			
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 01  87 Application Priority Indicator  8C Card Risk Management Data Object List 1 (CDOL1)  8D Card Risk Management Data Object List 2 (CDOL2)  8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 05 5F 2A 02 9A 03 9C 01 9F 37 04 91			
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			
EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset  84			
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  84 Dedicated File (DF) Name			
B8 - Use for Visa NOT supported b7 - Is NOT Mobile handset   B4			
B7 - Is NOT Mobile handset   84   Dedicated File (DF) Name   A0 00 00 00 03 10 10 01   87   Application Priority Indicator   01   8C   Card Risk Management Data Object List 1 (CDOL1)   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 37 04 91 03 06 9F 1A 02 95 37 04 91 04   04 04 05 05 05 05 05 05 05 05 05 06 05 05 05 05 05 05 05 05 05 05 05 05 05			
87			
8C	84	Dedicated File (DF) Name	A0 00 00 00 03 10 10 01
1 (CDOL1)  2A 02 9A 03 9C 01 9F 37 04  8D Card Risk Management Data Object List 2 (CDOL2)  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	87	Application Priority Indicator	01
1 (CDOL1)  2A 02 9A 03 9C 01 9F 37 04  8D Card Risk Management Data Object List 2 (CDOL2)  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	8C	· · · · · · · · · · · · · · · · · · ·	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
8D Card Risk Management Data Object List 2 (CDOL2)  8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A		,	2A 02 9A 03 9C 01 9F 37 04
2 (CDOL2)  05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A	8D		8A 02 9F 02 06 9F 03 06 9F 1A 02 95
OA			05 5F 2A 02 9A 03 9C 01 9F 37 04 91
OF Conduction Varification Mathead (CVM) 00 00 00 00 00 00 00 02 01 42 04		,	
	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		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.	, pp. cauch coage control	BYTE 1:
		b8 - Domestic cash trans. valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback 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
05.44	(PDOL)	02
9F 44	Application Currency Exponent	
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
91 32	1.5]	
9F 56	Issuer Authentication Indicator [VSDC]	00
9F 57		08 40 - USA
BF 55	Issuer Country Code [VSDC]	00 40 00/1
BF 56	Contactless Counters Data Template Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59		DF 11 0B 10 00 00 00 00 00 00 00 00
DF 39	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 01
BF 5B	Application Internal Data Template	DF 01 02 C0 00 DF 02 01 F1

<sup>\*</sup> 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
5F 2D	Language Preference	65 6E
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
84	Dedicated File (DF) Name	b7 - Is NOT Mobile handset  A0 00 00 00 03 10 10 02
87		02
8C	Application Priority Indicator	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	Card Risk Management Data Object List 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	
OF FC	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

<sup>\*</sup> 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
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

<sup>\*</sup> 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 -
	T 105 : 1 : 5 :	'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 C0 36 B0 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

<sup>\*</sup> Tag value changes with card usage

# 4.5 Test Card 05 - Mastercard, DI, 2-AID (Mastercard Debit+US Debit), English, USA, USD

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

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

## 4.5.1 Contact: CVM List - Mastercard debit, AID A000000041010

Cardholder Verification Method List ('4201 0205 5E03 4203 1F00')					
CVM	Verification Method	ethod Conditions			
1	Online PIN	Unattended Cash	Next CVM		
2	Online PIN	Purchase with Cashback	Fail		
3	Signature (paper)	gnature (paper) Terminal supports CVM type			
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
C4	Decline [M/Chip Advance]	06 50 00
C4	Card Issuer Action Code (Contact) -	00 30 00
05	Default [M/Chip Advance]	06 77 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 DF<sub>2</sub>C 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	Verification Method	ion Method Conditions				
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

<sup>\*</sup> 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 DF<sub>2</sub>C (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)

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

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

Tag	Element name	Data Card v6.x
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	4D 41 53 54 45 52 43 41 52 44 20 44
		45 42 49 54 - 'MASTERCARD DEBIT'
56	Track 1 Equivalent Data [Mastercard]	42 35 34 31 33 33 33 30 30 38 39 30
		39 39 31 33 30 5E 20 2F 5E 32 35 31 32 32 30 31 31 34 38 33 35 39 34 39
		30 30 30 30 30 30 30 30 30 30 30 30
		30 30 30 30 30
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

<sup>\*</sup> 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	M 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'

<sup>\*</sup> 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	ta								Ca	rd ۱	/5.x
D3	Additional Check Table [Mastercard]	00	00					FF	FF	FF	FF	FF	FF
		FF	$\mathbf{F}\mathbf{F}$	$\mathbf{F}\mathbf{F}$	$\mathbf{F}\mathbf{F}$	$\mathbf{F}\mathbf{F}$	FF						
D5	Application Control [M/Chip Advance]	80	00	80	00	C6	02						
D6	Default ARPC Response Code [M/Chip	00	10										
	Advance]												
D7	Application Control [M/Chip Advance]	00	00	80	00	<b>E</b> 6	02						
DF 02	Security Limits Status (Contact) [M/Chip	00											
	Advance]												

<sup>\*</sup> 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	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	

Tag	Element name	Data Card v5.x
82	Application Interchange Profile	18 00
02	, ipplication interestange i rome	BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported via
		External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2: b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 30 60 D0 56 11 11
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 (00021)	9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
0.	2 (CDOL2)	00 00 00 00 00 00 00 00 41 03 02 03
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 41 03 02 03
94	Application File Locator (AFL)	08 01 01 00
9F 07	Application Usage Control	FF CO
01 07	Application esage control	BYTE 1:
		b8 - Domestic cash trans. valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0A	Application Selection Registered	00 01 01 01
01 071	Proprietary Data	
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 10	Issuer Application Data [M/Chip	xx 14 xx
	Advance]	xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 65 73 74 72 6F 31 20 20 20 20
		20 20 20 - 'Maestro1'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	09
05.00	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	09 78 - EUR 0B 0A
9F 4D	Transaction Log Entry	
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14
		1

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 DF<sub>2</sub>C (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

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#### 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

Cardho	Cardholder Verification Method List ('4103 0203 0000')			
CVM	1 Verification Method Conditions If unsuccessful		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	

<sup>\*</sup> 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 restile	
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 DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported BYTE 2: b8 - EMV mode NOT supported DDA / GEN AC NOT supported DDA / G			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 - DO 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
b3 - Issuer authentication NOT supported via External Auth command 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 PF 08 Application Selection Registered PF 08 Issuer Action Code - Default PF 08 Issuer Action Code - Denial  9F 08 Issuer Action Code - Denial  98 01 01 00  9F CE Issuer Action (AFL)  98 01 01 00  FF 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 b7 - International services valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Internation	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 DF<sub>2</sub>C 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]		

<sup>\*</sup> 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 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 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

<sup>\*</sup> 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 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 DF<sub>2</sub>C 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	

<sup>\*</sup> 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 - 'US CHECKING'
57	Track 2 Equivalent Data	54 13 33 00 89 09 90 07 D2 51 22 20
		14 83 59 49 00 OF
5A	Application Primary Account Number	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'

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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   cashback allowed   c			
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

<sup>\*</sup> Tag value changes with card usage

4	Fail CVM Processing	Always	Fail
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## 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
FF 0.4	Application Fundation Date	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 DF<sub>2</sub>C 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]		

<sup>\*</sup> 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

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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
		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 Rick Management Date Chicat List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
טט	Card Risk Management Data Object List 2 (CDOL2)	52 511 511 52 55 55 5E 57 54 5E 4C 00
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 41 03 42 03
OE	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
95 07	Application Usage Control	BYTE 1:
		b8 - Domestic cash trans. valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback 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 - 'Mastercard'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	09
	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
		36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14

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

<sup>\*</sup> 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 Fundantian Data	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
	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
05	2 (CDOL2)	00 00 00 00 00 00 00 41 03 00 03
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 41 03 02 03 00 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
05.00	A - Partha Mark No. 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

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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 DF<sub>2</sub>C 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
	•	

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<sup>\*</sup> Tag value changes with card usage

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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 OF	
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 91 30	

<sup>\*</sup> 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

<sup>\*</sup> 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'

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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]

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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	

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<sup>\*</sup> 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
		<ul><li>b6 - Domestic goods valid</li><li>b5 - International goods valid</li><li>b4 - Domestic services valid</li></ul>
		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 DF<sub>2</sub>C 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 - '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

<sup>\*</sup> 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

<sup>\*</sup> 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
05.44	Advance]	
9F 11	Issuer Code Table Index	01 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]	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
		ı

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>		

<sup>\*</sup> 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

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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

<sup>\*</sup> 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

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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

<sup>\*</sup> 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'	5F 2D		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 by 10 Domestic goods valid  90 Domestic goods valid			
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 *
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 *

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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

<sup>\*</sup> 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
05.45	(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
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
00	[DPAS]	
СВ	Lower Consecutive Offline Limit (LCOL)	00
00	[DPAS]	00
CC	Upper Consecutive Offline Transaction	
0.5	Limit (UCOL) [DPAS]	00
CD	Number of Consecutive Offline	00
0.5	Transactions (NCOT) [DPAS]	00 00 00 00 00
CE	Cumulative Offline Amount [DPAS]	00 00 00 00 00 00
D0	Issuer Application Data ObjectList	
	(IADOL) [DPAS]	
D1	Offline Balance [DPAS]	00 00 00 00 00 00
D2	CRM Country Code [DPAS]	08 40 - USA
D3	CRM Currency Code [DPAS]	08 40 - USD
D4	CVM-Accumulator [DPAS]	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	

<sup>\*</sup> 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

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

#### 4.14.2 Contact: Application Tag data, AID A0000006200620

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

<sup>\*</sup> 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 v4.x
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'
57	Track 2 Equivalent Data	00 12 02 00 00 00 1D 28 12 22 00 01 23 00 00 00 02 00 0F
5A	Application Primary Account Number (PAN)	00 12 02 00 00 00 1F
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'

<sup>\*</sup> Tag value changes with card usage

Tag	Element name	Data Card v4.x
82	Application Interchange Profile	19 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported
		b1 - Combined DDA / GEN AC supported
		BYTE 2:
		b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 45 02
		9F 4C 08 9F 34 03
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 04 03 01 03
	List	02 03
8F	Certification Authority Public Key Index	07
90	Issuer Public Key Certificate	1D 20 2E 58 DD 49 87 AC F7 62 08 02
		0E 4A D4 33 E3 E1 97 2B 37 E2 23 1B
		2B 8D 3C 46 BB 61 9C 50 DC E8 03 25 54 93 C3 45 7B 98 05 B0 B0 FF E4 22
		9D 07 32 F6 3E C0 FA 8A 2C 93 95 7C
		23 BB 6F DB 59 16 17 B8 C1 AB 27 D6
		93 46 32 D8 0D 78 1E 6A CF 63 76 01
		DE 6E 25 69 4A A7 C6 2A 68 80 B7 C8
		93 A0 EB 0D 0B CD 50 64 76 4E 9E 8E
		C6 95 1B D1 FF DE 43 81 1D 6D 27 A8 CE 5C 6F 03 9D 38 EF 20 EC F7 1C E8
		36 AB E3 85 04 0E 98 B1 A8 06 82 32
		62 6F 4F D6 33 BF 5B EE 6F 76 C4 73
		12 7F 96 8C 6F A4 65 26 AC FB D7 68
		CF 04 63 BE ED 63 5A 23 4B 87 84 8A
		CO 9B A4 D3 77 2A 75 E4 E7 3E 14 6A
		C6 A2 74 7D 1D 9C EC AB F2 25 49 5D
		61 E7 48 5A 92 F1 60 AE B7 5D CA 55 53 57 F7 67 58 71 DC C3 93 A5 7B 53
		B4 DB E8 72 CB F1 60 66 01 B0 59 1E
		48 98 2F 20 55 42 C7 25
94	Application File Locator (AFL)	08 01 04 00 10 01 01 01 18 01 04 01
9F 07	Application Usage Control	FF 00
	1.	BYTE 1:
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:
1		b8 - Domestic cashback NOT allowed
9F 08	Application Version Number	b7 - International cashback NOT allowed 00 02
	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	FC F8 FC F8 70
9F 0F	Issuer Action Code - Online	xx 01 xx
9F 10	Issuer Application Data [InteracFlash]	xx
9F 13	Last Online Application Transaction	xx xx *
	Counter (ATC) Register	

Card v4.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 DO 55 5D 4F 4A A8 6A AF 82 DO 0D D6 3E E3 2B 9F 83 98 F9 A9 19 C1 34 B7 24 21 63 1F DF 57 FD A2 43 29 94 2B D4 72 94 90 12 9E 37 64 8D 19 91 04 A6 F6 1A E8 D1 45 7F 4D DD 0A C5 2D 63 5F 5E DC DA DD 9F F9 2A 44 CE A4 C2 F0 FD C7 FE EA 07 3E 69 07 F5 BC BF F3 0B 84 D5 57 9B 8A 4C 24 44 E8 55 27 65 6F 3A D5 F2 D6 43 FB 22 8D 83 F4 46 32 92 D1 95 69 B0 5F 19 F3 16 A4 FA 45 09 47 B4 9C 10 45 42 2B 68 E9 99 32 B1 96 4B 75 68 69 90 6B 03 ICC Public Key Exponent 9F 47 29 3F EA E7 03 A5 30 D2 50 57 F7 2A 9F 48 ICC Public Key Remainder BD 66 7F AC C7 40 30 22 AA 5D CC 9A B2 C9 9F 4A Static Data Authentication Tag List 82 9F 4D OB OA Transaction Log Entry 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 01 9F 62 Card Product Code [InteracFlash] Application Selection Flag [Canada] 80 80 DF 62

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

	_		
Tag	Element name	Data Card v4.x	
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'	
57	Track 2 Equivalent Data	00 12 02 00 00 00 1D 28 12 22 00 01	
		23 00 00 00 02 00 0F	
5A	Application Primary Account Number	00 12 02 00 00 00 1F	
	(PAN)		
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	
	- 11	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	
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	
	(ODOLI)	9F 4C 08 9F 34 03	

<sup>\*</sup> Tag value changes with card usage

SF	Tag	Element name	Data Card v4.x
90   Issuer Public Key Certificate			
OE 4A D4 33 E3 E1 97 ZB 37 E2 23 18 E3 B7 B2 B3 18 E3 B7 B2 B3 18 E3 B8 B3 E3 64 BB B1 95 D5 DC E8 03 25 54 93 C3 45 78 98 05 80 FF E4 23 95 07 23 BB 6F D8 59 16 17 88 C1 A8 27 D6 93 46 32 D8 00 78 1E 6A CF 63 76 01 DE 6E 25 69 4A A7 C6 ZA 68 80 B7 C8 93 A0 EB 0D 0B CD 50 64 76 4E 92 B8 C6 95 1B D1 FF DE 43 81 1D 6D 27 A8 CE 5C 6F 03 9D 38 EF 20 EC F7 1C E8 36 AB 86 82 32 62 6F 4F D6 33 BF 58 EE 6F 76 C4 73 12 75 96 8C 6F A4 65 26 AC F8 63 76 01 DE 6E 25 6F 03 9D 38 EF 20 EC F7 1C E8 C6 95 1B D1 FF DE 43 81 1D 6D 27 A8 CE 5C 6F 03 9D 38 EF 20 EC F7 1C E8 C6 P4 B4 B4 D5 P5 C6 P5 D7 68 CF A4 65 26 AC F8 P5 D7 68 CF A4 7D 1D 9C EC A8 F2 25 49 5D 61 E7 48 5A 92 F1 60 66 01 B0 59 1E 48 98 E7 20 55 42 C7 25 55 53 57 F7 67 58 71 DC C3 93 A5 78 53 B4 D8 E8 72 CB F1 60 66 01 B0 59 1E 48 98 E7 20 55 42 C7 25 D8 E7 C8 E7 C			1D 20 2E 58 DD 49 87 AC F7 62 08 02
S4			0E 4A D4 33 E3 E1 97 2B 37 E2 23 1B
9D 07 32 F6 3E C0 FA 8A 2C 93 95 7C 23 BB 6F DB 59 16 17 B8 C1 AB 27 D6 93 46 32 D8 0D 78 LE 6A C7 63 76 01 DE 6E 25 69 4A A7 C6 2A 68 80 B7 60 93 46 32 D8 0D 78 LE 6A C7 64 E9 8E 93 A0 E8 D0 00 BC 50 64 76 4E 9E 8E C6 95 LB D1 FF DE 43 81 LD 6D 27 A8 CE 5C 69 03 9D 38 EF 20 E7 T1 C E8 36 AB E3 85 04 0E 98 B1 A8 06 82 32 62 6F 4F D6 33 BF 5B EE 6F 76 C4 73 12 FF 96 8C 6F A4 65 26 AC FB D7 68 CF 04 63 BE ED 63 5A 23 4B 87 84 80 C0 9B AA D3 77 2A 75 E4 E7 B2 14 6A C6 A2 74 7D 1D 9C EC AB F2 25 49 50 61 E7 48 5A 92 F1 60 AB 87 5D CA 55 53 57 F7 67 58 71 DC C3 93 A5 7B 53 B4 DB E8 72 CB F1 60 AB 75 DC CA 55 53 57 F7 67 58 71 DC C3 93 A5 7B 53 B4 DB E8 72 CB F1 60 66 01 B0 59 LE 88 9E 20 55 42 C7 25 B7 F0 BYTE 1: B8 - Domestic cash trans. valid b6 - Domestic goods valid b6 - Domestic goods valid b6 - Domestic goods valid b6 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic cash trans. valid b7 - International services valid b3 - International services valid b3 - International services valid b3 - International ashback NOT allowed b7 - International cashback NOT allowed b7 - International			
23 BB 6F DB 59 16 17 8B C1 AB 27 D6			
93 46 32 D8 0D 78 LE 6A CF 63 76 01			
DE 6E 25 69 4A A7 C6 2A 68 80 B7 C8 93 A0 EB 0D 0B CD 50 64 76 4E 9E 8E C6 95 IB D1 FF DE 43 81 ID 6D 27 A8 CC 5C 6F 03 9D 38 EF 20 EC F7 1C E8 36 AB E3 85 04 0E 98 B1 A6 E3 25 04 0E 98 B1 A6 E3 25 04 0E 98 B1 A6 68 23 23 66 26 F4 FD 63 3B F5B EE 6F 76 C4 73 12 7F 96 8C 6F A4 65 26 AC FB D7 68 CF 04 63 BE ED 63 5A 23 4B 87 84 8A C0 9B A4 D3 77 2A 75 E4 E7 3E 14 6A C6 A2 74 7D 1D 9C EC AB F2 25 49 5D 61 E7 77 E7 67 58 71 DC C3 93 A5 7B 53 B4 DB E8 72 CB F1 60 66 01 B0 59 IE 48 BB BB 82 E7 CB F1 60 66 01 B0 59 IE 48 BB BB 82 E7 CB F1 60 66 01 B0 59 IE 48 BB BB 82 E7 E7 55 42 C7 25 B4 BB BF 12 CB F1 60 66 01 B0 59 IE 48 BB			
C6 95 18 D1 FF DE 43 81 1 D 6D 27 AB CC 5C 6F 03 9D 38 EF 20 EC F7 1C E8 36 AB E3 85 04 0E 98 B1 A8 06 82 32 62 62 6F 4F D6 33 BF 5B EE 6F 76 C4 73 12 7F 96 8C 6F A4 65 26 AC FB D7 68 CF 94 65 AC FB D7 68 AC			
CE 5C 6F 03 9D 38 EF 20 EC F7 1C E8			93 A0 EB OD OB CD 50 64 76 4E 9E 8E
36			
62 6F 4F D6 33 BF 5B EE 6F 76 C4 73 12 7F 96 8C 6F A4 65 26 AC FB D7 68 CF 04 63 BE ED 63 5A 23 4B 87 84 8A C0 9B A4 D3 77 2A 75 E4 E7 3E 14 6A C6 A2 74 70 LD 9C EC A2 34 B 87 84 8A C0 9B A4 D3 77 2A 75 E4 E7 3E 14 6A C6 A2 74 70 LD 9C EC A2 74 75 LD 9C A2 75 LD			
12 7F 96 8C 6F A4 65 26 AC FB D7 68			
CF 04 63 BE ED 72 2A 75 E4 E7 3E 14 65			
CO			
61 E7 48 5A 92 F1 60 AE B7 5D CA 55 53 57 F7 67 67 58 71 DC 23 93 A5 7B 53 B4 B4 B8 B8 72 CB F1 60 66 01 B0 59 1E 48 98 2F 20 55 42 C7 25			
S3			C6 A2 74 7D 1D 9C EC AB F2 25 49 5D
B4 DB E8 72 CB F1 60 66 01 B0 59 IE 48 89 2F 20 55 42 C7 25			61 E7 48 5A 92 F1 60 AE B7 5D CA 55
Application File Locator (AFL)			
94         Application File Locator (AFL)         08 01 04 00 10 01 05 03           9F 07         Application Usage Control         FF 00 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7			
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 b3 - International services valid b1 - non-ATM terminals valid b1 - non-ATM terminals valid b1 - non-ATM terminals valid b7 - International cashback NOT allowed b7 - International cashback NOT all	0.4	Application File Leasten (AFL)	
BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b1 - non-ATM terminals valid b7 - International cashback NOT allowed b7 - International cashb			
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 b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7	9F 07	Application Usage Control	
b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid 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 cash			- · · - · ·
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 NOT allowed   b7 - International c			
b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b3 - International services valid b4 - Domestic services valid b5 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - In			
B3 - International services valid   b2 - ATMs valid   b1 - non-ATM terminals valid   BYTE 2:   b8 - Domestic cashback NOT allowed   b7 - International cashback NOT allowed   b8 - International cashback NOT allowed   b7 - International cas			
b2 - ATMs valid   b1 - non-ATM terminals valid   BYTE 2:   b8 - Domestic cashback NOT allowed   b7 - International cashback NOT allowed   b7 - Internation			
b1 - non-ATM terminals valid   BYTE 2:   b8 - Domestic cashback NOT allowed   b7 - International cashback NOT allowed   b8 - International cashback NOT allowed   b8 - International cashback NOT allowed   b8 - International cashback NOT allowed   b7 - International cashback NOT allowed   b8 - International cashback NOT allowed   b7 - International cashback NOT allowed   b8 - International cashback NOT allowed   b7 - International cashback NOT allowed   b7 - International cashback NOT allowed   b8 - International cashback NOT allowed   b7 - International cashback NOT allowed   b7 - International cashback NOT allowed   b8 - International cashback NOT al			
BYTE 2:   b8 - Domestic cashback NOT allowed   b7 - International cashback NOT allowed   spring   super Action Code - Default   FC F8 FC F8 00   super Action Code - Denial   00 00 00 00 00   00   00   00   00			
b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b9 - Intern			
B7 - International cashback NOT allowed   9F 08   Application Version Number   00 02     9F 0D   Issuer Action Code - Default   FC F8 FC F8 00   9F 0E   Issuer Action Code - Denial   00 00 00 00 00   00   00   9F 0F   Issuer Action Code - Online   FC F8 FC F8 00   9F 10   Issuer Application Data [InteracFlash]   xx 01 xx			- · ·
9F 0D   Issuer Action Code - Default   FC F8 FC F8 00       9F 0E   Issuer Action Code - Denial   00 00 00 00   00     9F 0F   Issuer Action Code - Online   FC F8 FC F8 00       9F 10   Issuer Application Data [InteracFlash]   xx 01 xx			
9F 0D         Issuer Action Code - Default         FC         F8         FC         F8         90           9F 0E         Issuer Action Code - Denial         00         00         00         00           9F 0F         Issuer Action Code - Online         FC         F8         FC         F8         00           9F 10         Issuer Application Data [InteracFlash]         xx         01         xx	9F 08	Application Version Number	
9F 0E         Issuer Action Code - Denial         00 00 00 00 00 00           9F 0F         Issuer Action Code - Online         FC F8 FC F8 00           9F 10         Issuer Application Data [InteracFlash]         xx 01 xx			FC F8 FC F8 00
9F 0F         Issuer Action Code - Online         FC         F8         FX         XX	9F 0E		00 00 00 00 00
9F 10         Issuer Application Data [InteracFlash]         xx         01         xx         xx </td <td></td> <td></td> <td>FC F8 FC F8 00</td>			FC F8 FC F8 00
9F 13			xx 01 xx
Counter (ATC) Register   9F 17   Personal Identification Number (PIN)   Try Counter   9F 27   Cryptogram Information Data (CID)   80   9F 32   Issuer Public Key Exponent   01 00 01   9F 36   Application Transaction Counter (ATC)   xx   xx   xx   xx   xx   xx   xx			xx xx xx xx xx xx xx xx xx *
9F 17       Personal Identification Number (PIN) Try Counter       09         9F 27       Cryptogram Information Data (CID)       80         9F 32       Issuer Public Key Exponent       01 00 01         9F 36       Application Transaction Counter (ATC)       xx xx *         9F 38       Processing Options Data Object List (PDOL)       9F 59 03 9F 5A 01 9F 02 06 9F 1A 02 5F 2A 02 9F 37 04 9F 58 01         9F 42       Application Currency Code       01 24 - CAD	9F 13		xx xx *
Try Counter         80           9F 27         Cryptogram Information Data (CID)         80           9F 32         Issuer Public Key Exponent         01 00 01           9F 36         Application Transaction Counter (ATC)         xx xx *           9F 38         Processing Options Data Object List (PDOL)         9F 59 03 9F 5A 01 9F 02 06 9F 1A 02 5F 2A 02 9F 37 04 9F 58 01           9F 42         Application Currency Code         01 24 - CAD			
9F 27         Cryptogram Information Data (CID)         80           9F 32         Issuer Public Key Exponent         01 00 01           9F 36         Application Transaction Counter (ATC)         xx xx *           9F 38         Processing Options Data Object List (PDOL)         9F 59 03 9F 5A 01 9F 02 06 9F 1A 02 5F 2A 02 9F 37 04 9F 58 01           9F 42         Application Currency Code         01 24 - CAD	9F 17	, ,	09
9F 32       Issuer Public Key Exponent       01 00 01         9F 36       Application Transaction Counter (ATC)       xx xx *         9F 38       Processing Options Data Object List (PDOL)       9F 59 03 9F 5A 01 9F 02 06 9F 1A 02 5F 2A 02 9F 37 04 9F 58 01         9F 42       Application Currency Code       01 24 - CAD			
9F 36         Application Transaction Counter (ATC)         xx xx *           9F 38         Processing Options Data Object List (PDOL)         9F 59 03 9F 5A 01 9F 02 06 9F 1A 02 5F 2A 02 9F 37 04 9F 58 01           9F 42         Application Currency Code         01 24 - CAD		Cryptogram Information Data (CID)	
9F 38 Processing Options Data Object List (PDOL)  9F 42 Application Currency Code  9F 59 03 9F 5A 01 9F 02 06 9F 1A 02 5F 2A 02 9F 37 04 9F 58 01	9F 32		
(PDOL)       5F 2A 02 9F 37 04 9F 58 01         9F 42       Application Currency Code       01 24 - CAD	9F 36	Application Transaction Counter (ATC)	xx xx *
(PDOL)       5F 2A 02 9F 37 04 9F 58 01         9F 42       Application Currency Code       01 24 - CAD	9F 38	Processing Options Data Object List	
-			5F 2A 02 9F 37 04 9F 58 01
	9F 42	Application Currency Code	01 24 - CAD
			02

Data Element name Card v4.x Tag F3 D7 2E CF F5 A2 44 1D 45 D9 3A D3 9F 46 ICC Public Key Certificate 54 D1 03 A2 24 5A 17 98 D7 70 5B 9C DF A9 C2 69 03 8B C7 6F 49 B0 21 D4 F0 78 B6 77 34 49 68 32 6C 3C 04 8C 18 C7 FC 94 9F 83 9F 71 D8 BA 53 DF 86 C7 42 75 F4 06 1F 7B 0D A2 DE 9A 3B 2A 34 5B BF F0 DC 6C FE 7E D9 90 CE BB 70 23 D7 F1 60 6A 25 B1 D6 86 90 22 60 8C 5E 11 1F 1B 77 B0 F0 37 45 1B AE 38 22 FD 53 FC 43 81 86 6D 78 4E 09 33 03 46 61 C3 A2 AD 3A 09 26 6C 03 71 E2 D5 D5 2D AC 73 92 21 9F 47 ICC Public Key Exponent 03 29 3F EA E7 03 A5 30 D2 50 57 F7 2A 9F 48 ICC Public Key Remainder BD 66 7F AC C7 40 30 22 AA 5D CC 9A B2 C9 9F 4A 82 Static Data Authentication Tag List 9F 4D Transaction Log Entry OB OA 9F 4F 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F Transaction Log Format 1A 02 95 05 9C 01 8A 02 9F 52 Merchant Type Indicator Limits 01 00 00 00 02 50 01 99 99 99 99 99 99 9F 54 Merchant Type Indicator Limits 02 00 00 00 02 50 01 99 99 99 99 99 99 9F 55 Merchant Type Indicator Limits 03 00 00 00 02 50 01 99 99 99 99 99 99 9F 56 Merchant Type Indicator Limits 04 00 00 00 02 50 01 99 99 99 99 99 99 9F57 Merchant Type Indicator Limits 05 00 00 00 02 50 01 99 99 99 99 99 99 Card Product Code [InteracFlash] 00 01 9F 62 00 18 08 00 9F 63 **Card Transaction Information** [InteracFlash] 80 80 Application Selection Flag [Canada] DF 62

#### 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

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

#### 4.16.2 Contact: Application Tag data, AID A00000004101001

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'

<sup>\*</sup> Tag value changes with card usage

Tag Element name Data Card v6.x 54 13 33 00 89 02 00 60 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 02 00 60 (PAN) 55 53 41 20 44 45 42 49 54 2F 54 65 5F 20 Cardholder Name 73 74 20 43 61 72 64 20 31 36 20 20 20 20 - 'USA DEBIT/Test Card 16' 25 12 31 5F 24 **Application Expiration Date** 5F 25 Application Effective Date xx xx <del>xx \*</del> Issuer Country Code 08 40 - USA 5F 28 65 6E - 'en' (English) 5F 2D Language Preference 5F 30 02 01 Service Code 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 via **EXTERNAL AUTH command** b1 - Combined DDA / GEN AC NOT supported BYTE 2: **b8** - EMV Contactless NOT supported A0 00 00 00 04 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 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) 8E Cardholder Verification Method (CVM) 00 00 00 00 00 00 00 00 41 03 42 03 5E 03 1F 00 00 00 List 08 01 01 00 10 01 02 00 94 Application File Locator (AFL) 08 01 01 00 10 01 02 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** 9F 0D Issuer Action Code - Default B0 50 BC 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F 70 BC 98 00 Issuer Action Code - Online в0 xx 14 xx 9F 10 Issuer Application Data [M/Chip xx xx xx xx xx \*\* Advance] 9F 11 Issuer Code Table Index 01 9F 12 **Application Preferred Name** 4D 61 73 74 65 72 63 61 72 64 43 72 65 64 69 74 - 'MastercardCredit' 9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 17 Personal Identification Number (PIN) 09 Try Counter

Tag	Element name	Data Card v6.x
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	2B FB AF 1A 64 BF F4 32
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 Entry  Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
91 41	Transaction Log Format	36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 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	Conditions Astion Code (Contest)	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]	1F 50 00
C4	Card Issuer Action Code (Contact) -	1F 50 00
05	Default [M/Chip Advance]	27 77 00
C5	Card Issuer Action Code (Contact) -	3F FB 00
	Online [M/Chip Advance]	00
C6	PIN Try Limit [M/Chip Advance]	09
C7	CDOL1 Related Data Length	42
	[Mastercard]	
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code	08 40 - USD
	[Mastercard]	
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
СВ	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00
CD	Card Issuer Action Code (Contactless) -	00 00 00
	Default [M/Chip Advance]	
CE	Card Issuer Action Code (Contactless) -	00 00 00
	Online [M/Chip Advance]	
CF	Card Issuer Action Code (Contactless) -	00 00 00
	Decline [M/Chip Advance]	
D1	Accumulator 1 Currency Conversion	08 40 00 01 01 08 40 00 01 01 08 40
	Table [Mastercard]	00 01 01 08 40 00 01 01 08 40 00 01
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF
DS	Additional Check Table [Mastercard]	FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	86 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip	00 10
	Advance]	
D7	Application Control [M/Chip Advance]	00 00 00 00 00 00
D9	Application File Locator (Contactless)	
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip	00
2. 02	Advance]	
DF 11	Accumulator 1 Control (Contact)	C1
	[M/Chip Advance]	
DF 12	Accumulator 1 Control (Contactless)	00
	[M/Chip Advance]	
DF 14	Accumulator 2 Control (Contact)	00
	[M/Chip Advance]	
DF 15	Accumulator 2 Control (Contactless)	00
	[M/Chip Advance]	
DF 16	Accumulator 2 Currency Code	08 40 - USD
	[Mastercard]	
		i e e e e e e e e e e e e e e e e e e e

Tag Element name Data Card v6.x 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 00 00 00 00 00 00 Accumulator 2 Lower Limit [Mastercard] **DF 18** 00 00 00 00 00 00 Accumulator 2 Upper Limit [Mastercard] DF 19 C1 DF 1A Counter 1 Control (Contact) [M/Chip Advance] Counter 1 Control (Contactless) [M/Chip 00 DF 1B Advance] 00 DF 1D Counter 2 Control (Contact) [M/Chip Advance1 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 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 MTA CVM (Contactless) [M/Chip DF 23 Advancel **DF 24** MTA Currency Code [M/Chip Advance] 00 00 00 00 00 00 DF 25 MTA NoCVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 **DF 26** MTA NoCVM (Contactless) [M/Chip Advance] 99 99 **DF 27** Number Of Davs Offline Limit IM/Chip 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 DF<sub>2</sub>C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] Counter 1 CVR Dependency Data 00 00 00 DF 2D (Contactless) [M/Chip Advance] 00 00 00 DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] 01 **DF 30** Interface Enabling Switch [M/Chip Advance] 00 Security Limits Status (Contactless) **DF 35** [M/Chip Advance] 00 DF 37 Security Limits Status Common [M/Chip Advance1 DF 3C **CVR Issuer Discretionary Data** 00 (Contact) [M/Chip Advance] DF 3D **CVR Issuer Discretionary Data** 00 (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 20 DS Management Control [M/Chip Advance]

\* Tag value changes with card usage

# 4.16.3 Contact: CVM List - Mastercard, AID A00000004101002

Cardholder Verification Method List ('4201 1E03 4203 1F03')				
CVM	M 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 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 91 30
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 31 36 20 20 20 20 - 'USA DEBIT/Test Card 16'
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'
82	Application Interchange Profile	BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10 02
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 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 42 01 1E 03 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

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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	VVM 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'

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<sup>\*</sup> 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 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 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 10		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]		

<sup>\*</sup> 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 1A	EM	69	01000101	45	E F	113	01110001	71	q
26 27	00011010	1B	SUB	70 71	01000110	46 47	G	114 115	01110010 01110011	72 73	r
28	00011011	1C	FS	72	01000111	48	Н	116	01110111	74	s t
29	00011101	1D	GS	73	01001000	49	- i	117	01110100	75	u
30	00011101	1E	RS	74	01001001	4A	J	118	01110111	76	V
31	00011111	1F	US	75	01001011	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				