USA Debit
EMV™ Test Plan

Version 1.30

June 2018

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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.C09-T01 • Card version numbers (profile table, Tag data) updated to match physical card version - all are currently v4.0. • Tags 82, 9F07, 9F69: interpretation of bit values added

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Chapter 1 - Overview

1.1 B2 USA Debit EMV Test Plan - Purpose

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

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

1.2 Target Audience

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

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

1.3 System Requirements

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

Chapter 2 - Implementing U.S. Debit

2.1 U.S. Common Debit Scenarios

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

U.S. Common Debit AIDs

Brand	Scheme	AID
Discover	U.S. Common Debit	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 not 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 2.5 Final Selection Processing below). The card has more than 2 AIDs where these data elements are present and 2 of the AIDs have the same value for the Issuer Identification Number (IIN). In this scenario there will also be one or more other AID(s) present on the card that have either no IIN or a different IIN from the pair of AIDs with the same IIN **(Scenario Two below)**:

- The EMV POS Solution should assume that the AIDs with the same IIN access the same underlying funding account and therefore can remove one of those AIDs from the Candidate List.
- For contact transactions, the EMV POS Solution should present the remaining Candidate List choices to the cardholder in accordance with Final Selection processing (section 1.4.3 below).
- For contactless transactions, the EMV POS Solution should automatically select the AID in the Candidate List that has the highest Application Priority Indicator (Tag 87) value.

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

U.S. Common Debit Scenarios

Scenario	AID	Country Code Tag 5F55	IIN Tag 42	Candidate List Choice for the Merchant
One	**Card accesses single debit funding account: UL USA Debit Test Cards 01, 05,12**			
Global Debit AID	TC 01 - A0000000031010 TC 05 - A0000000041010 TC 12 - A0000000153010	US	TC 01 - 476173 TC 05 - 541333 TC 12 - 651000	Merchant may decide which AID to select based on their preferred routing choice: ▪ Global AID – may only be routed to Visa, Mastercard or Discover (any 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: UL USA Debit Test Cards 03, 09**			
Global Credit AID	TC 03 - A000000003101001 TC 09 - A0000000041010	n/a	n/a	Global Credit AID will remain in the Candidate List for cardholder selection.

U.S. Common Debit Scenarios

Scenario	AID	Country Code Tag 5F55	IIN Tag 42	Candidate List Choice for the Merchant
Global Debit AID	TC 03 - A000000003101002 TC 09 - A0000000043060	US	TC 03 - 476173 TC 09 - 679999	Merchant should decide on either the Global AID or the U.S. Common Debit AID based on their preferred routing choice: ▪ Global AID – may only be routed to Visa, Mastercard or Discover (any supported CVM may be used) ▪ U.S. Common Debit AID – may be routed to any of the global networks or any of the supported debit networks (any supported CVM may be used)
U.S. Common Debit AID	TC 03 - A0000000980840 TC 09 - A0000000042203	US	TC 03 - 476173 TC 09 - 679999	
Three	**Card accesses two debit funding accounts – Accounts have different IINs: UL USA Debit Test Card 11**			
Global Debit AID 1	TC 11 - A0000000043060	US	5413333	Merchant should choose either the 2 Global AIDs or the 2 U.S. Common Debit AIDs based on their preferred routing choice: ▪ Global AIDs – may only be routed to Visa, Mastercard or Discover (any supported CVM may be used) ▪ U.S. Common Debit AIDs – may be routed to any of the global networks or any of the supported debit networks (any supported CVM may be used)
U.S. Common Debit AID 1	TC 11 - A000000004220301	US	541333	
Global Debit AID 2	TC 11 - A0000000041010	US	679999	
U.S. Common Debit AID 2	TC 11 - A0000000004220302	US	679999	

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

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

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

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

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

2.3 PIN Preferring Merchants:

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

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

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

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

   Depending on the number of AIDs remaining in the Candidate List, one the following should be performed:
   - Candidate List only contains one AID – Continue to step 5.

- Candidate List contains more than one AID – Continue to the Final Selection Process (section 1.4.3 below).

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

   If the Candidate List only contains a single Global Debit AID, the EMV POS Solution must determine if the transaction is under or over the NO CVM limit:
   - Transaction is under the NO CVM limit – Set Terminal Capabilities (Tag 9F33) to "NO CVM Only Configuration" and continue with Final Selection Process (section 1.4.3 below).
   - If the Transaction is over the NO CVM limit – Continue to step 6.

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

   If the Candidate List contains a single Global Debit AID and the transaction is over the NO CVM limit for the Global Debit AID, the following should be performed:
   - Transaction is over the NO CVM limit – Set Terminal Capabilities (Tag 9F33) to "All CVM Configuration" and continue with Final Selection Process (section 1.4.3 below). As the transaction is over the NO CVM limit and the only CVM supported by the terminal is Signature - the application should print a signature line on the receipt.

2.5 Final Selection Processing

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

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

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

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

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

application names displayed are determined as follows:

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

Display the Application Label (Tag 50) if the Application Preferred Name is not present or cannot be displayed.
If the Application Preferred Name and Application Label are not present or cannot be displayed, display a default' application name assigned to the AID by the EMV POS Solution.

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

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

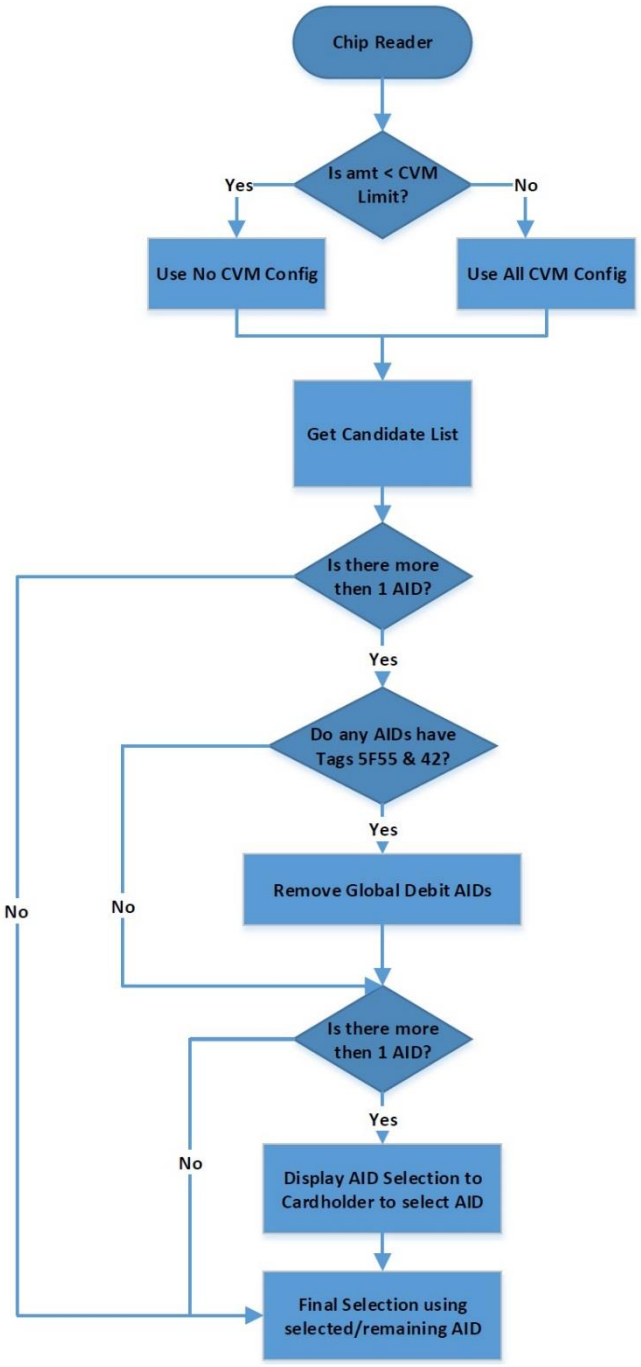
Set the Processing Code:

- 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

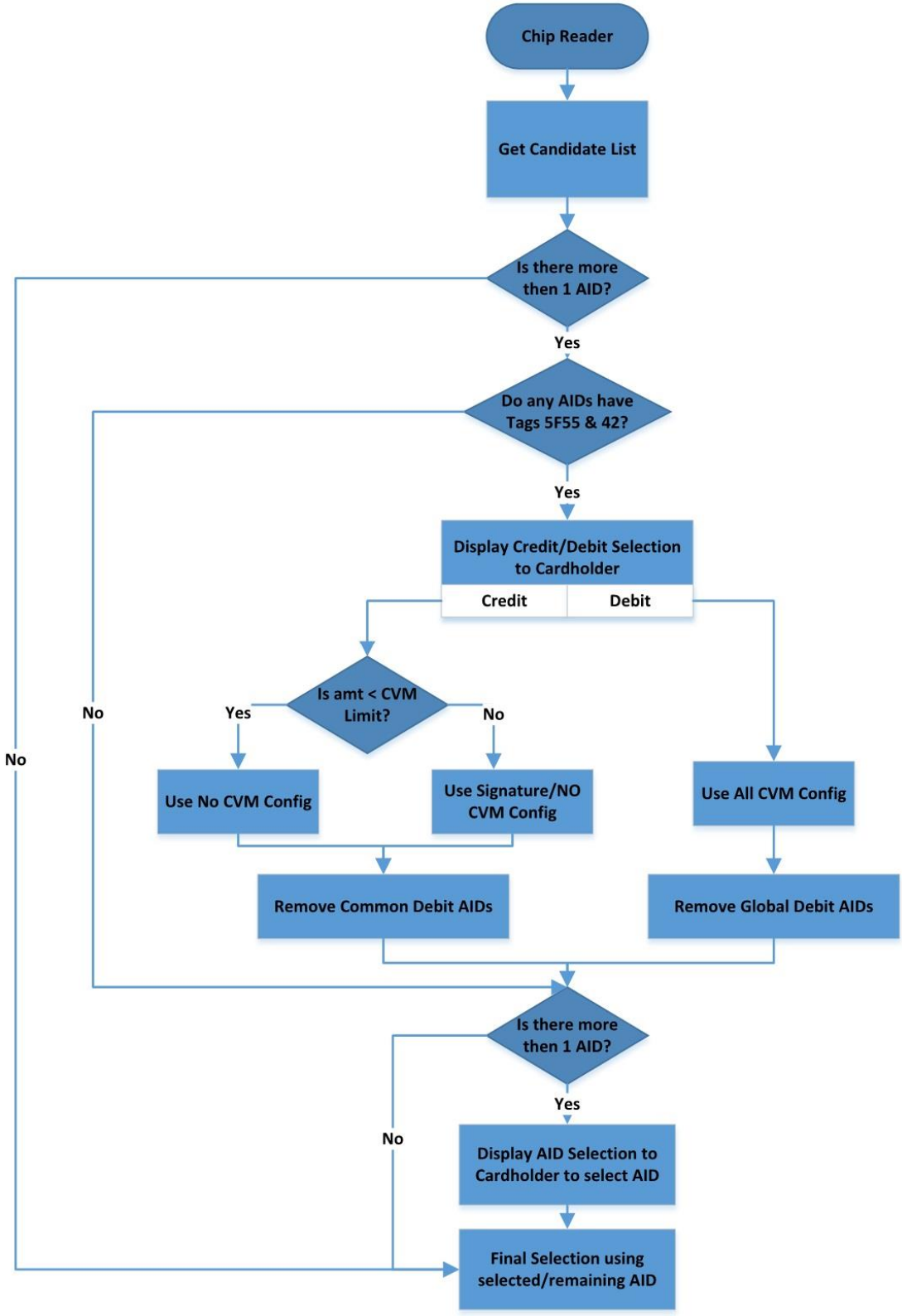
The kernel can now select the AID on the chip and Final Selection ends.

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 - B2 USA Debit EMV Test Plan

3.1 Test Case Outline

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

Types of Merchant Configuration include:

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

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

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

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

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

3.2 Selecting Applicable Test Cases

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

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

3.3 USA Debit EMV Test Cases

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

Important Notes:

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

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

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

- ***DD*** is:

PP - PIN Preferring
CD - Credit/Debit

- ***AAAA*** is:
  MCCL - Merchant Controlled Candidate List)
  SEAS - Standard EMV Application Selection
- C***xx*** is:
  The Card Number (01-16)
- T***yy*** is:
  The Test Number (resets to "01" for each card)

e.g.

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

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

3.3.1 Test Case ID and Title

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

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

3.3.2 Type

Type:	Contact

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

3.3.3 Purpose

Purpose:

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

1. Does not prompt for Credit or Debit
2. Does not prompt for Application Selection
3. Automatically selects the 'US Debit' AID

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

3.3.4 Pre-Requisites

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Merchant Controlled Candidate List
3. Terminal supports the following AIDs: A0000000031010, A0000000980840

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

3.3.5 Steps

Steps:

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

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

3.3.6 Pass Criteria

Pass Criteria:

1. “Chip” – indicates the card was inserted
2. “A0000000980840” – AID selected was ‘US Debit’

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

3.3.7 Comments

Comments:

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

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

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

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

Card	Application 1	Application 2	Application 3	Application 4
01	A0000000031010	A0000000980840		
	Debit	Debit		
	Visa Debit	US Debit		
	4761739001010135	4761739001010135		
02	A0000000980840			
	Debit			
	US Debit			
	4761739001010135			
03	A000000003101001	A000000003101002	A0000000980840	
	Credit	Debit	Debit	
	Visa Credit	Visa Debit	US Debit	
	4761739001010176	4761739001010135	4761739001010135	
04	A0000000033010			
	Debit			
	Interlink			
	4761739001010671			
05	A0000000041010	A0000000042203		
	Debit	Debit		
	Mastercard Debit	US Maestro		
	5413330089099130	5413330089099130		
06	A0000000043060 D0561111	A0000000043060 D0562222		
	Debit	Debit		
	Maestro1	Maestro2		
	67999989000002010	67999989000002028		
07	A0000000041010	A0000000043060		
	Credit	Debit		
	Mastercard	Maestro		
	5413330089020060	6799998900000200051		
08	A0000000042203 D0561111	A0000000042203 D0562222		
	Debit	Debit		
	US Checking	US Savings		
	5413330089099007	5413330089099015		
09	A0000000041010	A0000000043060	A0000000042203	
	Credit	Debit	Debit	
	Mastercard	Maestro	US Maestro	
	5413330089020060	6799998900000200051	6799998900000200051	
10	A0000000042203			
	Debit			
	US Maestro			
	5413330089099130			
11	A0000000041010	A000000004220301	A0000000043060	A000000004220302
	Debit	Debit	Debit	Debit
	Mastercard Debit	US Checking	Maestro	US Savings
	5413330089020060	5413330089020060	6799998900000200051	6799998900000200051

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

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

3.3.9 PIN Preferring, Merchant Controlled Candidate List – Test Cases

3.3.9.1 PP.MCCL.C01-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AIDs: A0000000031010, A0000000980840

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'US Debit' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000980840" – AID selected was 'US Debit'
   c. "0135" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.9.2 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:

1. Application is configured as PIN Preferring
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AIDs: A0000000031010, 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. When prompted for PIN, press Enter/Cancel to bypass PIN entry

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'US Debit' application is automatically selected
4. When a PIN is not entered, transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000980840" – 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:

1. Application is configured as PIN Preferring
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AIDs: A0000000031010, 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 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. "A0000000980840" – AID selected was 'US Debit'
   c. "0135" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.9.4 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 not prompt for Application Selection
3. Automatically selects the 'US Debit' application
4. Does not 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: A0000000031010, 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 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. "A0000000980840" – AID selected was 'US Debit'
   c. "0135" – last 4 digits of the PAN
   d. "No signature required" – No CVM was used

Comments:

3.3.9.5 PP.MCCL.C02-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AID: A0000000980840

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'US Debit' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000980840" – AID selected was 'US Debit'
   c. "0135" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.9.6 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 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: A0000000980840
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'US Debit' application is automatically selected
4. When a PIN is not entered, transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000980840" – 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:

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AIDs: A0000000031010, 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. "A000000003101001" – 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:

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AIDs: A0000000031010, 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
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:

3.3.9.9 PP.MCCL.C03-T03

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AIDs: A0000000031010, 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 not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'Visa Credit' and 'US Debit' only
3. User is able to select 'US Debit'
4. When PIN is not entered the transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000980840" – 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 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 PIN Preferring
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AID: A0000000033010

Steps:

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

Pass Criteria:

4. User is not prompted to select 'Credit' or 'Debit'
5. User is not 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. "A0000000033010" – 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 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 AIDs: A0000000041010, 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 not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'US Maestro' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000042203" – 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 not 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: A0000000041010, A0000000042203
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is 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. "A0000000042203" – 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 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 AIDs: A0000000041010, 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 not prompted to select an application
3. The 'US Maestro' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Contactless" – indicates card was tapped
   b. "A0000000042203" – 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 not prompt for Application Selection
3. Automatically selects the 'US Maestro' application
4. Does not 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: A0000000041010, 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. 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. "A0000000042203" – 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
5. Receipt shows:
   a. “Chip” – indicates card was inserted
   b. “A0000000043060D0561111” – 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
5. Receipt shows:
   a. “Chip” – indicates card was inserted
   b. “A0000000043060D0562222” – 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: A0000000041010, A0000000043060

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'Mastercard' and 'Maestro'
3. User is able to select 'Mastercard'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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: A0000000041010, A0000000043060
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'Mastercard' and 'Maestro'
3. User is able to select 'Mastercard'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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: A0000000041010, A0000000043060

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'Mastercard' and 'Maestro'
3. User is able to select 'Maestro'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000043060" – 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. "A0000000042203D0561111" – AID selected was 'US Checking'
   c. "9007" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.9.21 PP.MCCL.C08-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AID: A0000000042203
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'US Checking' and 'US Savings' only
3. User is able to select 'US Checking'
4. When a PIN is not entered, transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000042203D0561111" – AID selected was 'US Checking'
   c. "9007" – last 4 digits of the PAN
   d. "No signature required" or "Signature panel" – No CVM or Signature CVM was used

Comments:

3.3.9.22 PP.MCCL.C08-T03

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AID: A0000000042203

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'US Checking' and 'US Savings' only
3. User is able to select 'US Savings'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000042203D0562222" – 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
3. User is able to select 'US Savings'
4. When a PIN is not entered, transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000042203D0562222" – 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:

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AIDs: 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 'Mastercard' application when prompted
4. Enter PIN ("4315") when prompted

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'Mastercard' and 'US Maestro' only
3. User is able to select 'Mastercard'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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:

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A0000000042203
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'Mastercard' and 'US Maestro' only
3. User is able to select 'Mastercard'
4. When PIN is not entered the transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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:

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A0000000042203

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select '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. "A0000000042203" – 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:

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A0000000042203
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'Mastercard' and 'US Maestro' only
3. User is able to select 'US Maestro'
4. When PIN is not entered the transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000042203" – 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:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'US Maestro' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000042203" – 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 not prompt for Application Selection
3. Automatically selects the 'US Maestro' application
4. Allows the user to bypass PIN entry

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AID: 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. "A0000000042203" – 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 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. "A000000004220301" – 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:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'US Checking' and 'US Savings' only
3. User is able to select 'US Checking'
4. When a PIN is not entered, transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A000000004220301" – 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
3. Select 'US Savings' application when prompted
4. Enter PIN ("4315") when prompted

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'US Checking' and 'US Savings' only
3. User is able to select 'US Savings'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A000000004220302" – 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:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'US Checking' and 'US Savings' only
3. User is able to select 'US Savings'
4. When a PIN is not entered, transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A000000004220302" – 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 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: A0000001524010, A0000001523010

Steps:

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

Pass Criteria:

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

Comments:

3.3.9.35 PP.MCCL.C12-T02

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

Type: Contact

Purpose:

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

1. Does not prompt for Credit or Debit
2. Does 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 AIDs: A0000001524010, A0000001523010
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

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

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 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: A0000001524010, A0000001523010
4. Contactless CVM Floor limit is $0

Steps:

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

Pass Criteria:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.9.41 PP.MCCL.C15-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.9.42 PP.MCCL.C16-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.10 PIN Preferring, Standard EMV Application Selection – Test Cases

3.3.10.1 PP.SEAS.C01-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AIDs: A0000000031010, A0000000980840

Steps:

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

Pass Criteria:

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 'Visa Debit'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000031010" – 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:

1. Application is configured as PIN Preferring
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AIDs: A0000000031010, A0000000980840

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'Visa Debit' and 'US Debit'
3. User is able to select 'US Debit'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "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 A0000000031010, 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'
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. "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 A0000000031010, 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 not prompted to select an application
3. The 'Visa Debit' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Contactless" – indicates card was tapped
   b. "A0000000031010" – AID selected was 'Visa Debit'
   c. "0135" – last 4 digits of the PAN
   d. "Signature panel" – Signature CVM was used

Comments:

3.3.10.5 PP.SEAS.C01-T05

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

Type: Contactless

Purpose:

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

1. Does not prompt for Credit or Debit
2. Does not prompt for Application Selection
3. Automatically selects the 'Visa Debit' application
4. Does not 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 A0000000031010, 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 not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'Visa Debit' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Contactless" – indicates card was tapped
   b. "A0000000031010" – 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 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: 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:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'US Debit' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000980840" – AID selected was 'US Debit'
   c. "0135" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.10.7 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 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: A0000000980840
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'US Debit' application is automatically selected
4. When a PIN is not entered, transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000980840" – 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: A0000000031010, 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 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. "A000000003101001" – 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: A0000000031010, A0000000980840

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. "A000000003101002" – 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: A0000000031010, 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 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:

3.3.10.11 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: A0000000031010, 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 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. "A0000000980840" – 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 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 PIN Preferring
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AID: A0000000033010

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'Interlink' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000033010" – 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: A0000000041010, 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'
3. User is able to select 'Mastercard Debit'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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: A0000000041010, A0000000042203

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'Mastercard Debit' and 'US Maestro'
3. User is able to select 'US Maestro'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000042203" – 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: A0000000041010, 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. "A0000000042203" – 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: A0000000041010, A0000000042203
4. Contactless CVM Floor limit is $0

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'Mastercard Debit' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Contactless" – indicates card was tapped
   b. "A0000000041010" – 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 not prompt for Application Selection
3. Automatically selects the 'Mastercard Debit' application
4. Does not 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: A0000000041010, A0000000042203
4. Contactless CVM Floor limit is above $20

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'Mastercard Debit' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Contactless" – indicates card was tapped
   b. "A0000000041010" – 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'
3. User is able to select 'Maestro1'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000043060D0561111" – AID selected was 'Maestro1'
   c. "2010" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.10.19 PP.SEAS.C06-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AID: A0000000043060

Steps:

1. Start a Purchase transaction for $20.00
2. When prompted for card entry, insert Test Card 06
3. Select ‘Maestro2’ application when prompted
4. Enter PIN (“4315”) when prompted

Pass Criteria:

1. User is not prompted to select ‘Credit’ or ‘Debit’
2. User is prompted to select ‘Maestro1’ and ‘Maestro2’
3. User is able to select ‘Maestro2’
4. The transaction is approved
5. Receipt shows:
   a. “Chip” – indicates card was inserted
   b. “A0000000043060D0562222” – 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: A0000000041010, A0000000043060

Steps:

1. Start a Purchase transaction for $20.00
2. When prompted for card entry, insert Test Card 07
3. Select ‘Mastercard’ application when prompted
4. Enter PIN (“4315”) when prompted

Pass Criteria:

1. User is not prompted to select ‘Credit’ or ‘Debit’
2. User is prompted to select ‘Mastercard’ and ‘Maestro’
3. User is able to select ‘Mastercard’
4. The transaction is approved
5. Receipt shows:
   a. “Chip” – indicates card was inserted
   b. “A0000000041010” – 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: A0000000041010, A0000000043060
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is not prompted to select ‘Credit’ or ‘Debit’
2. User is prompted to select ‘Mastercard’ and ‘Maestro’
3. User is able to select ‘Mastercard’
4. The transaction is approved
5. Receipt shows:
   a. “Chip” – indicates card was inserted
   b. “A0000000041010” – 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: A0000000041010, A0000000043060

Steps:

1. Start a Purchase transaction for $20.00
2. When prompted for card entry, insert Test Card 07
3. Select ‘Maestro’ application when prompted
4. Enter PIN (“4315”) when prompted

Pass Criteria:

1. User is not prompted to select ‘Credit’ or ‘Debit’
2. User is prompted to select ‘Mastercard’ and ‘Maestro’
3. User is able to select ‘Maestro’
4. The transaction is approved
5. Receipt shows:
   a. “Chip” – indicates card was inserted
   b. “A0000000043060” – 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. "A0000000042203D0561111" – AID selected was 'US Checking'
   c. "9007" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.10.24 PP.SEAS.C08-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AID: A0000000042203
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'US Checking' and 'US Savings'
3. User is able to select 'US Checking'
4. When a PIN is not entered, transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000042203D0561111" – 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. "A0000000042203D0562222" – AID selected was 'US Savings'
   c. "9015" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.10.26 PP.SEAS.C08-T04

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AID: A0000000042203
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'US Checking' and 'US Savings'
3. User is able to select 'US Savings'
4. When a PIN is not entered, transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000042203D0562222" – 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
3. Select 'Mastercard' application when prompted
4. Enter PIN ("4315") when prompted

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
3. User is able to select 'Mastercard'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
3. User is able to select 'Mastercard'
4. When PIN is not entered the transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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'
3. User is able to select 'Maestro'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000043060" – AID selected was 'Maestro'
   c. "0051" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.10.30 PP.SEAS.C09-T04

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as PIN Preferring
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A0000000042203

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
3. User is able to select 'US Maestro'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000042203" – 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:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
3. User is able to select 'US Maestro'
4. When PIN is not entered the transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000042203" – 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:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'US Maestro' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000042203" – 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:

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 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. "A0000000042203" – 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 A0000000042203

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
3. User is able to select 'Mastercard Debit'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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
6. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A0000000042203
7. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
3. User is able to select 'Mastercard Debit'
4. When a PIN is not entered, transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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 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 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. "A000000004220301" – 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 A0000000042203
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
3. User is able to select 'US Checking'
4. When a PIN is not entered, transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A000000004220301" – 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 A0000000042203

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
3. User is able to select 'Maestro'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000043060" – 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 A0000000042203

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
3. User is able to select 'US Savings'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A000000004220302" – 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 A0000000042203
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
3. User is able to select 'US Savings'
4. When a PIN is not entered, transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A000000004220302" – 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 not prompted to select 'Credit' or 'Debit'
2. User is prompted to select 'US Debit' and 'Discover Debit'
3. User is able to select 'Discover Debit'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000001523010" – AID selected was 'Discover Debit'
   c. "0005" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

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'
3. User is able to select 'Discover Debit'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000001523010" – AID selected was 'Discover Debit'
   c. "0005" – last 4 digits of the PAN
   d. "No signature required" or "Signature panel" – No CVM or Signature CVM was used

Comments:

3.3.10.45 PP.SEAS.C12-T05

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

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 not prompt for Application Selection
3. Automatically selects the 'US Debit' application
4. Does not 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:

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

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.10.50 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 not prompt for Application Selection
3. Automatically selects the 'Interac' application
4. Prompts the user to enter a PIN

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.10.51 PP.SEAS.C16-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

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

3.3.11.1 CD.MCCL.C01-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AIDs: A0000000031010, A0000000980840

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is 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. "A0000000980840" – AID selected was 'US Debit'
   c. "0135" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.11.2 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: A0000000031010, 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 not prompted to select an application
3. The 'Visa Debit' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000031010" – 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 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: A0000000031010, 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 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. "A0000000980840" – AID selected was 'US Debit'
   c. "0135" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.11.4 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 not 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: A0000000031010, 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 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. "A0000000980840" – AID selected was 'US Debit'
   c. "0135" – last 4 digits of the PAN
   d. "No signature required" – No CVM was used

Comments:

3.3.11.5 CD.MCCL.C02-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
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. "A0000000980840" – 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: 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:

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. "A0000000980840" – 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: A0000000031010, A0000000980840

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select all of the following applications: 'Visa Credit' and 'Visa Debit'
3. User is able to select 'Visa Credit'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A000000003101001" – 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: A0000000031010, A0000000980840

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select all of the following applications: 'Visa Credit' and 'Visa Debit'
3. User is able to select 'Visa Debit'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A000000003101002" – 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 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: A0000000031010, A0000000980840

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is 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. "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: A0000000033010

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. "A0000000033010" – 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: A0000000041010, 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 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. "A0000000042203" – 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 not prompt for Application Selection
3. Automatically selects the 'Mastercard Debit' application
4. Uses Signature/No CVM as the CVM for the transaction

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AIDs: A0000000041010, 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 not prompted to select an application
3. The 'Mastercard Debit' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000041010" – AID selected was 'Mastercard Debit'
   c. "9130" – last 4 digits of the PAN
   d. "Signature panel" or "No signature required" – Signature or No CVM was used

Comments:

3.3.11.13 CD.MCCL.C05-T03

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AIDs: A0000000041010, 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 not prompted to select an application
3. The 'US Maestro' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Contactless" – indicates card was tapped
   b. "A0000000042203" – 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 not prompt for Application Selection
3. Automatically selects the 'US Maestro' application
4. Does not 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: A0000000041010, 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. "A0000000042203" – 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: 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 '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. "A0000000043060D0561111" – AID selected was 'Maestro1'
   c. "2010" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.11.16 CD.MCCL.C06-T02

CD.MCCL.C06-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 06 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Merchant Controlled by filtering the Candidate List
1. Terminal supports the following AID: A0000000043060

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'Maestro1' and 'Maestro2'
3. User is able to select 'Maestro2'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000043060D0562222" – 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: A0000000041010, A0000000043060

Steps:

1. Start a Purchase transaction for $20.00
2. When prompted for card entry, insert Test Card 07
3. When prompted, select 'Credit'
4. Select 'Mastercard' application when prompted

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'Mastercard' and 'Maestro'
3. User is able to select 'Mastercard'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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
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

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'Mastercard' and 'Maestro'
3. User is able to select 'Mastercard'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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: A0000000041010, 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'
3. User is able to select 'Maestro'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000043060" – 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: 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' 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. "A0000000042203D0561111" – AID selected was 'US Checking'
   c. "9007" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.11.22 CD.MCCL.C08-T03

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'US Checking' and 'US Savings' only
3. User is able to select 'US Savings'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000042203D0562222" – 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'
3. User is able to select 'Mastercard'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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
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 '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. "A0000000042203" – 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. "A0000000042203" – 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:

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 'Credit'

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is not prompted to select an application
3. The 'US Maestro' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000042203" – 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
3. When prompted, select 'Credit'
4. Select 'Mastercard Debit' application when prompted

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'Mastercard Debit' and 'Maestro' only
3. User is able to select 'Mastercard Debit'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000041010" – 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:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'US Checking' and 'US Savings' only
3. User is able to select 'US Checking'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A000000004220301" – 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:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'Mastercard Debit' and 'Maestro' only
3. User is able to select 'Maestro'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000043060" – 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:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'US Checking' and 'US Savings' only
3. User is able to select 'US Savings'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A000000004220302" – 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 not prompt for Application Selection
3. Automatically selects the 'US Debit' application
4. Prompts the user to enter a PIN

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AIDs: A0000001524010, A0000001523010

Steps:

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

Pass Criteria:

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

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 not prompt for Application Selection
3. Automatically selects the 'Discover Debit' application
4. Uses Signature/No CVM as the CVM for the transaction

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AIDs: A0000001524010, A0000001523010

Steps:

1. Start a Purchase transaction for $79.00
2. When prompted for card entry, insert Test Card 12
3. When prompted, select 'Credit'

Pass Criteria:

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

Comments:

3.3.11.33 CD.MCCL.C13-T01

CD.MCCL.C13-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 13 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AID: A0000001524010

Steps:

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

Pass Criteria:

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

Comments:

3.3.11.34 CD.MCCL.C13-T02

CD.MCCL.C13-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 13 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AID: A0000001524010

Steps:

1. Start a Purchase transaction for $79.00
2. When prompted for card entry, insert Test Card 13
3. When prompted, select 'Credit'

Pass Criteria:

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

Comments:

3.3.11.35 CD.MCCL.C14-T01

CD.MCCL.C14-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 14 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.11.36 CD.MCCL.C15-T01

CD.MCCL.C15-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 15 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AID: A0000002771010

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.11.37 CD.MCCL.C16-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Merchant Controlled by filtering the Candidate List
3. Terminal supports the following AID: A0000002771010

Steps:

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

Pass Criteria:

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

Comments:

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

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

3.3.12.1 CD.SEAS.C01-T01

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

Type: Contact

Purpose:

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

1. Prompts for Credit and Debit (user selects 'Credit')
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: A0000000031010, 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 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. "A0000000031010" – 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:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AIDs: A0000000031010, A0000000980840

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'Visa Debit' and 'US Debit'
3. User is able to select 'US Debit'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000980840" – AID selected was 'US Debit'
   c. "0135" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.12.3 CD.SEAS.C01-T03

CD.SEAS.C01-T03 Credit/Debit Prompting, Standard EMV Application List Card 01 - Test 03

Type: Contactless

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Standard EMV Application Selection
3. Terminal supports AID A0000000031010, 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 not prompted to select an application
3. The 'Visa Debit' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Contactless" – indicates card was tapped
   b. "A0000000031010" – 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 not 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 A0000000031010, 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 not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'Visa Debit' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Contactless" – indicates card was tapped
   b. "A0000000031010" – 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 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: 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:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'US Debit' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000980840" – AID selected was 'US Debit'
   c. "0135" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.12.6 CD.SEAS.C02-T02

CD.SEAS.C02-T02 Credit/Debit Prompting, Standard EMV Application Selection Card 02 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

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. "A0000000980840" – 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: A0000000031010, 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. "A000000003101001" – 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: A0000000031010, A0000000980840

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
3. User is able to select 'Visa Debit'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A000000003101002" – 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: A0000000031010, 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: A0000000033010

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. "A0000000033010" – 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: A0000000041010, A0000000042203

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'Mastercard Debit' and 'US Maestro'
3. User is able to select 'Mastercard'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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: A0000000041010, 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. "A0000000042203" – AID selected was 'US Maestro'
   c. "9130" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.12.13 CD.SEAS.C05-T03

CD.SEAS.C05-T03 Credit/Debit Prompting, Standard EMV Application Selection Card 05 - Test 03

Type: Contactless

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AIDs: A0000000041010, A0000000042203
4. Contactless CVM Floor limit is $0

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'Mastercard Debit' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Contactless" – indicates card was tapped
   b. "A0000000041010" – 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 not prompt for Application Selection
3. Automatically selects the 'Mastercard Debit' application
4. Does not 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: A0000000041010, A0000000042203
4. Contactless CVM Floor limit is above $20

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'Mastercard Debit' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Contactless" – indicates card was tapped
   b. "A0000000041010" – 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: 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 '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. "A0000000043060D0561111" – 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:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'Maestro1' and 'Maestro2'
3. User is able to select 'Maestro2'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000043060D0562222" – 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: A0000000041010, A0000000043060

Steps:

1. Start a Purchase transaction for $20.00
2. When prompted for card entry, insert Test Card 07
3. When prompted, select 'Credit'
4. Select 'Mastercard' application when prompted

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'Mastercard' and 'Maestro'
3. User is able to select 'Mastercard'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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: A0000000041010, 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'
3. User is able to select 'Mastercard'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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: A0000000041010, 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'
3. User is able to select 'Maestro'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000043060" – AID selected was 'Maestro'
   c. "0051" - last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.12.20 CD.SEAS.C08-T01

CD.SEAS.C08-T01 Credit/Debit Prompting, Standard EMV Application Selection Card 08 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

1. Start a Purchase transaction for $20.00
2. When prompted for card entry, insert Test Card 08
3. When prompted, select 'Credit'
4. Select 'US Checking' application when prompted

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'US Checking' and 'US Savings'
3. User is able to select 'US Checking'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000042203D0561111" – 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'
3. User is able to select 'US Checking'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000042203D0561111" – 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: A0000000042203

Steps:

1. Start a Purchase transaction for $20.00
2. When prompted for card entry, insert Test Card 08
3. When prompted, select 'Credit'
4. Select 'US Savings' application when prompted

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'US Checking' and 'US Savings'
3. User is able to select 'US Savings'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000042203D0562222" – AID selected was 'US Savings'
   c. "9015" – last 4 digits of the PAN
   d. "Signature panel" or "No signature required" – Signature or No CVM was used

Comments:

3.3.12.23 CD.SEAS.C08-T04

CD.SEAS.C08-T04 Credit/Debit Prompting, Standard EMV Application Selection Card 08 - Test 04

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'US Checking' and 'US Savings'
3. User is able to select 'US Savings'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000042203D0562222" – 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
3. When prompted, select 'Credit'
4. Select 'Mastercard' application when prompted

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
3. User is able to select 'Mastercard'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
3. User is able to select 'Maestro'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000043060" – 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:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
3. User is able to select 'US Maestro'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000042203" – 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 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 Standard EMV Application Selection
3. Terminal supports the following AID: A0000000042203

Steps:

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

Pass Criteria:

1. User is not prompted to select 'Credit' or 'Debit'
2. User is not prompted to select an application
3. The 'US Maestro' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000042203" – 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:

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. When prompted, select 'Credit'

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is not prompted to select an application
3. The 'US Maestro' application is automatically selected
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates the card was inserted
   b. "A0000000042203" – 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:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
3. User is able to select 'Mastercard Debit'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – AID selected was 'Mastercard Debit'
   c. "0060" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.12.30 CD.SEAS.C11-T02

CD.SEAS.C11-T02 Credit/Debit Prompting, Standard EMV Application Selection Card 11 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A0000000042203
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
3. User is able to select 'Mastercard Debit'
4. When a PIN is not entered, transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000041010" – 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
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:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
3. User is able to select 'US Checking'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A000000004220301" – 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 A0000000042203
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
3. User is able to select 'US Checking'
4. When a PIN is not entered, transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A000000004220301" – 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:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
3. User is able to select 'Maestro'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000000043060" – 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:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
3. User is able to select 'US Savings'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A000000004220302" – AID selected was 'US Savings'
   c. "0051" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.12.35 CD.SEAS.C11-T07

CD.SEAS.C11-T07 Credit/Debit Prompting, Standard EMV Application Selection Card 11 - Test 07

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A0000000042203
4. PIN Bypass is supported

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
3. User is able to select 'US Savings'
4. When a PIN is not entered, transaction continues with No CVM or Signature
5. The transaction is approved
6. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A000000004220302" – AID selected was 'US Savings'
   c. "0051" – last 4 digits of the PAN
   d. "No signature required" or "Signature panel" – No CVM or Signature CVM was used

Comments:

3.3.12.36 CD.SEAS.C12-T01

CD.SEAS.C12-T01 Credit/Debit Prompting, Standard EMV Application List Card 12 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AIDs: A0000001524010, A0000001523010

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'US Debit' and 'Discover Debit'
3. User is able to select 'Discover Debit'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000001523010" – AID selected was 'Discover Debit'
   c. "0005" – last 4 digits of the PAN
   d. Signature panel" or "No signature required" – Signature or No CVM was used

Comments:

3.3.12.37 CD.SEAS.C12-T02

CD.SEAS.C12-T02 Credit/Debit Prompting, Standard EMV Application List Card 12 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AIDs: A0000001524010, A0000001523010

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'US Debit' and 'Discover Debit'
3. User is able to select 'US Debit'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000001524010" – AID selected was 'US Debit'
   c. "0005" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.12.38 CD.SEAS.C12-T03

CD.SEAS.C12-T03 Credit/Debit Prompting, Standard EMV Application List Card 12 - Test 03

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AIDs: A0000001524010, A0000001523010

Steps:

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

Pass Criteria:

1. User is prompted to select 'Credit' and 'Debit'
2. User is prompted to select 'US Debit' and 'Discover Debit'
3. User is able to select 'Discover Debit'
4. The transaction is approved
5. Receipt shows:
   a. "Chip" – indicates card was inserted
   b. "A0000001523010" – AID selected was 'Discover Debit'
   c. "0005" – last 4 digits of the PAN
   d. "Verified by PIN" – PIN CVM was used

Comments:

3.3.12.39 CD.SEAS.C12-T04

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

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 not prompt for Application Selection
3. Automatically selects the 'US Debit' application
4. Does not 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:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AID: A0000001524010

Steps:

1. Start a Purchase transaction for $79.00
2. When prompted for card entry, insert Test Card 13
3. When prompted, select 'Credit'

Pass Criteria:

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

Comments:

3.3.12.43 CD.SEAS.C14-T01

CD.SEAS.C14-T01 Credit/Debit Prompting, Standard EMV Application List Card 14 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AID: A0000006200620

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.12.44 CD.SEAS.C15-T01

CD.SEAS.C15-T01 Credit/Debit Prompting, Standard EMV Application List Card 15 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AID: A0000002771010

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.12.45 CD.SEAS.C16-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

1. Application is configured as Credit/Debit Prompting
2. Application Selection is Standard EMV Application Selection
3. Terminal supports the following AID: A0000002771010

Steps:

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

Pass Criteria:

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

Comments:

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

Chapter 4 - UL USA Debit EMV Test Card Set Profiles

CAUTION

Multiple consecutive incorrect PIN entry attempts may result in the card being blocked.
This is known as being 'PIN Blocked'.
If this occurs, it will no longer be possible to enter an Offline PIN,
which will cause all future transactions to be declined.

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

NOTICE

Interac Flash cards have a '1xxxxx' BIN range. These cards are supported by all Canadian processors but are not yet supported by all U.S. and international processors.

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

This Test Card Set contains 16 cards with at least one card from each of the following card brands.

	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
AID list	A0000000031010 A0000000980840	A0000000980840	A000000003101001 A000000003101002 A0000000980840
PAN list	4761 7390 0101 0135	4761 7390 0101 0135	4761 7390 0101 0176
Expiry Date	12/2022	12/2022	12/2022
Service Code	201	201	201
Interface	Contact, Contactless, MSR	Contact, MSR	Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	$10.00	$10.00	$10.00
Issuer Country Code	840 - USA	840 - USA	840 - USA
Application Currency Code	840 - USD	840 - USD	840 - USD
Language	'en' - English	'en' - English	'en' - English
Card Version	v4.0	v4.0	v4.0

	Test Card 04	Test Card 05	Test Card 06
Brand	Visa	Mastercard	Mastercard
Description (Card + types)	Interlink	Global / Common	Maestro Dual-Funding
AID list	A0000000033010	A0000000041010 A0000000042203	A0000000043060 D0561111 A0000000043060 D05621222
PAN on plastic	4761 7390 0101 0671	5413 3300 8909 9130	5413 3300 0000 2010
Expiry Date	12/2022	12/2022	12/2022
Service Code	201	201	220
Interface	Contact, MSR	Contact, Contactless, MSR	Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	$10.00	$20.00	$20.00
Issuer Country Code	840 - USA	840 - USA	840 - USA
Application Currency Code	840 - USD	840 - USD	840 - USD
Language	‘en’ - English	‘en’ - English	‘en’ - English
Card Version	v4.0	v4.0	v4.0

	Test Card 07	Test Card 08	Test Card 09
Brand	Mastercard	Mastercard	Mastercard
Description	Credit / Int’l	U.S. Maestro - Dual-Funding	Credit / Global / U.S. Common
AID list	A0000000041010 A00000000043060	A0000000042203 D0561111 A0000000042203 D0562222	A0000000041010 A0000000043060 A0000000042203
PAN on plastic	5413 3300 8902 0060	5413 3300 8909 9007	5413 3300 8902 0060
Expiry Date	12/2022	12/2022	12/2022
Service Code	201	220	201
Interface	Contact, MSR	Contact, MSR	Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	$20.00	$20.00	$20.00
Issuer Country Code	826 - GBR	840 - USA	840 - USA
Application Currency Code	826 - GBP	840 - USD	840 - USD
Language	‘en’ - English	‘en’ - English	‘en’ - English
Card Version	v4.0	v4.0	v4.0

	Test Card 10	Test Card 11	Test Card 12
Brand	Mastercard	Mastercard	Discover
Description	U.S. Maestro	MC+U.S. Maestro / Maestro+U.S. Maestro	Discover U.S. Debit / Discover
AID list	A0000000042203	A0000000041010 A000000004220301 A0000000043060 A000000004220302	A0000001524010 A0000001523010
PAN on plastic	5413 3300 8909 9130	5413 3300 8909 0060	6011 9737 0000 0005
Expiry Date	12/2022	12/2022	12/2022
Service Code	201	201	201
Interface	Contact, MSR	Contact, MSR	Contactless, Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	$20.00	$20.00	$79.00
Issuer Country Code	840 - USA	840 - USA	840 - USA
Application Currency Code	840 - USD	840 - USD	840 - USD
Language	‘en’ - English	‘en’ - English	‘enesfr’ (English, Spanish, French)
Card Version	v4.0	v4.0	v4.0

	Test Card 13	Test Card 14	Test Card 15
Brand	Discover	DNA	Interac
Description	Single AID	Debit Network Alliance	Canadian Debit
AID list	A0000001524010	A0000006200620	A0000002771010
PAN on plastic	6011 9737 0000 0005	4000 0000 0000 0028	1967 3028 3901 8644
Expiry Date	12/2022	12/2022	12/2022
Service Code	201	201	220
Interface	Contact, MSR	Contact, MSR	Contactless, Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	$79.00	$10.00	$30.00
Issuer Country Code	840 - USA	840 - USA	124 - CAN
Application Currency Code	840 - USD	840 - USD	124 -CAD
Language	‘en’ - English	‘en’ - English	‘en’ - English
Card Version	v4.0	v4.0	v4.0

	Test Card 16
Brand	Interac
Description	Canadian Debit
AID list	A0000002771010
PAN on plastic	4506 4450 0693 1933
Expiry Date	12/2022
Service Code	220
Interface	Contact, MSR
CVM	See card definition
Approval Amount	$30.00
Issuer Country Code	124 - CAN
Application Currency Code	124 - CAD
Language	'en' - English
Card Version	v4.0

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

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

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

4.1.1 Contact: CVM List - Visa Debit, AID A0000000031010

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

4.1.2 Contact: Application Tag data, AID A0000000031010

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	56 49 53 41 20 44 45 42 49 54 - 'VISA DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01 19 55 94 58 00 00 0F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 30 31 20 20 20 20 - 'USA DEBIT/Test Card 01'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VSDC]	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04

Tag	Element name	Data v4.0
8D	Card Risk Management Data Object List 2 (CDOL2)	**8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A**
8E	Cardholder Verification Method (CVM) List	**00 00 00 00 00 00 00 00 02 01 42 04 1E 04 02 05 5E 00 42 00 1F 00**
94	Application File Locator (AFL)	**08 01 02 00**
9F 07	Application Usage Control	**FF 80** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	**00 96**
9F 0D	Issuer Action Code - Default	**FC 50 AC 88 00**
9F 0E	Issuer Action Code - Denial	**00 00 00 00 00**
9F 0F	Issuer Action Code - Online	**FC 70 BC 98 00**
9F 10	Issuer Application Data [VSDC]	**xx xx A0 xx xx xx xx ***
9F 11	Issuer Code Table Index	**01**
9F 12	Application Preferred Name	**56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 20** - 'Visa Debit'
9F 13	Last Online Application Transaction Counter (ATC) Register	**xx xx ***
9F 17	Personal Identification Number (PIN) Try Counter	**01**
9F 26	Application Cryptogram (AC)	**xx xx xx xx xx xx xx xx ***
9F 27	Cryptogram Information Data (CID)	**80**
9F 36	Application Transaction Counter (ATC)	**xx xx ***
9F 42	Application Currency Code	**08 40** - USD
9F 44	Application Currency Exponent	**02**
9F 4F	Transaction Log Format	**9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 9F 27 01**
9F 51	Application Currency Code [VSDC]	**08 40** - USD
9F 52	Application Default Action [VSDC VIS 1.5]	**00 00 00 00 00 00**
9F 56	Issuer Authentication Indicator [VSDC]	**80**
9F 57	Issuer Country Code [VSDC]	**08 40** - USA
9F 5D	Available Offline Spending Amount [VSDC]	**00 00 00 00 00 00**
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	**10 00 10 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	

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

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 value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	55 53 20 44 45 42 49 54 - 'US DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01 19 55 94 58 00 00 0F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 30 31 20 20 20 20 - 'USA DEBIT/Test Card 01'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VSDC]	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 98 08 40
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 01 02 05 42 00 1F 00 00 00 00 00
94	Application File Locator (AFL)	08 01 02 00

9F 07	Application Usage Control	**AB 80** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	**00 96**
9F 0D	Issuer Action Code - Default	**FC 50 AC 88 00**
9F 0E	Issuer Action Code - Denial	**00 00 00 00 00**
9F 0F	Issuer Action Code - Online	**FC 70 BC 98 00**
9F 10	Issuer Application Data [VSDC]	**xx xx A0 xx xx xx xx ***
9F 11	Issuer Code Table Index	**01**
9F 12	Application Preferred Name	**55 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20** - 'US Debit'
9F 13	Last Online Application Transaction Counter (ATC) Register	**xx xx ***
9F 17	Personal Identification Number (PIN) Try Counter	**01**
9F 26	Application Cryptogram (AC)	**xx xx xx xx xx xx xx xx ***
9F 27	Cryptogram Information Data (CID)	**80**
9F 36	Application Transaction Counter (ATC)	**xx xx ***
9F 38	Processing Options Data Object List (PDOL)	**9F 06 05**
9F 42	Application Currency Code	**08 40** - USD
9F 44	Application Currency Exponent	**02**
9F 4F	Transaction Log Format	**9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 9F 27 01**
9F 51	Application Currency Code [VSDC]	**08 40** - USD
9F 52	Application Default Action [VSDC VIS 1.5]	**00 00 00 00 00 00**
9F 56	Issuer Authentication Indicator [VSDC]	**80**
9F 57	Issuer Country Code [VSDC]	**08 40** - USA
9F 5D	Available Offline Spending Amount [VSDC]	**00 00 00 00 00 00**
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	**10 00 80 00**
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	
BF 5A	AIP/AFL Entries Template	
BF 5B	Application Internal Data Template	**DF 01 02 00 00**

4.1.5 Contactless: Application Tag data, AID A0000000031010

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	**47 61 73**
50	Application Label	**56 49 53 41 20 44 45 42 49 54** - 'VISA DEBIT'
57	Track 2 Equivalent Data	**47 61 73 90 01 01 01 35 D2 21 22 01 19 55 94 58 00 00 1F**

5A	Application Primary Account Number (PAN)	**47 61 73 90 01 01 01 35**
5F 24	Application Expiration Date	**22 12 31**
5F 28	Issuer Country Code	**08 40** - USA
5F 2D	Language Preference	**65 6E** - 'en' (English)
5F 34	Application PAN Sequence Number	**01**
5F 55	Issuer Country Code (alpha2 format)	**55 53** - 'US'
82	Application Interchange Profile [VCPS]	**00 00** BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification NOT supported b4 - Terminal risk mgmt NOT to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 00 03 10 10**
87	Application Priority Indicator	**01**
94	Application File Locator (AFL)	**08 03 03 00**
9F 07	Application Usage Control [VCPS]	**C0 80** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods NOT valid b5 - International goods NOT valid b4 - Domestic services NOT valid b3 - International services NOT valid b2 - ATMs NOT valid b1- Terminals other than ATMs NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed
9F 10	Issuer Application Data [VSDC]	**xx xx xx xx xx xx xx ***
9F 11	Issuer Code Table Index	**01**
9F 12	Application Preferred Name	**56 69 73 61 20 44 65 62 69 74 20 20 20 20 20** - 'Visa Debit'
9F 13	Last Online Application Transaction Counter (ATC) Register	**xx xx ***
9F 17	Personal Identification Number (PIN) Try Counter	**01**
9F 26	Application Cryptogram (AC)	**xx xx xx xx xx xx xx xx ***
9F 27	Cryptogram Information Data (CID)	**80**
9F 36	Application Transaction Counter (ATC)	**xx xx ***
9F 38	Processing Options Data Object List (PDOL)	**9F 66 04 9F 02 06 9F 03 06 9F 1A 02 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 00**
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	**10 00 10 00**

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

4.1.6 Contactless: Application Tag data, AID A0000000980840

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	**47 61 73**
50	Application Label	**55 53 20 44 45 42 49 54** - 'VISA DEBIT'
57	Track 2 Equivalent Data	**47 61 73 90 01 01 01 35 D2 21 22 01 19 55 94 58 00 00 1F**
5A	Application Primary Account Number (PAN)	**47 61 73 90 01 01 01 35**
5F 24	Application Expiration Date	**22 12 31**
5F 28	Issuer Country Code	**08 40** - USA
5F 2D	Language Preference	**65 6E** - 'en' (English)
5F 34	Application PAN Sequence Number	**01**
5F 55	Issuer Country Code (alpha2 format)	**55 53** - 'US'
82	Application Interchange Profile [VCPS]	**00 00** BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification NOT supported b4 - Terminal risk mgmt NOT to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 00 98 08 40**
87	Application Priority Indicator	**02**

94	Application File Locator (AFL)	**08 03 03 00**
9F 07	Application Usage Control [VCPS]	**C0 80** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods NOT valid b5 - International goods NOT valid b4 - Domestic services NOT valid b3 - International services NOT valid b2 - ATMs NOT valid b1- Terminals other than ATMs NOT valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed
9F 10	Issuer Application Data [VSDC]	**xx xx A0 xx xx xx xx ***
9F 11	Issuer Code Table Index	**01**
9F 12	Application Preferred Name	**55 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20** - 'US Debit'
9F 13	Last Online Application Transaction Counter (ATC) Register	**xx xx ***
9F 17	Personal Identification Number (PIN) Try Counter	**01**
9F 26	Application Cryptogram (AC)	**xx xx xx xx xx xx xx xx ***
9F 27	Cryptogram Information Data (CID)	**80**
9F 36	Application Transaction Counter (ATC)	**xx xx ***
9F 38	Processing Options Data Object List (PDOL)	**9F 66 04 9F 02 06 9F 03 06 9F 1A 02 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 00**
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	**10 00 80 00**
9F 69	Card Authentication Related Data [qVSDC]	**01 00 00 00 00 00 00** LAST TWO BYTES BYTE 1: b8 - Online PIN NOT required b7 - Signature NOT required b6 - Do NOT go online if Offline Data Authentication fails and Reader is online capable b5 - Do NOT switch interface if Offline Data Authentication fails and Reader supports contact chip b4 - Do NOT go Online if Application Expired b3 - Do NOT switch interface for Cash Transactions b2 - Do NOT switch interface for Cashback Transactions b1 - Is valid for contactless ATM transactions BYTE 2: b8 - Consumer Device CVM NOT performed b7 - Card does NOT Support Issuer Update Processing at POS b2 - NOT valid at ATMs
9F 6C	Card Transaction Qualifiers [qVSDC VCPS 2.1]	**00 00**

9F 6E	Form Factor Indicator [qVSDC]	20 70 00 00
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	
BF 5A	AIP/AFL Entries Template	
BF 5B	Application Internal Data Template	DF 01 02 00 00

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 value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	55 53 20 44 45 42 49 54 - 'US DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01 19 55 94 58 00 00 0F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 30 32 20 20 20 - 'USA DEBIT/Test Card 02'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VSDC]	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using

Tag	Element name	Data v4.0
		External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 98 08 40
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 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 01 00 04 02 05 42 00 1F 00
8F	Certification Authority Public Key Index	92
90	Issuer Public Key Certificate	3C 96 F7 65 8F BC 29 A2 02 F1 91 46 BD E9 21 66 B0 F6 22 1B BC CB 02 E3 26 71 0B 9E 22 9D 16 FA E9 AD 0C 87 4C 06 85 91 6E 19 F0 E3 26 93 EE 20 1B CE 23 59 50 9A 6D 65 72 F8 EC 3F C3 73 12 6B 34 3F 9C B8 15 3D 61 B7 EA B2 D4 2D E1 9D 56 08 31 85 A0 3D D1 4C 26 8D 40 DF 08 35 C5 5E AB FA 38 ED 28 BC E4 2C D0 01 3D A9 4F 80 05 18 B7 53 C2 46 EF FB A0 8F D2 02 9B AD 5D FC F0 DA F0 7B 7D 80 1C 46 5F FD 25 2C 70 B9 21 53 B3 30 D9 5D CA 2F A1 FA AE 2D 01 68 A4 EA 8B 47 5C D8 05 DC 32 AA 96 4C 17 BF CD 2C D5 D0 30 9A B0 EA 76 1B
92	Issuer Public Key Remainder	50 DA 20 DD A8 95 3B 69 3F ED 84 36 68 31 BA 1E EA 97 F7 8F 79 2A CF 8C B9 8F DF 01 49 A7 B7 8F DA 1C 49 67
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 B0 01 01 00
9F 07	Application Usage Control	AB 80 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	00 96
9F 0D	Issuer Action Code - Default	FC 50 AC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC 70 BC 98 00
9F 10	Issuer Application Data [VSDC]	xx xx A0 xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 44 65 62 69 74 - 'US Debit'
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *
9F 17	Personal Identification Number (PIN) Try Counter	03
9F 1F	Track 1 Discretionary Data	20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80

Tag	Element name	Data v4.0
9F 32	Issuer Public Key Exponent	03
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 44	Application Currency Exponent	02
9F 46	ICC Public Key Certificate	21 F3 FF 81 73 C5 37 DA BD F2 DB C2 EB 72 94 5A 6A C6 BB E3 80 62 08 44 25 D7 67 37 BA 98 E5 A6 64 10 81 D7 40 C0 7B 68 00 00 55 9E DF FF 5B CA FC F5 B8 35 A9 C4 98 48 75 B5 C7 8C 91 D0 A4 80 CC CF 0D 9A 2D 53 91 D2 DC 56 53 96 08 B1 32 55 B9 56 D4 A4 E5 D7 FB 85 EF 3C D0 9E 09 7A D2 14 C6 0A 25 8E DF 15 B9 1C 32 9A D9 8E 5B E9 44 7F A3 27 C6 0B 57 81 53 CF 5A 6F 62 18 F9 44 D8 79 89 00 0E FE E3 B1 6D D7 8C FB CC EF 5C B5 EF C1 A6 D8 1C 53 8F 16 85 0E 91 64 6A 2D E0 DA DC E4 17 1F 52 B1 54 F1 67 CD 52 8A 88 E3 56 16 71 F4
9F 47	ICC Public Key Exponent	03
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04
9F 4A	Static Data Authentication Tag List	82
9F 51	Application Currency Code [VSDC]	08 40 - USD
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00 00 00
9F 53	Consecutive Transaction Limit (International) [VSDC]	00
9F 54	Cumulative Total Transaction Amount Limit [VSDC]	00 00 00 00 00 00
9F 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 00
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	00
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	10 00 10 00
9F 72	Consecutive Transaction Limit (International-Country) [VSDC]	00
BF 55	Contactless Counters Data Template	DF 11 01 00 DF 21 01 00 DF 31 01 00
BF 56	Counters Data Template	DF 11 01 02 DF 21 01 00 DF 31 01 00
BF 57	International Counters Data Template	DF 11 01 02 DF 21 01 00 DF 31 01 00 DF 51 01 02 DF 61 01 00
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00 DF 21 06 00 00 00 00 00 00 DF 31 06 00 00 00 00 00 00
BF 5B	Application Internal Data Template	DF 01 02 00 00

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

A contact-only, 3-AID combination Visa credit & debit card 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

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 A000000003101001

* Tag value changes with card usage

Tag	Element name	Data v4.0
50	Application Label	**56 49 53 41 20 43 52 45 44 49 54** - 'VISA CREDIT'
50	Application Label	**56 49 53 41 20 43 52 45 44 49 54 20 20 20 20 20** - 'VISA CREDIT'
57	Track 2 Equivalent Data	**47 61 73 90 01 01 01 76 D2 21 22 01 11 14 38 04 40 00 00**
5A	Application Primary Account Number (PAN)	**47 61 73 90 01 01 01 76**
5F 20	Cardholder Name	**55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 30 33 20 20 20 20** - 'USA DEBIT/Test Card 03'
5F 24	Application Expiration Date	**22 12 31**
5F 28	Issuer Country Code	**08 40** - USA
5F 2D	Language Preference	**65 6E** - 'en' (English)
5F 30	Service Code	**02 01**
5F 34	Application PAN Sequence Number	**01**
82	Application Interchange Profile [VSDC]	**18 00** BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 00 03 10 10 01**
87	Application Priority Indicator	**01**
8C	Card Risk Management Data Object List 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**

Tag	Element name	Data v4.0
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 01 42 04 1E 04 00 05 5E 00 1F 00 00 00
94	Application File Locator (AFL)	08 01 01 00 10 01 01 01
9F 07	Application Usage Control	FF 00 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	00 96
9F 0D	Issuer Action Code - Default	FC 50 AC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC 70 BC 98 00
9F 10	Issuer Application Data [VSDC]	xx xx A0 xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	56 69 73 61 20 43 72 65 64 69 74 20 20 20 20 20 - 'Visa Credit'
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *
9F 17	Personal Identification Number (PIN) Try Counter	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List (PDOL)	9F 06 07
9F 44	Application Currency Exponent	02
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 9F 27 01
9F 51	Application Currency Code [VSDC]	08 40 - USD
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00 00 00
9F 56	Issuer Authentication Indicator [VSDC]	00
9F 57	Issuer Country Code [VSDC]	08 40 - USA
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	DF 11 0B 10 00 00 00 00 00 00 00 00 00 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

4.3.3 Contact: CVM List - Visa Debit, AID A000000003101002

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 A000000003101002

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	56 49 53 41 20 44 45 42 49 54 - 'VISA DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01 11 14 38 04 40 00 00
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 30 33 20 20 20 20 - 'USA DEBIT/Test Card 03'
5F 24	Application Expiration Date	22 12 31
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VSDC]	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10 02
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 01 42 04 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 v4.0
9F 07	Application Usage Control	**FF 80** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	**00 96**
9F 0D	Issuer Action Code - Default	**FC 50 AC 88 00**
9F 0E	Issuer Action Code - Denial	**00 00 00 00 00**
9F 0F	Issuer Action Code - Online	**FC 70 BC 98 00**
9F 10	Issuer Application Data [VSDC]	**xx xx A0 xx xx xx xx ***
9F 11	Issuer Code Table Index	**01**
9F 12	Application Preferred Name	**56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 20** - 'Visa Debit'
9F 13	Last Online Application Transaction Counter (ATC) Register	**xx xx ***
9F 17	Personal Identification Number (PIN) Try Counter	**00**
9F 26	Application Cryptogram (AC)	**xx xx xx xx xx xx xx xx ***
9F 27	Cryptogram Information Data (CID)	**80**
9F 36	Application Transaction Counter (ATC)	**xx xx ***
9F 38	Processing Options Data Object List (PDOL)	**9F 06 07**
9F 44	Application Currency Exponent	**02**
9F 4F	Transaction Log Format	**9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 9F 27 01**
9F 51	Application Currency Code [VSDC]	**08 40** - USD
9F 52	Application Default Action [VSDC VIS 1.5]	**00 00 00 00 00 00**
9F 56	Issuer Authentication Indicator [VSDC]	**00**
9F 57	Issuer Country Code [VSDC]	**08 40** - USA
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	**DF 11 0B 10 00 00 00 00 00 00 00 00 00 DF 12 0B 20 00 00 00 00 00 00 00 00 00 00**
BF 5A	AIP/AFL Entries Template	**DF 11 0B 18 00 08 08 01 01 00 10 01 01 00 DF 12 0B 18 00 08 08 01 01 00 10 02 02 00**
BF 5B	Application Internal Data Template	**DF 01 02 C0 00 DF 02 01 F1**

4.3.5 Contact: CVM List - U.S. Common Debit, AID A00000000980840

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 A0000000980840

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	55 53 20 44 45 42 49 54 - 'US DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01 11 14 38 04 40 00 00
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	55 53 20 44 45 42 49 54 - 'US DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 21 22 01 11 14 38 04 40 00 00
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 30 33 20 20 20 20 - 'USA DEBIT/Test Card 03'
5F 24	Application Expiration Date	22 12 31
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VSDC]	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 98 08 40
87	Application Priority Indicator	03
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 01 00 04 02 05 42 00 1F 00 00 00
94	Application File Locator (AFL)	08 01 01 00 10 02 02 00

Tag	Element name	Data v4.0
9F 07	Application Usage Control	**AB 80** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	**00 96**
9F 0D	Issuer Action Code - Default	**FC 50 AC 88 00**
9F 0E	Issuer Action Code - Denial	**00 00 00 00 00**
9F 0F	Issuer Action Code - Online	**FC 70 BC 98 00**
9F 10	Issuer Application Data [VSDC]	**xx xx A0 xx xx xx xx ***
9F 11	Issuer Code Table Index	**01**
9F 12	Application Preferred Name	**55 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20** - 'US Debit'
9F 13	Last Online Application Transaction Counter (ATC) Register	**xx xx ***
9F 17	Personal Identification Number (PIN) Try Counter	**00**
9F 26	Application Cryptogram (AC)	**xx xx xx xx xx xx xx xx ***
9F 27	Cryptogram Information Data (CID)	**80**
9F 36	Application Transaction Counter (ATC)	**xx xx ***
9F 38	Processing Options Data Object List (PDOL)	**9F 06 07**
9F 44	Application Currency Exponent	**02**
9F 4F	Transaction Log Format	**9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 9F 27 01**
9F 51	Application Currency Code [VSDC]	**08 40** - USD
9F 52	Application Default Action [VSDC VIS 1.5]	**00 00 00 00 00 00**
9F 56	Issuer Authentication Indicator [VSDC]	**00**
9F 57	Issuer Country Code [VSDC]	**08 40** - USA
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	**DF 11 0B 10 00 00 00 00 00 00 00 00 00 DF 12 0B 20 00 00 00 00 00 00 00 00 00 00**
BF 5A	AIP/AFL Entries Template	**DF 11 0B 18 00 08 08 01 01 00 10 01 01 00 DF 12 0B 18 00 08 08 01 01 00 10 02 02 00**
BF 5B	Application Internal Data Template	**DF 01 02 C0 00 DF 02 01 F1**

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

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

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

4.4.1 Contact: CVM List - Visa Interlink, AID A0000000033010

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 A0000000033010

* Tag value changes with card usage

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

Tag	Element name	Data v4.0
90	Issuer Public Key Certificate	3C 96 F7 65 8F BC 29 A2 02 F1 91 46 BD E9 21 66 B0 F6 22 1B BC CB 02 E3 26 71 0B 9E 22 9D 16 FA E9 AD 0C 87 4C 06 85 91 6E 19 F0 E3 26 93 EE 20 1B CE 23 59 50 9A 6D 65 72 F8 EC 3F C3 73 12 6B 34 3F 9C B8 15 3D 61 B7 EA B2 D4 2D E1 9D 56 08 31 85 A0 3D D1 4C 26 8D 40 DF 08 35 C5 5E AB FA 38 ED 28 BC E4 2C D0 01 3D A9 4F 80 05 18 B7 53 C2 46 EF FB A0 8F D2 02 9B AD 5D FC F0 DA F0 7B 7D 80 1C 46 5F FD 25 2C 70 B9 21 53 B3 30 D9 5D CA 2F A1 FA AE 2D 01 68 A4 EA 8B 47 5C D8 05 DC 32 AA 96 4C 17 BF CD 2C D5 D0 30 9A B0 EA 76 1B
92	Issuer Public Key Remainder	50 DA 20 DD A8 95 3B 69 3F ED 84 36 68 31 BA 1E EA 97 F7 8F 79 2A CF 8C B9 8F DF 01 49 A7 B7 8F DA 1C 49 67
93	Signed Static Application Data	3C 0C 66 F5 58 76 E7 3F 44 94 4B 52 35 BA 27 35 7E E8 4F 93 8B 34 FA 2F 06 BE C8 49 01 1B AE 57 8C F9 5E 92 8E 6E CC 62 72 7C C7 FD B3 0B 8C 88 31 DE AB 60 2C E1 25 D1 43 90 02 C0 C3 D8 C7 78 92 C9 7C 5A 57 73 1C 36 D6 8E 5A 0F A5 1A DC 94 09 4F A9 AB 02 DE DF 23 B4 60 F0 E1 9E 69 65 87 38 E7 4E 36 B4 08 81 44 7A 2A E0 11 EE DE 0C 61 4B 41 B1 56 98 D1 55 63 05 95 A5 75 0D B7 C5 B9 22 84 0B DA 84 8B 61 D9 14 2A F8 35 7E 27 D4 92 B7 03 F1 C6 E3 D2 3C AC DC 60 E3 C7 8F 00 36 E1 0C A4 1B B7 53 6D 0F 4F C4 18 6D 5B 3D A0 44 12
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 10 06 06 00 B0 01 01 00
9F 07	Application Usage Control	FF C0 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	00 96
9F 0D	Issuer Action Code - Default	B0 50 80 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 50 80 98 00
9F 10	Issuer Application Data [VSDC]	xx xx A0 xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	49 6E 74 65 72 6C 69 6E 6B - 'Interlink'
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *
9F 17	Personal Identification Number (PIN) Try Counter	09
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 30
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80

Tag	Element name	Data v4.0
9F 32	Issuer Public Key Exponent	03
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 44	Application Currency Exponent	02
9F 46	ICC Public Key Certificate	2F CB B2 98 34 1B A8 B3 EB 7E D3 23 63 AE 2A 27 D2 FF 39 79 D1 44 8A 87 5B D6 C1 22 8C 00 6D 3B 77 BC 8E E1 5F 53 4D 54 3D F8 D8 52 60 DA FF E1 0A 40 21 F2 55 5D 84 BA 17 48 3C 25 28 09 A6 D3 8B 1E D3 4F 03 CD 85 60 0D EA 4F 04 BF 7A 17 0C D3 61 1A 3A ED A8 AC FE E5 46 1E 70 9E 5C 82 3E 6D B4 D7 17 26 C3 78 88 93 19 61 ED 6E DD 3F 97 4F 3E D2 92 8B 16 26 20 5B EF 07 23 80 EF 6F 9E 0C 55 36 CF 63 46 EE A2 4E FB 62 81 0F 9D 61 1F 51 4F C1 A3 87 A4 1E 8D 51 72 95 CF 19 1E FA D6 A4 ED 7E 16 00 9D D2 F9 4C A4 A9 0E A7 C1 DA CF
9F 47	ICC Public Key Exponent	03
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04
9F 4A	Static Data Authentication Tag List	82
9F 51	Application Currency Code [VSDC]	08 40 - USD
9F 52	Application Default Action [VSDC VIS 1.5]	C0 00 00 00 00 00
9F 53	Consecutive Transaction Limit (International) [VSDC]	00
9F 54	Cumulative Total Transaction Amount Limit [VSDC]	00 00 00 00 00 00
9F 56	Issuer Authentication Indicator [VSDC]	80
9F 57	Issuer Country Code [VSDC]	08 40 - USA
9F 58	Consecutive Transaction Counter Limit [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 00
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	00
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	10 00 D0 00
9F 6D	VLP Reset Threshold [VSDC]	00 00 00 00 00 00
9F 77	VLP Funds Limit [VSDC]	00 00 00 00 00 00
9F 78	VLP Single Transaction Limit [VSDC]	00 00 00 00 00 00
9F 79	VLP Available Funds [VSDC]	00 00 00 00 00 00
BF 55	Contactless Counters Data Template	DF 61 06 00 00 00 00 00 00 DF 71 06 00 00 00 00 00 00 DF 41 06 00 00 00 00 00 00 DF 51 06 00 00 00 00 00 00 DF 11 01 00 DF 21 01 00 DF 31 01 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 01 DF 21 01 00 DF 31 01 00 DF 51 01 01
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00 DF 21 06 00 00 00 00 00 00 DF 31 06 00 00 00 00 00 00
BF 5B	Application Internal Data Template	DF 01 02 00 00

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

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

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

4.5.1 Contact: CVM List - Mastercard debit, AID A0000000041010

Cardholder Verification Method List ('4201 0205 5E03 4203 1F00')			
CVM	**Verification Method**	**Conditions**	**If unsuccessful**
1	Online PIN	Unattended Cash	Next CVM
2	Online PIN	Purchase with Cashback	Fail
3	Signature (paper)	Terminal supports CVM type	Next CVM
4	Online PIN	Terminal supports CVM type	Next CVM
5	No CVM required	Always	Fail

4.5.2 Contact: Application Tag data, AID A0000000041010

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	4D 41 53 54 45 52 43 41 52 44 20 44 45 42 49 54 - 'MASTERCARD DEBIT'
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 21 22 01 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 91 30
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 30 35 20 20 20 20 - 'USA DEBIT/Test Card 05'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	11
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08

Tag	Element name	Data v4.0
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 42 01 02 05 5E 03 42 03 1F 00
94	Application File Locator (AFL)	10 01 03 00
94	Application File Locator (AFL)	10 01 03 00
9F 07	Application Usage Control	FF C0 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00
9F 10	Issuer Application Data [M/Chip Advance]	xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 73 74 65 72 63 61 72 64 20 44 65 62 69 74 - 'Mastercard Debit'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN) Try Counter	03
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14
9F 6E	Third Party Data [Mastercard]	08 40 00 00 30 30 00
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 96 00 97 02 00 5A 5A 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 00 00
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	06 50 00
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	06 FB 00
C6	PIN Try Limit [M/Chip Advance]	03
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code [Mastercard]	08 40 - USD
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	00 58 00

Tag	Element name	Data v4.0
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	06 F8 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	08 00 00
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	00 00 80 00 E6 02
D9	Application File Locator (Contactless)	08 02 03 00
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	C1
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	08 40 - USD
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	C1
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	08 40
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00

Tag	Element name	Data v4.0
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	03
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	10 01 01 00
DF 41	DS Management Control [M/Chip Advance]	20

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

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

4.5.4 Contact: Application Tag data, AID A0000000042203

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 4D 41 45 53 54 52 4F - 'US MAESTRO'
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 21 22 01 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 91 30
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 30 35 20 20 20 20 - 'USA DEBIT/Test Card 05'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	11

Tag	Element name	Data v4.0
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 04 22 03
87	Application Priority Indicator	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 05 42 03 1F 03 00 00 00 00
94	Application File Locator (AFL)	10 01 02 00 10 04 04 00
94	Application File Locator (AFL)	10 01 02 00 10 04 04 00
9F 07	Application Usage Control	FF C0 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00
9F 10	Issuer Application Data [M/Chip Advance]	xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 4D 61 65 63 74 72 6F 20 20 20 20 20 20 - 'US Maestro'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN) Try Counter	03
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14
9F 6E	Third Party Data [Mastercard]	08 40 00 00 30 30 00

Tag	Element name	Data v4.0
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 00 96 00 97 02 00 5A 5A 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 00 00
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	06 50 00
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	06 FB 00
C6	PIN Try Limit [M/Chip Advance]	03
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code [Mastercard]	08 40 - USD
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	06 58 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	06 F8 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	08 00 00
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	00 00 80 00 E6 02
D9	Application File Locator (Contactless)	08 02 02 00 08 04 04 00
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	C1
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	08 40 - USD
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	C1
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00

Tag	Element name	Data v4.0
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	08 40 - USD
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	03
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	10 01 01 00
DF 41	DS Management Control [M/Chip Advance]	20

4.5.5 Contactless: CVM List - Mastercard debit, AID A0000000041010

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

5	Fail CVM Processing	Always	Fail

4.5.6 Contactless: Application Tag data, AID A0000000041010

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	4D 41 53 54 45 52 43 41 52 44 20 44 45 42 49 54 - 'MASTERCARD DEBIT'
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 21 22 01 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 91 30
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 34	Application PAN Sequence Number	11
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	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 using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 05 5E 03 02 03 1F 03 00 00
94	Application File Locator (AFL)	08 02 03 00
9F 07	Application Usage Control	FF C0 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B4 50 84 00 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B4 70 84 80 00
9F 10	Issuer Application Data [M/Chip Advance]	xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01

Tag	Element name	Data v4.0
9F 12	Application Preferred Name	4D 61 73 74 65 72 63 61 72 64 20 44 65 62 69 74 - 'Mastercard DEBIT'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN) Try Counter	03
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4A	Static Data Authentication Tag List	82
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14
9F 6E	Third Party Data [Mastercard]	08 40 00 00 30 30 00
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 00 96 00 97 02 00 5A 5A 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 00 00
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	06 50 00
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	06 FB 00
C6	PIN Try Limit [M/Chip Advance]	03
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code [Mastercard]	08 40 - USD
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	00 58 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	06 F8 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	08 00 00
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 00 08 40 00 00 00 08 40 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	00 00 80 00 E6 02
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00

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

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

4.5.8 Contactless: Application Tag data, AID A0000000042203

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	**54 13 33**
50	Application Label	**55 53 20 4D 41 45 53 54 52 4F** - 'US MAESTRO'
57	Track 2 Equivalent Data	**54 13 33 00 89 09 91 30 D2 21 22 01 14 83 59 49 00 0F**
5A	Application Primary Account Number (PAN)	**54 13 33 00 89 09 91 30**
5F 24	Application Expiration Date	**22 12 31**
5F 25	Application Effective Date	**xx xx xx ***
5F 28	Issuer Country Code	**08 40** - USA
5F 2D	Language Preference	**65 6E** - 'en' (English)
5F 34	Application PAN Sequence Number	**11**
5F 55	Issuer Country Code (alpha2 format)	**55 53** - 'US'
82	Application Interchange Profile	**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 using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 00 04 22 03**
87	Application Priority Indicator	**02**
8C	Card Risk Management Data Object List 1 (CDOL1)	**9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14**
8D	Card Risk Management Data Object List 2 (CDOL2)	**91 0A 8A 02 95 05 9F 37 04 9F 4C 08**
8E	Cardholder Verification Method (CVM) List	**00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00**
94	Application File Locator (AFL)	**08 02 02 00 08 04 04 00**

Tag	Element name	Data v4.0
9F 07	Application Usage Control	**FF C0** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	**00 02**
9F 0D	Issuer Action Code - Default	**B4 50 84 00 00**
9F 0E	Issuer Action Code - Denial	**00 00 00 00 00**
9F 0F	Issuer Action Code - Online	**B4 70 84 80 00**
9F 10	Issuer Application Data [M/Chip Advance]	**xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx ***
9F 11	Issuer Code Table Index	**01**
9F 12	Application Preferred Name	**55 53 20 4D 61 65 73 74 72 6F 20 20 20 20 20 20** - 'US Maestro'
9F 14	Counter 1 Lower Limit [Mastercard]	**00**
9F 17	Personal Identification Number (PIN) Try Counter	**03**
9F 23	Counter 1 Upper Limit [Mastercard]	**00**
9F 26	Application Cryptogram (AC)	**xx xx xx xx xx xx xx xx ***
9F 27	Cryptogram Information Data (CID)	**80**
9F 36	Application Transaction Counter (ATC)	**xx xx ***
9F 42	Application Currency Code	**08 40** - USD
9F 4A	Static Data Authentication Tag List	**82**
9F 4D	Transaction Log Entry	**0B 0A**
9F 4F	Transaction Log Format	**9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14**
9F 6E	Third Party Data [Mastercard]	**08 40 00 00 30 30 00**
9F 7E	Application Life Cycle Data [Mastercard]	**04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 00 96 00 97 02 00 5A 5A 00 00 00 00 00 00 00 00 00 00 00 00**
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	**00 00 00**
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	**06 50 00**
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	**06 FB 00**
C6	PIN Try Limit [M/Chip Advance]	**03**
C7	CDOL1 Related Data Length [Mastercard]	**42**
C8	CRM Country Code [Mastercard]	**08 40** - USA
C9	Accumulator 1 Currency Code [Mastercard]	**08 40** - USD
CA	Accumulator 1 Lower Limit [Mastercard]	**00 00 00 00 00 00**
CB	Accumulator 1 Upper Limit [Mastercard]	**00 00 00 00 00 00**
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	**06 58 00**
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	**06 F8 00**

Tag	Element name	Data v4.0
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	08 00 00
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	00 00 80 00 E6 02
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00

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

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

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

4.6.1 Contact: CVM List - Maestro Debit, AID A0000000043060D0561111

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

4.6.2 Contact: Application Tag data, AID A0000000043060D0561111

* Tag value changes with card usage

Tag	Element name	Data v4.0
50	Application Label	4D 41 45 53 54 52 4F 31 - 'MAESTRO1'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 01 0D 22 12 22 01 48 35 94 90 0F
5A	Application Primary Account Number (PAN)	67 99 99 89 00 00 02 01 0F
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 30 36 20 20 20 20 - 'USA DEBIT/Test Card 06'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	05 28 - NLD
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	31

Tag	Element name	Data v4.0
82	Application Interchange Profile	**18 00** BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 00 04 30 60 D0 56 11 11**
87	Application Priority Indicator	**01**
8C	Card Risk Management Data Object List 1 (CDOL1)	**9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14**
8D	Card Risk Management Data Object List 2 (CDOL2)	**91 0A 8A 02 95 05 9F 37 04 9F 4C 08**
8E	Cardholder Verification Method (CVM) List	**00 00 00 00 00 00 00 00 41 03 02 03 00 00 00 00**
94	Application File Locator (AFL)	**08 01 01 00**
94	Application File Locator (AFL)	**08 01 01 00**
9F 07	Application Usage Control	**FF C0** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	**00 02**
9F 0A	Application Selection Registered Proprietary Data	**00 01 01 01**
9F 0D	Issuer Action Code - Default	**B0 50 BC 88 00**
9F 0E	Issuer Action Code - Denial	**00 00 00 00 00**
9F 0F	Issuer Action Code - Online	**B0 70 BC 98 00**
9F 10	Issuer Application Data [M/Chip Advance]	**xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx ***
9F 11	Issuer Code Table Index	**01**
9F 12	Application Preferred Name	**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) Try Counter	**09**
9F 23	Counter 1 Upper Limit [Mastercard]	**00**
9F 26	Application Cryptogram (AC)	**xx xx xx xx xx xx xx xx ***
9F 27	Cryptogram Information Data (CID)	**80**
9F 36	Application Transaction Counter (ATC)	**xx xx ***
9F 42	Application Currency Code	**09 78** - EUR
9F 4D	Transaction Log Entry	**0B 0A**
9F 4F	Transaction Log Format	**9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14**

Tag	Element name	Data v4.0
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 30 60 17 10 13 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 00 00
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	7F 50 00
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	3F FB 00
C6	PIN Try Limit [M/Chip Advance]	09
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	05 28 - NLD
C9	Accumulator 1 Currency Code [Mastercard]	09 78 - EUR
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	00 00 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	00 00 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00
D1	Accumulator 1 Currency Conversion Table [Mastercard]	09 78 00 00 00 09 78 00 00 00 09 78 00 00 00 09 78 00 00 00 09 78 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	86 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	00 00 00 00 00 00
D9	Application File Locator (Contactless)	
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	00
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	09 99
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	00
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00

Tag	Element name	Data v4.0
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	09 78 - EUR
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20

4.6.3 Contact: CVM List - Maestro Debit, AID A0000000043060D0562222

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

4.6.4 Contact: Application Tag data, AID A0000000043060D0562222

* Tag value changes with card usage

Tag	Element name	Data v4.0
50	Application Label	4D 41 45 53 54 52 4F 32 - 'MAESTRO2'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 02 8D 22 12 22 01 48 35 94 90 0F
5A	Application Primary Account Number (PAN)	67 99 99 89 00 00 02 02 8F
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 30 36 20 20 20 20 - 'USA DEBIT/Test Card 06'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	05 28 - NLD
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	32
82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 04 30 60 D0 56 22 22
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 41 03 02 03 00 00 00 00
94	Application File Locator (AFL)	08 01 01 00
94	Application File Locator (AFL)	08 01 01 00
9F 07	Application Usage Control	FF C0 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0A	Application Selection Registered Proprietary Data	00 01 01 01
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00

Tag	Element name	Data v4.0
9F 10	Issuer Application Data [M/Chip Advance]	xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 65 73 74 72 6F 32 20 20 20 20 20 20 20 - 'Maestro2'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN) Try Counter	03
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	09 78 - EUR
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 30 60 17 10 13 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 00 00
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	7F 50 00
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	3F FB 00
C6	PIN Try Limit [M/Chip Advance]	03
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	05 28 - NLD
C9	Accumulator 1 Currency Code [Mastercard]	09 78 - EUR
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	00 00 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	00 00 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00
D1	Accumulator 1 Currency Conversion Table [Mastercard]	09 78 00 00 00 09 78 00 00 00 09 78 00 00 00 09 78 00 00 00 09 78 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	86 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	00 00 00 00 00 00
D9	Application File Locator (Contactless)	
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	00

Tag	Element name	Data v4.0
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	09 99
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	00
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	09 78 - EUR
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00

Tag	Element name	Data v4.0
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20

4.7 Test Card 07 - Mastercard Int'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

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 value changes with card usage

Tag	Element name	Data v4.0
50	Application Label	4D 41 53 54 45 52 43 41 52 44 - 'MASTERCARD'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 21 22 01 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 02 00 60
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 30 37 20 20 20 20 - 'USA DEBIT/Test Card 07'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 26 - GBR
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	11

Tag	Element name	Data v4.0
82	Application Interchange Profile	**18 00** BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 00 04 10 10**
87	Application Priority Indicator	**01**
8C	Card Risk Management Data Object List 1 (CDOL1)	**9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14**
8D	Card Risk Management Data Object List 2 (CDOL2)	**91 0A 8A 02 95 05 9F 37 04 9F 4C 08**
8E	Cardholder Verification Method (CVM) List	**00 00 00 00 00 00 00 00 41 03 42 03 5E 03 5F 03 00 00**
94	Application File Locator (AFL)	**08 01 01 00**
94	Application File Locator (AFL)	**08 01 01 00**
9F 07	Application Usage Control	**FF 00** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	**00 02**
9F 0A	Application Selection Registered Proprietary Data	**00 01 01 02**
9F 0D	Issuer Action Code - Default	**B0 50 BC 88 00**
9F 0E	Issuer Action Code - Denial	**00 00 00 00 00**
9F 0F	Issuer Action Code - Online	**B0 70 BC 98 00**
9F 10	Issuer Application Data [M/Chip Advance]	**xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx ***
9F 11	Issuer Code Table Index	**01**
9F 12	Application Preferred Name	**4D 61 73 74 65 72 63 61 72 64 20 20 20 20 20 20** - 'Mastercard'
9F 14	Counter 1 Lower Limit [Mastercard]	**00**
9F 17	Personal Identification Number (PIN) Try Counter	**09**
9F 23	Counter 1 Upper Limit [Mastercard]	**00**
9F 26	Application Cryptogram (AC)	**xx xx xx xx xx xx xx xx ***
9F 27	Cryptogram Information Data (CID)	**80**
9F 36	Application Transaction Counter (ATC)	**xx xx ***
9F 42	Application Currency Code	**08 26** - GBP
9F 4D	Transaction Log Entry	**0B 0A**
9F 4F	Transaction Log Format	**9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14**

Tag	Element name	Data v4.0
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 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]	06 00 00
C6	PIN Try Limit [M/Chip Advance]	09
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	08 26 - GBR
C9	Accumulator 1 Currency Code [Mastercard]	08 26 - GBP
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	00 00 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	00 00 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 26 00 00 00 08 26 00 00 00 08 26 00 00 00 08 26 00 00 00 08 26 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	84 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	00 00 00 00 00 00
D9	Application File Locator (Contactless)	
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	00
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	09 99
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	00
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00

Tag	Element name	Data v4.0
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	08 26 - GBP
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20

4.7.3 Contact: CVM List - Maestro debit, AID A0000000043060

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

4.7.4 Contact: Application Tag data, AID A0000000043060

* Tag value changes with card usage

Tag	Element name	Data v4.0
50	Application Label	4D 41 45 53 54 52 4F - 'MAESTRO'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 00 05 1D 22 12 22 01 48 35 94 90 0F
5A	Application Primary Account Number (PAN)	67 99 99 89 00 00 02 00 05 1F
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 30 37 20 20 20 20 - 'USA DEBIT/Test Card 07'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 26 - GBR
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	12
82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 04 30 60
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 41 03 42 03 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 C0 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0A	Application Selection Registered Proprietary Data	00 01 01 01
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00

Tag	Element name	Data v4.0
9F 10	Issuer Application Data [M/Chip Advance]	xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 65 73 74 72 6F 20 20 20 20 20 20 20 20 - 'Maestro'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN) Try Counter	09
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 26 - GBP
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 30 60 00 00 00 00 00 00 00 00 00 00 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) - Decline [M/Chip Advance]	00 00 00
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	7F 50 00
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	3F FB 00
C6	PIN Try Limit [M/Chip Advance]	03
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	08 26 - GBR
C9	Accumulator 1 Currency Code [Mastercard]	08 26 - GBP
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	00 00 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	00 00 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 26 00 00 00 08 26 00 00 00 08 26 00 00 00 08 26 00 00 00 08 26 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	86 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	00 00 00 00 00 00
D9	Application File Locator (Contactless)	
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	00

Tag	Element name	Data v4.0
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	09 99
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	00
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	08 26 - GBP
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00

Tag	Element name	Data v4.0
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20

4.8 Test Card 08 - U.S. Maestro, CO, 1-AID (2-Funding), English, USA, USD

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

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

4.8.1 Contact: CVM List - Mastercard U.S. Checking, AID A0000000042203D0561111

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

4.8.2 Contact: Application Tag data, AID A0000000042203D0561111

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 43 48 45 43 4B 49 4E 47 - 'US CHECKING'
57	Track 2 Equivalent Data	54 13 33 00 89 09 90 07 D2 21 22 20 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 90 07
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 30 38 20 20 20 20 - 'USA DEBIT/Test Card 08'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	31
5F 55	Issuer Country Code (alpha2 format)	55 53

Tag	Element name	Data v4.0
82	Application Interchange Profile	**18 00** BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 00 04 22 03 D0 56 11 11**
87	Application Priority Indicator	**01**
8C	Card Risk Management Data Object List 1 (CDOL1)	**9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14**
8D	Card Risk Management Data Object List 2 (CDOL2)	**91 0A 8A 02 95 05 9F 37 04 9F 4C 08**
8E	Cardholder Verification Method (CVM) List	**00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00**
94	Application File Locator (AFL)	**08 01 01 00**
94	Application File Locator (AFL)	**08 01 01 00**
9F 07	Application Usage Control	**FF C0** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	**00 02**
9F 0D	Issuer Action Code - Default	**B0 50 9C 88 00**
9F 0E	Issuer Action Code - Denial	**00 00 00 00 00**
9F 0F	Issuer Action Code - Online	**B0 70 9C 98 00**
9F 10	Issuer Application Data [M/Chip Advance]	**xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx ***
9F 11	Issuer Code Table Index	**01**
9F 12	Application Preferred Name	**55 53 20 43 68 65 63 6B 69 6E 67** - 'US Checking'
9F 14	Counter 1 Lower Limit [Mastercard]	**00**
9F 17	Personal Identification Number (PIN) Try Counter	**03**
9F 23	Counter 1 Upper Limit [Mastercard]	**00**
9F 26	Application Cryptogram (AC)	**xx xx xx xx xx xx xx xx ***
9F 27	Cryptogram Information Data (CID)	**80**
9F 36	Application 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 v4.0
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 22 03 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 00 00
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	06 00 00
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	06 00 00
C6	PIN Try Limit [M/Chip Advance]	03
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code [Mastercard]	08 40 - USD
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	00 00 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	00 00 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	00 00 00 00 00 00
D9	Application File Locator (Contactless)	
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	00
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	09 99
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	00
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00

Tag	Element name	Data v4.0
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	08 40 - USD
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20

4.8.3 Contact: CVM List - Mastercard U.S. Savings, AID A0000000042203D0562222

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

4.8.4 Contact: Application Tag data, AID A0000000042203D0562222

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 53 41 56 49 4E 47 53 - 'US SAVINGS'
57	Track 2 Equivalent Data	54 13 33 00 89 09 90 15 D2 21 22 20 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 90 15
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 30 38 20 20 20 20 - 'USA DEBIT/Test Card 08'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	32
5F 55	Issuer Country Code (alpha2 format)	55 53
82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 04 22 03 D0 56 22 22
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00
94	Application File Locator (AFL)	08 01 01 00
94	Application File Locator (AFL)	08 01 01 00

Tag	Element name	Data v4.0
9F 07	Application Usage Control	**FF C0** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	**00 02**
9F 0D	Issuer Action Code - Default	**B0 50 9C 88 00**
9F 0E	Issuer Action Code - Denial	**00 00 00 00 00**
9F 0F	Issuer Action Code - Online	**B0 70 9C 98 00**
9F 10	Issuer Application Data [M/Chip Advance]	**xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx ***
9F 11	Issuer Code Table Index	**01**
9F 12	Application Preferred Name	**55 53 20 53 61 76 69 6E 67 73** - 'US Savings'
9F 14	Counter 1 Lower Limit [Mastercard]	**00**
9F 17	Personal Identification Number (PIN) Try Counter	**03**
9F 23	Counter 1 Upper Limit [Mastercard]	**00**
9F 26	Application Cryptogram (AC)	**xx xx xx xx xx xx xx xx ***
9F 27	Cryptogram Information Data (CID)	**80**
9F 36	Application Transaction Counter (ATC)	**xx xx ***
9F 42	Application Currency Code	**08 40** - USD
9F 4D	Transaction Log Entry	**0B 0A**
9F 4F	Transaction Log Format	**9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14**
9F 7E	Application Life Cycle Data [Mastercard]	**04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 22 03 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00**
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	**00 00 00**
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	**06 00 00**
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	**06 00 00**
C6	PIN Try Limit [M/Chip Advance]	**03**
C7	CDOL1 Related Data Length [Mastercard]	**42**
C8	CRM Country Code [Mastercard]	**08 40** - USA
C9	Accumulator 1 Currency Code [Mastercard]	**08 40** - USD
CA	Accumulator 1 Lower Limit [Mastercard]	**00 00 00 00 00 00**
CB	Accumulator 1 Upper Limit [Mastercard]	**00 00 00 00 00 00**
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	**00 00 00**
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	**00 00 00**
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	**00 00 00**

Tag	Element name	Data v4.0
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	00 00 00 00 00 00
D9	Application File Locator (Contactless)	
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	00
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	09 99
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	00
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	08 40 - USA
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00

Tag	Element name	Data v4.0
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20

4.9 Test Card 09 - Mastercard, CO, 3-AID (Credit+Maestrox2), English, USA, USD

A contact-only, 3-AID combination Mastercard Credit, Maestro and U.S. Maestro with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

4.9.1 Contact: CVM List - Mastercard credit, AID A0000000041010

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 value changes with card usage

Tag	Element name	Data v4.0
50	Application Label	4D 41 53 54 45 52 43 41 52 44 - 'MASTERCARD'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 21 22 01 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 02 00 60

Tag	Element name	Data v4.0
5F 20	Cardholder Name	**55 41 54 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 30 39 20 20 20 20** - 'USA DEBIT/Test Card 09'
5F 24	Application Expiration Date	**22 12 31**
5F 25	Application Effective Date	**xx xx xx ***
5F 28	Issuer Country Code	**08 40** - USA
5F 2D	Language Preference	**65 6E** - 'en' (English)
5F 30	Service Code	**02 01**
5F 34	Application PAN Sequence Number	**11**
82	Application Interchange Profile	**18 00** BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 00 04 10 10**
87	Application Priority Indicator	**01**
8C	Card Risk Management Data Object List 1 (CDOL1)	**9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14**
8D	Card Risk Management Data Object List 2 (CDOL2)	**91 0A 8A 02 95 05 9F 37 04 9F 4C 08**
8E	Cardholder Verification Method (CVM) List	**00 00 00 00 00 00 00 00 41 03 42 03 5E 03 1F 00 00 00**
94	Application File Locator (AFL)	**08 01 01 00**
94	Application File Locator (AFL)	**08 01 01 00**
9F 07	Application Usage Control	**FF 00** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed 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 Advance]	**xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx ***
9F 11	Issuer Code Table Index	**01**
9F 12	Application Preferred Name	**4D 61 73 74 65 72 63 61 72 64 20 20 20 20 20 20** - 'Mastercard'
9F 14	Counter 1 Lower Limit [Mastercard]	**00**
9F 17	Personal Identification Number (PIN) Try Counter	**09**
9F 23	Counter 1 Upper Limit [Mastercard]	**00**
9F 26	Application Cryptogram (AC)	**xx xx xx xx xx xx xx xx ***

Tag	Element name	Data v4.0
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USA
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 00 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) - Decline [M/Chip Advance]	00 00 00
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	1F 50 00
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	3F FB 00
C6	PIN Try Limit [M/Chip Advance]	09
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code [Mastercard]	08 40 - USD
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	00 00 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	00 00 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	86 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	00 00 00 00 00 00
D9	Application File Locator (Contactless)	
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	00
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	09 99
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00

Tag	Element name	Data v4.0
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	00
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	08 40 - USD
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20

4.9.3 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

4.9.4 Contact: Application Tag data, AID A0000000043060

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	**67 99 99**
50	Application Label	**4D 41 45 53 54 52 4F** - 'MAESTRO'
57	Track 2 Equivalent Data	**67 99 99 89 00 00 02 00 05 1D 22 12 22 01 48 35 94 90 0F**
5A	Application Primary Account Number (PAN)	**67 99 99 89 00 00 02 00 05 1F**
5F 20	Cardholder Name	**55 41 54 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 30 39 20 20 20 20** - 'USA DEBIT/Test Card 09'
5F 24	Application Expiration Date	**22 12 31**
5F 25	Application Effective Date	**xx xx xx ***
5F 28	Issuer Country Code	**08 40** - USA
5F 2D	Language Preference	**65 6E** - 'en' (English)
5F 30	Service Code	**02 20**
5F 34	Application PAN Sequence Number	**12**
5F 55	Issuer Country Code (alpha2 format)	**55 53**
82	Application Interchange Profile	**18 00** BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 00 04 30 60**
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 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**

Tag	Element name	Data v4.0
9F 07	Application Usage Control	FF C0 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 10	Issuer Application Data [M/Chip Advance]	xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 65 73 74 72 6F 20 20 20 20 20 20 20 20 - 'Maestro'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN) Try Counter	03
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 30 60 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 00 00
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	1F 50 00
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	3F FB 00
C6	PIN Try Limit [M/Chip Advance]	03
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code [Mastercard]	08 40 - USD
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	06 50 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	06 FB 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00

Tag	Element name	Data v4.0
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	84 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D9	Application File Locator (Contactless)	08 01 01 00 08 03 03 00
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	C1
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	09 99
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	C1
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	08 40 - USD
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00

Tag	Element name	Data v4.0
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20

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

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 value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	67 99 99
50	Application Label	55 53 20 4D 41 45 53 54 52 4F - 'US MAESTRO'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 00 05 1D 22 12 22 01 48 35 94 90 0F
5A	Application Primary Account Number (PAN)	67 99 99 89 00 00 02 00 05 1F
5F 20	Cardholder Name	55 41 54 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 30 39 20 20 20 20 - 'USA DEBIT/Test Card 09'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	12
5F 55	Issuer Country Code (alpha2 format)	55 53

Tag	Element name	Data v4.0
82	Application Interchange Profile	**18 00** BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 00 04 22 03**
87	Application Priority Indicator	**03**
8C	Card Risk Management Data Object List 1 (CDOL1)	**9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 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 02 05 42 03 1F 03 00 00 00 00**
94	Application File Locator (AFL)	**08 01 01 00 08 03 03 00**
94	Application File Locator (AFL)	**08 01 01 00 08 03 03 00**
9F 07	Application Usage Control	**FF C0** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	**00 02**
9F 0D	Issuer Action Code - Default	**B0 50 9C 88 00**
9F 0E	Issuer Action Code - Denial	**00 00 00 00 00**
9F 0F	Issuer Action Code - Online	**B0 70 9C 98 00**
9F 10	Issuer Application Data [M/Chip Advance]	**xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx ***
9F 11	Issuer Code Table Index	**01**
9F 12	Application Preferred Name	**55 53 20 4D 61 65 73 74 72 6F** - 'US Maestro'
9F 14	Counter 1 Lower Limit [Mastercard]	**00**
9F 17	Personal Identification Number (PIN) Try Counter	**03**
9F 23	Counter 1 Upper Limit [Mastercard]	**00**
9F 26	Application Cryptogram (AC)	**xx xx xx xx xx xx xx xx ***
9F 27	Cryptogram Information Data (CID)	**80**
9F 36	Application Transaction Counter (ATC)	**xx xx ***
9F 42	Application Currency Code	**08 40** - USD
9F 4D	Transaction Log Entry	**0B 0A**
9F 4F	Transaction Log Format	**9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14**

Tag	Element name	Data v4.0
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 30 60 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 00 00
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	06 50 00
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	06 FB 00
C6	PIN Try Limit [M/Chip Advance]	03
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code [Mastercard]	08 40 - USD
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	06 50 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	06 FB 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D9	Application File Locator (Contactless)	08 01 01 00 08 03 03 00
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	C1
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	09 99
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	C1
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00

Tag	Element name	Data v4.0
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	08 40 - USD
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20

4.10 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 value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 4D 41 45 53 54 52 4F - 'US MAESTRO'
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 21 22 20 08 08 10 79 00 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 91 30
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 31 30 20 20 20 20 - 'USA DEBIT/Test Card 10'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	13
5F 55	Issuer Country Code (alpha2 format)	55 53
82	Application Interchange Profile [M/Chip, PayPass]	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 04 22 03
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 05 42 03 1F 03
8F	Certification Authority Public Key Index	FA

Tag	Element name	Data v4.0
90	Issuer Public Key Certificate	18 89 B9 97 E6 FC E8 4B 4A E7 AB 87 43 1C BD B3 DF 8C 1D 5A 55 A7 F6 0D 29 59 AF 3A 51 04 E7 58 83 17 ED 74 08 66 68 CF 1A 05 47 84 F7 49 3C 6D 74 7F A7 96 EC 14 D3 33 A6 8E C7 E0 08 62 95 9A 0B D0 F0 48 20 80 B7 1A C1 B7 62 5B 1B 8B 1F 35 A6 69 19 99 BA 78 F5 92 E2 3F 95 E9 96 09 D1 08 CF 1C 0E 30 8A 8B F6 4F BD E8 37 D3 CE 13 8A 50 DC 50 AF 4B 41 EE 53 D9 8A 11 B6 A8 1D DD 44 CC 43 0C 1E F3 BB 9D 1D 75 A0 2F AA 9C 81 4A FC 58
92	Issuer Public Key Remainder	D3 52 41 07
94	Application File Locator (AFL)	08 02 04 01 18 01 01 00 20 01 01 00
9F 07	Application Usage Control	FF C0 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00
9F 10	Issuer Application Data [M/Chip 4]	xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 4D 61 65 73 74 72 6F - 'US Maestro'
9F 14	Lower Consecutive Offline Limit	00
9F 17	Personal Identification Number (PIN) Try Counter	01
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
9F 23	Upper Consecutive Offline Limit	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 32	Issuer Public Key Exponent	03
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 44	Application Currency Exponent	02
9F 46	ICC Public Key Certificate	30 74 E6 E9 E9 3E DF BD CE 0D 80 6A 6B B6 A2 82 0C 30 1B ED 84 E9 3D 58 E9 EB 72 4A 54 D8 52 B4 4B A3 DC 14 1D 30 28 0B 77 D7 E6 11 F7 B2 1A C6 62 FE CD FE F1 C3 BD EF 60 0F 1E DD 68 8D 6A 83 A5 29 90 0D 51 94 3A 47 EB EF DC 97 28 EB B1 D5 35 D0 2E 49 B2 07 FC E6 A3 B2 4B B6 67 CD 45 B9 60 4E 99 9C 20 5F 3B 67 19 6B E1 48 D5 7A 50 06
9F 47	ICC Public Key Exponent	03

Tag	Element name	Data v4.0
9F 48	ICC Public Key Remainder	58 BB 79 E5 33 12 54 E2 90 1F 8F 61 64 82 20 8A 49 D5 34 33 D3 CD BF 04 B8 C2 F7 E7 42 C5 F6 C9 72 9A 0E 21 4F 62 DE 11 F8 3F
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04
9F 4A	Static Data Authentication Tag List	82
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06
9F 7E	Application Life Cycle Data [Mastercard]	03 10 0C 12 00 09 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 04 00 00 02 60 00 00 38 4A 02 11 50 35 43 44 30 37 32 20
C3	Card Issuer Action Code - Decline [Mastercard]	00 00 00
C4	Card Issuer Action Code - Default [Mastercard]	06 50 00
C5	Card Issuer Action Code - Online [Mastercard]	06 FB 00
C6	Counters [Mastercard]	00 02 00 00 00 00 00 00 00 00
C7	CDOL1 Related Data Length [Mastercard]	2B
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	CRM Currency Code [M/Chip4]	08 40 - USD
CA	Lower Cumulative Offline Transaction Amount [M/Chip]	00 00 00 00 00 00
CB	Upper Cumulative Offline Transaction Amount [M/Chip]	00 00 00 00 00 00
CD	Card Issuer Action Code - Default [PayPass M/Chip]	00 58 00
CE	Card Issuer Action Code - Online [PayPass M/Chip]	00 F8 00
CF	Card Issuer Action Code - Denial [PayPass M/Chip]	08 00 00
D1	Currency Conversion Table [M/Chip]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF 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 [M/Chip4]	00 10
D7	Application Control [PayPass M/Chip]	40 00 40
DF 02	Security Limits Status [Mastercard]	00

4.11 Test Card 11 - Mastercard, CO, 4-AID (MC+USM/Maestro+USM), English, USA, USD

A contact-only, 4-AID Mastercard debit card with a pair of multi-funding accounts (Mastercard-U.S. Maestro / Maestro-U.S. Maestro) with an Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

4.11.1 Contact: CVM List - Mastercard debit, AID A0000000041010

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 value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	4D 41 53 54 45 52 43 41 52 44 20 44 45 42 49 54 - 'MASTERCARD DEBIT'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 21 22 01 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 02 00 60
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 31 31 20 20 20 20 - 'USA DEBIT/Test Card 11'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	11
5F 55	Issuer Country Code (alpha2 format)	55 53
82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14

Tag	Element name	Data v4.0
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 05 41 03 42 03 5E 03 1F 00 00 00
94	Application File Locator (AFL)	08 01 02 00
94	Application File Locator (AFL)	08 01 02 00
9F 07	Application Usage Control	FF C0 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International 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 Advance]	xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 73 74 65 72 63 61 72 64 20 44 65 62 69 74 - 'Mastercard Debit'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN) Try Counter	09
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 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]	3F FB 00
C6	PIN Try Limit [M/Chip Advance]	09
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code [Mastercard]	08 40 - USD
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00

Tag	Element name	Data v4.0
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	06 50 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	06 FB 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	84 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D9	Application File Locator (Contactless)	08 01 01 00 08 03 03 00
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	C1
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	09 99
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	C1
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	08 40 - USD
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00

Tag	Element name	Data v4.0
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20

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

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

4.11.4 Contact: Application Tag data, AID A000000004220301

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 43 48 45 43 4B 49 4E 47 - 'US CHECKING'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 21 22 01 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 02 00 60
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 31 31 20 20 20 20 - 'USA DEBIT/Test Card 11'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	11

Tag	Element name	Data v4.0
5F 55	Issuer Country Code (alpha2 format)	55 53
82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 00 04 22 03 01
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00
94	Application File Locator (AFL)	08 01 01 00 08 03 03 00
94	Application File Locator (AFL)	08 01 01 00 08 03 03 00
9F 07	Application Usage Control	FF C0 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00
9F 10	Issuer Application Data [M/Chip Advance]	xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 43 68 65 63 6B 69 6E 67 20 20 20 20 20 - 'US Checking'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN) Try Counter	09
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx 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 v4.0
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 00 00
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	06 50 00
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	06 FB 00
C6	PIN Try Limit [M/Chip Advance]	09
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code [Mastercard]	08 40 - USD
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	06 50 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	06 FB 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D9	Application File Locator (Contactless)	08 01 01 00 08 03 03 00
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	C1
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	09 99
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	C1
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00

Tag	Element name	Data v4.0
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	08 40 - USD
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20

4.11.5 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 value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	**67 99 99**
50	Application Label	**4D 41 45 53 54 52 4F** - 'MAESTRO'
57	Track 2 Equivalent Data	**67 99 99 89 00 00 00 02 01 0D 22 12 22 01 48 35 94 90 0F**
5A	Application Primary Account Number (PAN)	**67 99 99 89 00 00 02 00 05 1F**
5F 20	Cardholder Name	**55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 31 31 20 20 20 20** - 'USA DEBIT/Test Card 11'
5F 24	Application Expiration Date	**22 12 31**
5F 25	Application Effective Date	**xx xx xx ***
5F 28	Issuer Country Code	**08 40** - USA
5F 2D	Language Preference	**65 6E** - 'en' (English)
5F 30	Service Code	**02 20**
5F 34	Application PAN Sequence Number	**12**
5F 55	Issuer Country Code (alpha2 format)	**55 53**
82	Application Interchange Profile	**18 00** BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 00 04 30 60**
87	Application Priority Indicator	**03**
8C	Card Risk Management Data Object List 1 (CDOL1)	**9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 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 02 05 41 03 02 03 00 00 00 00**
94	Application File Locator (AFL)	**08 01 02 00**
94	Application File Locator (AFL)	**08 01 02 00**

Tag	Element name	Data v4.0
9F 07	Application Usage Control	FF C0 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 10	Issuer Application Data [M/Chip Advance]	xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 65 73 74 72 6F 20 20 20 20 20 20 20 20 - 'Maestro'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN) Try Counter	09
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 30 60 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 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]	3F FB 00
C6	PIN Try Limit [M/Chip Advance]	09
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code [Mastercard]	08 40 - USD
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	06 50 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	06 FB 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00

Tag	Element name	Data v4.0
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	84 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D9	Application File Locator (Contactless)	08 01 01 00 08 03 03 00
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	C1
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	09 99
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	C1
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	08 40 - USD
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00

Tag	Element name	Data v4.0
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20

4.11.7 Contact: CVM List - U.S. Savings debit, AID 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 value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	67 99 99
50	Application Label	55 53 20 53 41 56 49 4E 47 53 - 'US SAVINGS'
57	Track 2 Equivalent Data	67 99 99 89 00 00 00 02 01 0D 22 12 22 01 48 35 94 90 0F
5A	Application Primary Account Number (PAN)	67 99 99 89 00 00 02 00 05 1F
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 31 31 20 20 20 20 - 'USA DEBIT/Test Card 11'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	12
5F 55	Issuer Country Code (alpha2 format)	55 53

Tag	Element name	Data v4.0
82	Application Interchange Profile	**18 00** BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 00 04 22 03 02**
87	Application Priority Indicator	**04**
8C	Card Risk Management Data Object List 1 (CDOL1)	**9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14**
8D	Card Risk Management Data Object List 2 (CDOL2)	**91 0A 8A 02 95 05 9F 37 04 9F 4C 08**
8E	Cardholder Verification Method (CVM) List	**00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00**
94	Application File Locator (AFL)	**08 01 01 00 08 03 03 00**
94	Application File Locator (AFL)	**08 01 01 00 08 03 03 00**
9F 07	Application Usage Control	**FF C0** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	**00 02**
9F 0D	Issuer Action Code - Default	**B0 50 9C 88 00**
9F 0E	Issuer Action Code - Denial	**00 00 00 00 00**
9F 0F	Issuer Action Code - Online	**B0 70 9C 98 00**
9F 10	Issuer Application Data [M/Chip Advance]	**xx xx A0 xx xx xx xx xx xx xx xx xx xx xx xx xx xx ***
9F 11	Issuer Code Table Index	**01**
9F 12	Application Preferred Name	**55 53 20 53 61 76 69 6E 67 73 20 20 20 20 20** - 'US Savings'
9F 14	Counter 1 Lower Limit [Mastercard]	**00**
9F 17	Personal Identification Number (PIN) Try Counter	**09**
9F 23	Counter 1 Upper Limit [Mastercard]	**00**
9F 26	Application Cryptogram (AC)	**xx 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 v4.0
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 30 60 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 00 00
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	06 50 00
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	06 FB 00
C6	PIN Try Limit [M/Chip Advance]	09
C7	CDOL1 Related Data Length [Mastercard]	42
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code [Mastercard]	08 40 - USD
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	06 50 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	06 FB 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF
D5	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	80 00 80 00 C6 02
D9	Application File Locator (Contactless)	08 01 01 00 08 03 03 00
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	C1
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [Mastercard]	09 99
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	C1
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00

Tag	Element name	Data v4.0
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 24	MTA Currency Code [M/Chip Advance]	08 40 - USD
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	00
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00
DF 41	DS Management Control [M/Chip Advance]	20

4.12 Test Card 12 - Discover, DI, 2-AID (U.S. Debit, Discover), English/Spanish/French, USA, USD

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

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

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

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 value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	55 53 20 44 45 42 49 54 - 'US DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 00 05 D2 21 22 01 10 00 07 49 00 00 0F
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 00 05
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 31 32 20 20 20 20 - 'USA DEBIT/Test Card 12'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E 65 73 66 72 - 'enesfr' (English, Spanish, French)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - US
82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 01 52 40 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 34 03
8D	Card Risk Management Data Object List 2 (CDOL2)	91 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

Tag	Element name	Data v4.0
9F 07	Application Usage Control	FF 00 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	00 01
9F 0D	Issuer Action Code - Default	B0 68 C4 E8 00
9F 0E	Issuer Action Code - Denial	00 10 00 00 00
9F 0F	Issuer Action Code - Online	B0 68 C4 F8 00
9F 10	Issuer Application Data [DPAS]	xx 06 xx xx xx xx xx *
9F 17	Personal Identification Number (PIN) Try Counter	03
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List (PDOL)	9F 02 06 9F 1A 02 5F 2A 02 9A 03 9F 35 01
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 1A 02 95 05 9C 01 8A 02 9F 37 04 9F 03 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02
9F 78	Application State [D-PAS]	01
C1	Application Configuration Options [DPAS]	15 48
C2	Issuer Life Cycle Data (ILCD) [DPAS]	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
C3	Currency Conversion Codes 1 [DPAS]	08 40 00 01 00
C4	Currency Conversion Codes 2 [DPAS]	08 40 00 01 00
C5	Card Action Code - Denial [DPAS]	01 00
C6	Card Action Code - Default [DPAS]	2E 1F
C7	Card Action Code - Online [DPAS]	FE 1F
D0	Issuer Application Data ObjectList (IADOL) [DPAS]	
D2	CRM Country Code [DPAS]	08 40 - USA
D3	CRM Currency Code [DPAS]	08 40 - USD
DF 11	PDOL Check Table - Profile (PDOLP) [DPAS]	01 09 41 00 00 41 A0 11 FF 01 01
DF 20	Transaction Profile Objects(TPO0) [DPAS]	00 18 00 08 01 01 00 10 01 01 00 18 01 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 01 00 FE 1F 2E 1F 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
DF 21	Transaction Profile Objects(TPO1) [DPAS]	E0 10 00 08 01 01 00 10 01 01 00 18 02 02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 01 00 FE 1F 2E 1F 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

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 value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	44 49 53 43 4F 56 45 52 20 44 45 42 49 54 - 'DISCOVER DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 00 05 D2 21 22 01 10 00 07 49 00 00 0F
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 00 05
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 31 32 20 20 20 20 - 'USA DEBIT/Test Card 12'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E 65 73 66 72 - 'enesfr' (English, Spanish, French)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - US
82	Application Interchange Profile	10 00 BYTE 1: b7 - Offline 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 Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 01 52 30 10
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 34 03
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 01 02 03 42 03 1E 03 1F 03
94	Application File Locator (AFL)	08 01 01 00 10 01 01 00 18 02 02 00

Tag	Element name	Data v4.0
9F 07	Application Usage Control	FF 00 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	00 01
9F 0D	Issuer Action Code - Default	B0 68 C4 E8 00
9F 0E	Issuer Action Code - Denial	00 10 00 00 00
9F 0F	Issuer Action Code - Online	B0 68 C4 F8 00
9F 10	Issuer Application Data [DPAS]	xx 06 xx xx xx xx xx *
9F 17	Personal Identification Number (PIN) Try Counter	03
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List (PDOL)	9F 02 06 9F 1A 02 5F 2A 02 9A 03 9F 35 01
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 1A 02 95 05 9C 01 8A 02 9F 37 04 9F 03 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02
9F 78	Application State [D-PAS]	01
C1	Application Configuration Options [DPAS]	15 48
C2	Issuer Life Cycle Data (ILCD) [DPAS]	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
C3	Currency Conversion Codes 1 [DPAS]	08 40 00 01 00
C4	Currency Conversion Codes 2 [DPAS]	08 40 00 01 00
C5	Card Action Code - Denial [DPAS]	01 00
C6	Card Action Code - Default [DPAS]	2E 1F
C7	Card Action Code - Online [DPAS]	FE 1F
D0	Issuer Application Data ObjectList (IADOL) [DPAS]	
D2	CRM Country Code [DPAS]	08 40 - USA
D3	CRM Currency Code [DPAS]	08 40 - USD
DF 11	PDOL Check Table - Profile (PDOLP) [DPAS]	01 09 41 00 00 41 A0 11 FF 01 01
DF 20	Transaction Profile Objects(TPO0) [DPAS]	00 18 00 08 01 01 00 10 01 01 00 18 01 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 01 00 FE 1F 2E 1F 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
DF 21	Transaction Profile Objects(TPO1) [DPAS]	E0 10 00 08 01 01 00 10 01 01 00 18 02 02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 01 00 FE 1F 2E 1F 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

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

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

4.12.6 Contactless: Application Tag data, AID A0000001524010

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	**60 11 97**
50	Application Label	**55 53 20 44 45 42 49 54 20 20** - 'US DEBIT'
57	Track 2 Data [Discover]	**60 11 97 37 00 00 00 05 D2 21 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	**22 12 31**
5F 25	Application Effective Date	**xx xx xx ***
5F 28	Issuer Country Code	**08 40** - USA
5F 2D	Language Preference	**65 6E 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 Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 01 52 40 10**
87	Application Priority Indicator	**01**
8E	Cardholder Verification Method (CVM) List	**00 00 00 00 00 00 00 00 02 03 1F 03**
94	Application File Locator (AFL)	**08 01 02 00 18 01 01 00**
9F 07	Application Usage Control	**FF 00** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	**00 01**
9F 10	Issuer Application Data [DPAS CL]	**xx 15 xx xx xx xx xx xx xx xx ***

Tag	Element name	Data v4.0
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List (PDOL)	9F 66 04 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9A 03 9C 01 9F 37 04
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 1A 02 95 05 9C 01 8A 02 9F 37 04 9F 03 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02
9F 6C	Card Transaction Qualifiers [DPAS]	00 00
9F 71	Card Processing Requirements [DPAS]	00 89
9F 71	Card Processing Requirements [DPAS]	00 89
9F 78	Application State [D-PAS]	01
BF 51	Contactless D-PAS MS and ZIP Default Profile	82 02 00 00 94 04 08 01 01 00
C0	Contactless Application Configuration Options (CL-ACO)	03 88
C2	Issuer Life Cycle Data (ILCD) [DPAS]	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
C3	Currency Conversion Codes 1 [DPAS]	08 40 00 01 00
C4	Currency Conversion Codes 2 [DPAS]	08 40 00 01 00
C8	Lower Consecutive Offline Amount (LCOA) Limit [DPAS]	00 00 00 00 00 00
C9	Upper Consecutive Offline Amount Limit (UCOA) [DPAS]	00 00 00 00 00 00
CA	Single Transaction Amount (STA) Limit [DPAS]	00 00 00 00 00 00
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
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 00
D5	CVM-Cum limit 1	00 00 00 00 00 00
D6	CVM-Cum limit 2	00 00 00 00 00 00
D7	CVM-STA limit 1	00 00 00 00 00 00
D8	CVM-STA limit 2	00 00 00 00 00 00
D9	CVM-Counter	00
DA	CVM-Cons limit 1	00
DB	CVM-Cons limit 2	00
DE	Counter and Accumulator Control Options (CACO) [D-PAS]	C1 01 09 01 01 00
DF 11	PDOL Check Table - Profile (PDOLP) [DPAS]	01 09 41 00 00 41 A0 11 FF 01 01

Tag	Element name	Data v4.0
DF 21	Transaction Profile Objects(TPO1) [DPAS]	40 40 00 10 00 08 01 02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 FF 00 A0 8B 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
DF 30	CRM-CAC Switch Interface [D-PAS]	00 00 00
DF 31	CRM-CAC Denial [D-PAS]	00 00 00
DF 32	CRM-CAC Online [D-PAS]	C8 7E FF
DF 33	CRM-CAC Default [D-PAS]	98 3E EB
DF 34	CVM Card Action Codes - Online	40 80
DF 35	CVM Card Action Codes - Signature	00 80
DF 40	CL-Accumulator	00 00 00 00 00 00
DF 41	CL-Cum Limit	00 00 00 00 00 00
DF 42	CL-STA	00 00 00 00 00 00
DF 43	CL-Counter	00
DF 44	CL-Cons Limit	00

4.12.7 Contactless: Application Tag data, AID A0000001523010

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	44 49 53 43 4F 56 45 52 20 44 45 42 49 54 - 'DISCOVER DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 00 05 D2 21 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	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E 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 Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 01 52 30 10
87	Application Priority Indicator	02
94	Application File Locator (AFL)	08 01 02 00

Tag	Element name	Data v4.0
9F 07	Application Usage Control	**FF 00** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	**00 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 xx ***
9F 27	Cryptogram Information Data (CID)	**80**
9F 36	Application Transaction Counter (ATC)	**xx xx ***
9F 38	Processing Options Data Object List (PDOL)	**9F 66 04 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9A 03 9C 01 9F 37 04**
9F 4D	Transaction Log Entry	**0B 0A**
9F 4F	Transaction Log Format	**9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 1A 02 95 05 9C 01 8A 02 9F 37 04 9F 03 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02**
9F 6C	Card Transaction Qualifiers [DPAS]	**00 00**
9F 71	Card Processing Requirements [DPAS]	**00 8B**
9F 71	Card Processing Requirements [DPAS]	**00 8B**
9F 78	Application State [D-PAS]	**01**
BF 51	Contactless D-PAS MS and ZIP Default Profile	**82 02 00 00 94 04 08 01 01 00**
C0	Contactless Application Configuration Options (CL-ACO)	**03 88**
C2	Issuer Life Cycle Data (ILCD) [DPAS]	**00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00**
C3	Currency Conversion Codes 1 [DPAS]	**08 40 00 01 00**
C4	Currency Conversion Codes 2 [DPAS]	**08 40 00 01 00**
C8	Lower Consecutive Offline Amount (LCOA) Limit [DPAS]	**00 00 00 00 00 00**
C9	Upper Consecutive Offline Amount Limit (UCOA) [DPAS]	**00 00 00 00 00 00**
CA	Single Transaction Amount (STA) Limit [DPAS]	**00 00 00 00 00 00**
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**
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 00**
D5	CVM-Cum limit 1	**00 00 00 00 00 00**

Tag	Element name	Data v4.0
D6	CVM-Cum limit 2	00 00 00 00 00 00
D7	CVM-STA limit 1	00 00 00 00 00 00
D8	CVM-STA limit 2	00 00 00 00 00 00
D9	CVM-Counter	00
DA	CVM-Cons limit 1	00
DB	CVM-Cons limit 2	00
DE	Counter and Accumulator Control Options (CACO) [D-PAS]	C1 01 09 01 01 00
DF 11	PDOL Check Table - Profile (PDOLP) [DPAS]	01 09 41 00 00 41 A0 11 FF 01 01
DF 21	Transaction Profile Objects(TPO1) [DPAS]	40 40 00 10 00 08 01 02 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 FF 00 A0 8B 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
DF 30	CRM-CAC Switch Interface [D-PAS]	00 00 00
DF 31	CRM-CAC Denial [D-PAS]	00 00 00
DF 32	CRM-CAC Online [D-PAS]	C8 7E FF
DF 33	CRM-CAC Default [D-PAS]	98 3E EB
DF 34	CVM Card Action Codes - Online	40 80
DF 35	CVM Card Action Codes - Signature	00 80
DF 40	CL-Accumulator	00 00 00 00 00 00
DF 41	CL-Cum Limit	00 00 00 00 00 00
DF 42	CL-STA	00 00 00 00 00 00
DF 43	CL-Counter	00
DF 44	CL-Cons Limit	00

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

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

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

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

Cardholder Verification Method List ('4203 1F03 0000')			
CVM	**Verification Method**	**Conditions**	**If unsuccessful**
1	Online PIN	Terminal supports CVM type	Next CVM
2	No CVM required	Terminal supports CVM type	Fail
3	No CVM required	Always	Fail

4.13.2 Contact: Application Tag data, AID A0000001524010

* Tag value changes with card usage

Tag	Element name	Data v4.0
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	55 53 20 44 45 42 49 54 - 'US DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 00 05 D2 21 22 01 10 00 07 49 00 00 0F
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 00 05
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 31 33 20 20 20 20 - 'USA DEBIT/Test Card 13'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - US
82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 01 52 40 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 34 03
8D	Card Risk Management Data Object List 2 (CDOL2)	91 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 00 00 00 00
94	Application File Locator (AFL)	08 01 01 00 10 01 02 00 18 01 01 00

Tag	Element name	Data v4.0
9F 07	Application Usage Control	**AB 00** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 0D	Issuer Action Code - Default	**B0 68 C4 E8 00**
9F 0E	Issuer Action Code - Denial	**00 10 00 00 00**
9F 0F	Issuer Action Code - Online	**B0 68 C4 F8 00**
9F 10	Issuer Application Data [DPAS]	**xx 06 xx xx xx xx xx ***
9F 11	Issuer Code Table Index	**01**
9F 12	Application Preferred Name	**55 53 20 44 65 62 69 74** - 'US Debit'
9F 17	Personal Identification Number (PIN) Try Counter	**03**
9F 26	Application Cryptogram (AC)	**xx xx xx xx xx xx xx xx ***
9F 27	Cryptogram Information Data (CID)	**80**
9F 36	Application Transaction Counter (ATC)	**xx xx ***
9F 4D	Transaction Log Entry	**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 78	Application State [D-PAS]	**00**
C1	Application Configuration Options [DPAS]	**15 40**
C2	Issuer Life Cycle Data (ILCD) [DPAS]	**00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00**
C3	Currency Conversion Codes 1 [DPAS]	**08 40 00 01 00**
C4	Currency Conversion Codes 2 [DPAS]	**08 40 00 01 00**
C5	Card Action Code - Denial [DPAS]	**01 00**
C6	Card Action Code - Default [DPAS]	**2E 1F**
C7	Card Action Code - Online [DPAS]	**FE 1F**
D0	Issuer Application Data ObjectList (IADOL) [DPAS]	
D2	CRM Country Code [DPAS]	**08 40** - USA
D3	CRM Currency Code [DPAS]	**08 40** - USD
DF 11	PDOL Check Table - Profile (PDOLP) [DPAS]	**01 09 41 00 00 41 A0 00 0F 01 01**
DF 20	Transaction Profile Objects(TPO0) [DPAS]	**00 18 00 08 01 01 00 10 01 02 00 18 01 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 01 00 FE 1F 2E 1F 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00**

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

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

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

4.14.1 Contact: CVM List - DNA, AID A0000006200620

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

4.14.2 Contact: Application Tag data, AID A0000006200620

* Tag value changes with card usage

Tag	Element name	Data v4.0
50	Application Label	**44 4E 41** - 'DNA'
57	Track 2 Data [Discover]	**40 00 00 00 00 00 00 28 D2 21 22 01 56 78 00 00 00 35 1F**
5A	Application Primary Account Number (PAN)	**40 00 00 00 00 00 00 28**
5F 20	Cardholder Name	**55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 31 34 20 20 20 20** - 'USA DEBIT/Test Card 14'
5F 24	Application Expiration Date	**22 12 31**
5F 25	Application Effective Date	**xx xx xx ***
5F 28	Issuer Country Code	**08 40** - USA
5F 2D	Language Preference	**65 6E** - 'en' (English)
5F 30	Service Code	**02 01**
5F 34	Application PAN Sequence Number	**01**
82	Application Interchange Profile	**18 00** BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 06 20 06 20**
87	Application Priority Indicator	**01**
8C	Card Risk Management Data Object List 1 (CDOL1)	**9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 34 03**
8D	Card Risk Management Data Object List 2 (CDOL2)	**91 0A 8A 02 95 05 9F 37 04**
8E	Cardholder Verification Method (CVM) List	**00 00 00 00 00 00 00 00 02 01 02 04 02 03 1F 03**

Tag	Element name	Data v4.0
94	Application File Locator (AFL)	08 01 01 00 18 01 02 01
9F 07	Application Usage Control	FF 00 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid 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 xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	44 65 62 69 74 - 'Debit'
9F 17	Personal Identification Number (PIN) Try Counter	03
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 4D	Transaction Log Entry	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 78	Application State [D-PAS]	00
C1	Application Configuration Options [DPAS]	15 60
C2	Issuer Life Cycle Data (ILCD) [DPAS]	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
C3	Currency Conversion Codes 1 [DPAS]	08 40 00 00 02
C4	Currency Conversion Codes 2 [DPAS]	08 40 00 00 02
D0	Issuer Application Data ObjectList (IADOL) [DPAS]	
D2	CRM Country Code [DPAS]	08 40 - USA
D3	CRM Currency Code [DPAS]	08 40 - USD
DF 20	Transaction Profile Objects(TPO0) [DPAS]	00 18 00 08 01 01 00 18 01 02 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 01 00 F6 1F 22 0B 00 00 00 00 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'.

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

4.15.1 Contact: CVM List - Interac, AID A0000002771010

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

4.15.2 Contact: Application Tag data, AID A0000002771010

* Tag value changes with card usage

Tag	Element name	Data v4.0
50	Application Label	**49 6E 74 65 72 61 63** - 'Interac'
57	Track 2 Equivalent Data	**19 67 30 28 39 01 86 44 D2 21 22 20 08 97 74 00 00 00 1F**
5A	Application Primary Account Number (PAN)	**19 67 30 28 39 01 86 44**
5F 20	Cardholder Name	**55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 31 35 20 20 20 20** - 'USA DEBIT/Test Card 15'
5F 24	Application Expiration Date	**22 12 31**
5F 25	Application Effective Date	**xx xx xx ***
5F 28	Issuer Country Code	**01 24** - CAN
5F 2D	Language Preference	**65 6E 66 72** - 'enfr' (English, French)
5F 30	Service Code	**02 20**
5F 34	Application PAN Sequence Number	**01**
5F 56	Issuer Country Code (alpha3 format)	**43 41 4E**
82	Application Interchange Profile	**18 00** BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 02 77 10 10**
87	Application Priority Indicator	**01**
8C	Card Risk Management Data Object List 1 (CDOL1)	**9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 45 02 9F 4C 08 9F 34 03**
8D	Card Risk Management Data Object List 2 (CDOL2)	**91 0A 8A 02 95 05 9F 37 04 9F 4C 08**
8E	Cardholder Verification Method (CVM) List	**00 00 00 00 00 00 00 00 01 03 02 03**
94	Application File Locator (AFL)	**08 01 02 00 10 01 01 00**

Tag	Element name	Data v4.0
9F 07	Application Usage Control	FF 00 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	FC E8 FC 98 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC E8 FC 98 00
9F 10	Issuer Application Data [InteracFlash]	xx xx 85 xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx *
9F 13	Last Online Application Transaction Counter (ATC) Register	00 00
9F 17	Personal Identification Number (PIN) Try Counter	09
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List (PDOL)	9F 02 06 9F 1A 02 5F 2A 02 9F 37 04
9F 42	Application Currency Code	01 24 - CAD
9F 44	Application Currency Exponent	02
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 8A 02
9F 62	Card Product Code [InteracFlash]	00 01
9F 70	Form Factor Indicator [InteracFlash]	00
DF 62	Application Selection Flag [Canada]	80 80

4.15.3 Contactless: CVM List - Interac Flash, AID A0000002771010

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

4.15.4 Contactless: Application Tag data, AID A0000002771010

* Tag value changes with card usage

Tag	Element name	Data v4.0
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'
57	Track 2 Equivalent Data	19 67 30 28 39 01 86 44 D2 21 22 20 08 97 74 00 00 00 1F
5A	Application Primary Account Number (PAN)	19 67 30 28 39 01 86 44
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 31 35 20 20 20 20 - 'USA DEBIT/Test Card 15'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	01 24 - CAN

Tag	Element name	Data v4.0
5F 2D	Language Preference	**65 6E 66 72** - 'enfr' (English, French)
5F 30	Service Code	**02 20**
5F 34	Application PAN Sequence Number	**01**
82	Application Interchange Profile	**18 00** BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	**A0 00 00 02 77 10 10**
87	Application Priority Indicator	**01**
8C	Card Risk Management Data Object List 1 (CDOL1)	**9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 45 02 9F 4C 08 9F 34 03**
8D	Card Risk Management Data Object List 2 (CDOL2)	**91 0A 8A 02 95 05 9F 37 04 9F 4C 08**
8E	Cardholder Verification Method (CVM) List	**00 00 00 00 00 00 00 00 02 03 1F 03**
94	Application File Locator (AFL)	**08 01 03 00**
9F 07	Application Usage Control	**FF 00** BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	**00 02**
9F 0D	Issuer Action Code - Default	**FC E8 FC 98 00**
9F 0E	Issuer Action Code - Denial	**00 00 00 00 00**
9F 0F	Issuer Action Code - Online	**FC E8 FC 98 00**
9F 10	Issuer Application Data [InteracFlash]	**xx xx 85 xx xx xx

Tag	Element name	Data v4.0
9F 63	Card Transaction Information [InteracFlash]	xx xx xx xx *
9F 70	Form Factor Indicator [InteracFlash]	00

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

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

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

4.16.1 Contact: CVM List - Interac, AID A0000002771010

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

4.16.2 Contact: Application Tag data, AID A0000002771010

* Tag value changes with card usage

Tag	Element name	Data v4.0
50	Application Label	49 4E 54 45 52 41 43 - 'INTERAC'
57	Track 2 Equivalent Data	45 06 44 50 06 93 19 33 D2 21 22 20 01 62 90 74 00 00 0F
5A	Application Primary Account Number (PAN)	45 06 44 50 06 93 19 33
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 31 36 20 20 20 20 - 'USA DEBIT/Test Card 16'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	01 24 - CAN
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile	1C 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04

Tag	Element name	Data v4.0
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 41 03 02 03
8F	Certification Authority Public Key Index	55
90	Issuer Public Key Certificate	6C 16 73 99 B8 BE 0C CA 2A A9 EF 30 EC F5 14 C4 F4 F1 F0 89 85 8A 46 08 6F 12 F2 80 B6 81 FD CA 40 8C 09 51 C0 D6 BA 64 FD 05 C7 2C 5A 23 B2 66 DA 11 D6 75 BA B2 AC 74 C5 AF E0 41 A6 94 2D 84 FC 19 0D C0 6D 83 CF 17 71 F2 F9 74 B8 31 73 5A A1 30 39 4D 12 DC CF D5 74 61 D1 20 E5 58 F6 35 12 F6 DB 82 46 DD 41 00 9F A1 D9 73 1B 27 42 F9 7E FD 2B C1 16 DF B9 AF 7A 96 6A CF 12 83 A8 49 A7 A9 73 6A 0D 8A E2 63 98 36 BC A6 9B D9 EE 78
92	Issuer Public Key Remainder	EC A4 19 2A 02 CA AC 0B 75 22 44 EC AE 9F 1A BA 46 15 E7 05 27 AD D0 D8 03 67 54 CA 9F A5 2E 7D 42 16 22 0F
93	Signed Static Application Data	8E 85 10 B3 4A D5 75 23 55 88 FA 87 FA 27 F7 47 AC 0C F3 0E 61 71 55 83 E6 DD D8 53 13 A1 99 C7 A6 77 7A 02 BE CF 20 18 14 99 AB 7A 9A 2E A3 09 F0 B0 94 0C 03 34 0B AB 91 CC 6E 46 52 44 93 D4 CD 22 0B 62 36 27 64 7D 23 03 B0 03 8A C5 E5 5B 80 D1 B4 EC 01 68 4F 43 AB EC A9 03 77 48 6C 26 CE 1D 5E 83 73 90 1C E1 6C 5F 9C 70 C5 44 53 67 94 3F 8F 03 91 0E 67 C9 D4 3E F7 92 D8 35 D2 D2 42 D4 DA 6F C7 6B E1 71 52 05 75 1B 79 F4 51 33
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 10 06 06 00 B0 01 01 00
9F 07	Application Usage Control	FF 00 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	00 01
9F 0D	Issuer Action Code - Default	B0 70 BC 80 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	49 6E 74 65 72 61 63 - 'Interac'
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *
9F 17	Personal Identification Number (PIN) Try Counter	09
9F 1F	Track 1 Discretionary Data	31 36 32 39 30 37 34 30 30 30 30 31 30 30 30 30 30 30 30 30 30 30 30 30
9F 32	Issuer Public Key Exponent	03
9F 36	Application Transaction Counter (ATC)	xx xx *

Tag	Element name	Data v4.0
9F 38	Processing Options Data Object List (PDOL)	9F 02 06 9F 1A 02
9F 44	Application Currency Exponent	02
9F 46	ICC Public Key Certificate	31 AE EC E5 72 75 2D 6E E7 D7 BA E1 5A B0 59 7D 71 EE 6D C0 EB 1A F2 54 C1 FC 53 00 B3 4F 7F A6 1C 32 B2 1B 54 1D E4 9F 84 D4 8F B8 9A BF 91 57 FE 51 E9 F1 3D 82 EC 26 5D D6 5E 6C 4D B8 A5 CF 71 C8 3F 36 07 48 91 A2 86 76 0A F7 51 8A ED 89 83 33 A4 5E A3 08 D6 25 DD 65 0C 45 52 69 FC 1C 20 B6 AE 5E 4C 26 A9 4F A9 37 5F 8D 2A FD B0 4C 23 C1 0F 1C FC 42 A5 E4 F2 9A 1C DA 94 67 F3 38 F0 E1 0C 48 47 46 BD BB 57 2B 21 4C 11 25 26 D3
9F 47	ICC Public Key Exponent	03
9F 48	ICC Public Key Remainder	C7 FC 17 8E 7A 76 F6 F4 17 BC 8F E6 E9 9F 89 15 DE 93 B5 E5 ED 38 EF EC 5F 69
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04
9F 4A	Static Data Authentication Tag List	82
9F 51	Lower Cumulative Offline Limit [InteracFlash]	01 24
9F 52	Merchant Type Indicator Limits 01 [InteracFlash]	C0 38 00 00 00 00
9F 54	Merchant Type Indicator Limits 02 [InteracFlash]	00 00 00 00 00 00
9F 56	Merchant Type Indicator Limits 04 [InteracFlash]	80
9F 57	Merchant Type Indicator Limits 05 [InteracFlash]	01 24
9F 5C	Upper Cumulative Offline Limit [InteracFlash]	00 00 00 00 00 00
9F 68	Contact CIAC Default [InteracFlash]	10 00 10 00
9F 6D	Contactless CIAC Online [InteracFlash]	00 00 00 00 00 00

Chapter 5 - ASCII Character Conversion Chart

Dec	Bin	Hex	Char	Dec	Bin	Hex	Char	Dec	Bin	Hex	Char
00	00000000	00	NUL	44	00101100	2C	,	88	01011000	58	X
01	00000001	01	SOH	45	00101101	2D	-	89	01011001	59	Y
02	00000010	02	STX	46	00101110	2E	.	90	01011010	5A	Z
03	00000011	03	ETX	47	00101111	2F	/	91	01011011	5B	[
04	00000100	04	EOT	48	00110000	30	0	92	01011100	5C	\
05	00000101	05	ENQ	49	00110001	31	1	93	01011101	5D	]
06	00000110	06	ACK	50	00110010	32	2	94	01011110	5E	^
07	00000111	07	BEL	51	00110011	33	3	95	01011111	5F	_
08	00001000	08	BS	52	00110100	34	4	96	01100000	60	`
09	00001001	09	HT	53	00110101	35	5	97	01100001	61	a
10	00001010	0A	LF	54	00110110	36	6	98	01100010	62	b
11	00001011	0B	VT	55	00110111	37	7	99	01100011	63	c
12	00001100	0C	FF	56	00111000	38	8	100	01100100	64	d
13	00001101	0D	CR	57	00111001	39	9	101	01100101	65	e
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	A	109	01101101	6D	m
22	00010110	16	SYM	66	01000010	42	B	110	01101110	6E	n
23	00010111	17	ETB	67	01000011	43	C	111	01101111	6F	o
24	00011000	18	CAN	68	01000100	44	D	112	01110000	70	p
25	00011001	19	EM	69	01000101	45	E	113	01110001	71	q
26	00011010	1A	SUB	70	01000110	46	F	114	01110010	72	r
27	00011011	1B	ESC	71	01000111	47	G	115	01110011	73	s
28	00011100	1C	FS	72	01001000	48	H	116	01110100	74	t
29	00011101	1D	GS	73	01001001	49	I	117	01110101	75	u
30	00011110	1E	RS	74	01001010	4A	J	118	01110110	76	v
31	00011111	1F	US	75	01001011	4B	K	119	01110111	77	w
32	00100000	20	SP	76	01001100	4C	L	120	01111000	78	x
33	00100001	21	!	77	01001101	4D	M	121	01111001	79	y
34	00100010	22	"	78	01001110	4E	N	122	01111010	7A	z
35	00100011	23	#	79	01001111	4F	O	123	01111011	7B	{
36	00100100	24	$	80	01010000	50	P	124	01111100	7C	|
37	00100101	25	%	81	01010001	51	Q	125	01111101	7D	}
38	00100110	26	&	82	01010010	52	R	126	01111110	7E	~
39	00100111	27	'	83	01010011	53	S	127	01111111	7F	DEL
40	00101000	28	(	84	01010100	54	T				
41	00101001	29	)	85	01010101	55	U				
42	00101010	2A	*	86	01010110	56	V				
43	00101011	2B	+	87	01010111	57	W				