

USA Debit EMV™ Test Plan

Version 2.00

August 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.C08-T03 CD.MCCL.C09-T01 Card version numbers (profile table, Tag data) updated to match physical card version - all are currently v4.0. Tags 82, 9F07, 9F69: interpretation of bit values added | |
| 2.00 | August 20, 2018 | TC03 updated to v5.0 - Tag 57 modified | |



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| 4.16 | | ard 16 - Interac, CO, 1-AID (Interac), English, CAN, CAD | |
| 4.16 | 4.16.1 | , | 296 |



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 <u>not</u> assume that if a U.S. Common Debit AID is present, that this AID can be automatically selected to the exclusion of all other AIDs on the card, as those AIDs may relate to alternative products which the cardholder may wish to use (e.g. a credit product which is issued together with a debit product).

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

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

There are three possible situations that must be handled:

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



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

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

U.S. Common Debit Scenarios

| U.S. Commo | n Debit Scenarios | | | | |
|-----------------------------|---|-----|---|--|--|
| Scenario One | AID Care | | IIN Tag 42 Ile debit funding Test Cards 01, 0 | | |
| Global Debit AID | TC 01 - A000000031010 TC 05 - A000000041010 TC 12 - A0000000153010 | US | TC 01 - 476173 TC 05 - 541333 TC 12 - 651000 | Merchant may decide which AID to select based on their preferred routing choice: Global AID – may only be routed to Visa, Mastercard or Discover (any | |
| U.S. Common Debit AID | TC 01 - A000000980840 TC 05 - A000000042203 TC 12 - A0000000154010 | US | TC 01 - 476173 TC 05 - 541333 TC 12 - 651000 | supported CVM may be used) U.S. Common Debit AID — may be routed to any of the global networks or any of the supported debit networks (any supported CVM may be used) | |
| Two | Combo card accessing a credit account and a single funding debit account: 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

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

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:

- 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:

- 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 "AII CVM Configuration", "Signature and NO CVM Configuration" or the "NO CVM Only Configuration"):

Global Debit AID:

- Transaction is over the NO CVM limit:
- PIN Preferring Merchant Select the "All CVM Configuration"
- Credit/Debit Prompting Merchant Select the "Signature and NO CVM Configuration"
- Transaction is under the NO CVM limit (for both PIN Preferring and Credit/Debit)
 Select the "NO CVM Only Configuration"

U.S. Common Debit AID:

- Transaction is over the NO CVM limit (for both PIN Preferring and Credit/Debit) -Select the "All CVM Configuration"
- Transaction is under the NO CVM limit (for both PIN Preferring and Credit/Debit)
 Select the "NO CVM Only Configuration"

Set the Processing Code:

- International/Global AID selected a credit Processing Code should be used
- U.S. Common Debit AID, Interlink, Maestro or Interac selected a debit Processing Code should be used

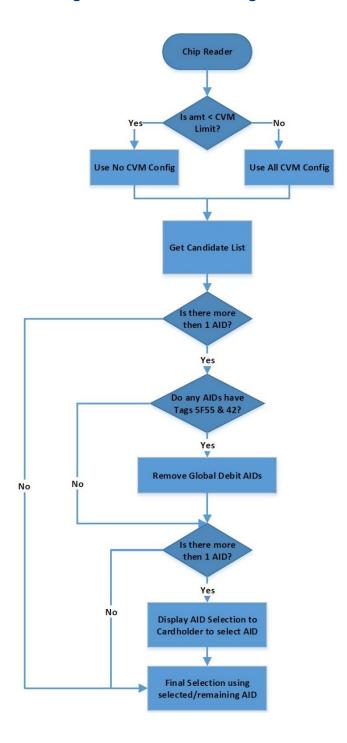
The kernel can now select the AID on the chip and Final Selection ends.

In some implementations it may not be feasible to perform cardholder Application Selection. For these cases, an EMV transaction should not be performed if the chip card contains multiple applications, unless there is a method to inform the cardholder which application is being used.

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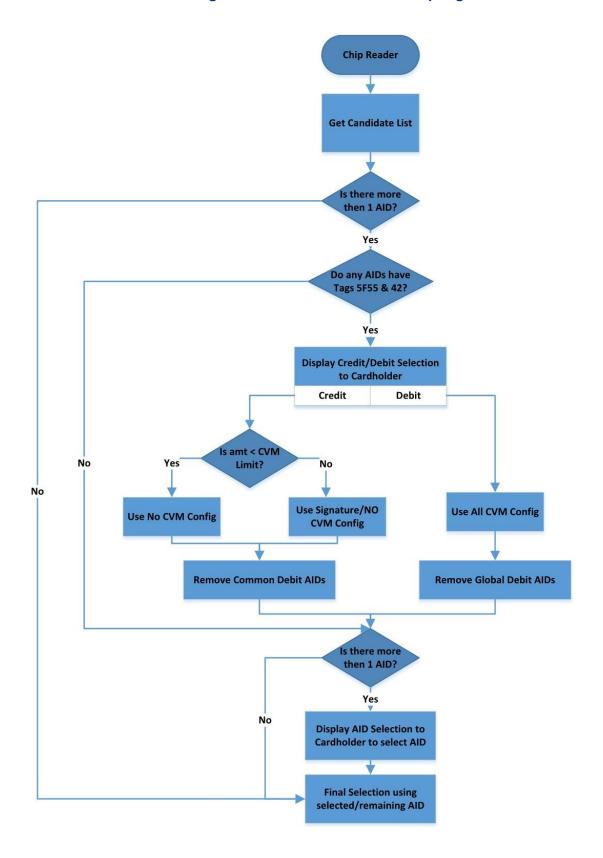


2.6 U.S. Debit Processing Flowchart PIN Preferring Merchants





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

Cxx is:

The Card Number (01-16)

Tyy is:

The Test Number (resets to "01" for each card)

e.g.

PP.MCCL.C01-T01 – uses 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:

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

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



3.3.4 Pre-Requisites

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A0000000980840

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

3.3.5 Steps

Steps:

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

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

3.3.6 Pass Criteria

Pass Criteria:

- 1. "Chip" indicates the card was inserted
- 2. "A0000000980840" AID selected was 'US Debit'

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

3.3.7 Comments

Comments:

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

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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 |
|------|-------------------|---------------------|---------------------|---------------------|
| | A000000031010 | A000000980840 | | |
| 04 | Debit | Debit | | |
| 01 | Visa Debit | US Debit | | |
| | 4761739001010135 | 4761739001010135 | | |
| | A000000980840 | | | |
| 00 | Debit | | | |
| 02 | US Debit | | | |
| | 4761739001010135 | | | |
| | A00000003101001 | A00000003101002 | A000000980840 | |
| 03 | Credit | Debit | Debit | |
| 03 | Visa Credit | Visa Debit | US Debit | |
| | 4761739001010176 | 4761739001010135 | 4761739001010135 | |
| | A000000033010 | | | |
| 04 | Debit | | | |
| 04 | Interlink | | | |
| | 4761739001010671 | | | |
| | A0000000041010 | A0000000042203 | | |
| 0.5 | Debit | Debit | | |
| 05 | Mastercard Debit | US Maestro | | |
| | 5413330089099130 | 5413330089099130 | | |
| | A0000000043060 | A000000043060 | | |
| | D0561111 | D0562222 | | |
| 06 | Debit | Debit | | |
| | Maestro1 | Maestro2 | | |
| | 67999989000002010 | 67999989000002028 | | |
| | A0000000041010 | A000000043060 | | |
| 07 | Credit | Debit | | |
| 07 | Mastercard | Maestro | | |
| | 5413330089020060 | 6799998900000200051 | | |
| | A0000000042203 | A0000000042203 | | |
| | D0561111 | D0562222 | | |
| 80 | Debit | Debit | | |
| | US Checking | US Savings | | |
| | 5413330089099007 | 5413330089099015 | | |
| | A0000000041010 | A0000000043060 | A0000000042203 | |
| 09 | Credit | Debit | Debit | |
| 09 | Mastercard | Maestro | US Maestro | |
| | 5413330089020060 | 6799998900000200051 | 6799998900000200051 | |
| | A0000000042203 | | | |
| 10 | Debit | | | |
| 10 | US Maestro | | | |
| | 5413330089099130 | | | |
| | A0000000041010 | A000000004220301 | A000000043060 | A000000004220302 |
| 11 | Debit | Debit | Debit | Debit |
| ' ' | 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 | | |
| 12 | US Debit | Discover Debit | | |
| | 6011973700000005 | 6011973700000005 | | |
| | A0000001524010 | | | |
| 13 | Debit | | | |
| 13 | US Debit | | | |
| | 6011973700000005 | | | |
| | A0000006200620 | | | |
| 14 | Debit | | | |
| 14 | DNA | | | |
| | 4000000000000028 | | | |
| | A0000002771010 | | | |
| 15 | Debit | | | |
| 15 | Interac | | | |
| | 1967302839018644 | | | |
| _ | A0000002771010 | | | |
| 16 | Debit | | | |
| 16 | Interac | | | |
| | 4506445006931933 | | | |



3.3.9 PIN Preferring, Merchant Controlled Candidate List – Test Cases

3.3.9.1 PP.MCCL.C01-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



3.3.9.2 PP.MCCL.C01-T02

PP.MCCL.C01-T02 PIN Preferring, Merchant Controlled Candidate List Card 01 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A0000000980840
- 4. PIN Bypass is supported

Steps:

- Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 01
- 3. When prompted for PIN, press Enter/Cancel to bypass PIN entry

Pass Criteria:

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



3.3.9.3 PP.MCCL.C01-T03

PP.MCCL.C01-T03 PIN Preferring, Merchant Controlled Candidate List Card 01 - Test 03

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A0000000980840
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

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



3.3.9.4 PP.MCCL.C01-T04

PP.MCCL.C01-T04 PIN Preferring, Merchant Controlled Candidate List Card 01 - Test 04

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A0000000980840
- 4. Contactless CVM Floor limit is above \$10

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- User is <u>not</u> prompted to enter a PIN
- 4. The 'US Debit' application is automatically selected
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A000000980840" AID selected was 'US Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "No signature required" No CVM was used



3.3.9.5 PP.MCCL.C02-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



3.3.9.6 PP.MCCL.C02-T02

PP.MCCL.C02-T02 PIN Preferring, Merchant Controlled Candidate List Card 02 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000980840
- 4. PIN Bypass is supported

Steps:

- 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:

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



3.3.9.7 PP.MCCL.C03-T01

PP.MCCL.C03-T01 PIN Preferring, Merchant Controlled Candidate List Card 03 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



3.3.9.8 PP.MCCL.C03-T02

PP.MCCL.C03-T02 PIN Preferring, Merchant Controlled Candidate List Card 03 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Visa Credit' and 'US Debit' only
- User is able to select 'US Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000980840" AID selected was 'US Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.9.9 PP.MCCL.C03-T03

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A0000000980840
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

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



3.3.9.10 PP.MCCL.C04-T01

PP.MCCL.C04-T01 PIN Preferring, Merchant Controlled Candidate List Card 04 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: 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 <u>not</u> prompted to select an application
- The Interlink application is automatically selected
- 7. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000033010" AID selected was 'Interlink'
 - c. "0671" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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3.3.9.11 PP.MCCL.C05-T01

PP.MCCL.C05-T01 PIN Preferring, Merchant Controlled Candidate List Card 05 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

- Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.9.12 PP.MCCL.C05-T02

PP.MCCL.C05-T02 PIN Preferring, Merchant Controlled Candidate List Card 05 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

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



3.3.9.13 PP.MCCL.C05-T03

PP.MCCL.C05-T03 PIN Preferring, Merchant Controlled Candidate List Card 05 - Test 03

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

- User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.9.14 PP.MCCL.C05-T04

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

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

Steps:

- 1. Start a Purchase transaction for \$20.00
- 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
- The transaction is approved
- Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "No signature required" No CVM was used



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'
- User is able to select 'Maestro1'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060D0561111" AID selected was 'Maestro1'
 - c. "2010" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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3.3.9.16 PP.MCCL.C06-T02

PP.MCCL.C06-T02 PIN Preferring, Merchant Controlled Candidate List Card 06 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000043060

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- 3. User is able to select 'Maestro2'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060D0562222" AID selected was 'Maestro2'
 - c. "2028" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.9.17 PP.MCCL.C07-T01

PP.MCCL.C07-T01 PIN Preferring, Merchant Controlled Candidate List Card 07 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard'
 - c. "0060" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.9.18 PP.MCCL.C07-T02

PP.MCCL.C07-T02 PIN Preferring, Merchant Controlled Candidate List Card 07 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- User is able to select 'Mastercard'
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard'
 - c. "0060" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.9.19 PP.MCCL.C07-T03

PP.MCCL.C07-T03 PIN Preferring, Merchant Controlled Candidate List Card 07 - Test 03

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, 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'
- User is able to select 'Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060" AID selected was Maestro
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.9.20 PP.MCCL.C08-T01

PP.MCCL.C08-T01 PIN Preferring, Merchant Controlled Candidate List Card 08 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

- User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000042203D0561111" AID selected was 'US Checking'
 - c. "9007" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.9.21 PP.MCCL.C08-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000042203D0561111" AID selected was 'US Checking'
 - c. "9007" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.9.22 PP.MCCL.C08-T03

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000042203D0562222" AID selected was 'US Savings'
 - c. "9015" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.9.23 PP.MCCL.C08-T04

PP.MCCL.C08-T04 PIN Preferring, Merchant Controlled Candidate List Card 08 - Test 04

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- User is able to select 'US Savings'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000042203D0562222" AID selected was 'US Savings'
 - c. "9015" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.9.24 PP.MCCL.C09-T01

PP.MCCL.C09-T01 PIN Preferring, Merchant Controlled Candidate List Card 09 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'US Maestro' only
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard'
 - c. "0060" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.9.25 PP.MCCL.C09-T02

PP.MCCL.C09-T02 PIN Preferring, Merchant Controlled Candidate List Card 09 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'US Maestro' only
- 3. User is able to select 'Mastercard'
- 4. When PIN is not entered the transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard'
 - c. "0060" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.9.26 PP.MCCL.C09-T03

PP.MCCL.C09-T03 PIN Preferring, Merchant Controlled Candidate List Card 09 - Test 03

Type: Contact

Purpose:

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

- 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. "A000000042203" AID selected was 'US Maestro'
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.9.27 PP.MCCL.C09-T04

PP.MCCL.C09-T04 PIN Preferring, Merchant Controlled Candidate List Card 09 - Test 04

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



3.3.9.28 PP.MCCL.C10-T01

PP.MCCL.C10-T01 PIN Preferring, Merchant Controlled Candidate List Card 10 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.9.29 PP.MCCL.C10-T02

PP.MCCL.C10-T02 PIN Preferring, Merchant Controlled Candidate List Card 10 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 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:

- Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 10
- 3. When prompted for PIN, press Enter/Cancel to bypass PIN entry

Pass Criteria:

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



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 A000000042203

Steps:

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

Pass Criteria:

- User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A00000004220301" AID selected was 'US Checking'
 - c. "0060" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.9.31 PP.MCCL.C11-T02

PP.MCCL.C11-T02 PIN Preferring, Merchant Controlled Candidate List Card 11 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A00000004220301" AID selected was 'US Checking'
 - c. "0060" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.9.32 PP.MCCL.C11-T03

PP.MCCL.C11-T03 PIN Preferring, Merchant Controlled Candidate List Card 11 - Test 03

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A000000042203

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A00000004220302" AID selected was 'US Savings'
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



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 A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- User is able to select 'US Savings'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A00000004220302" AID selected was 'US Savings'
 - c. "0051" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.9.34 PP.MCCL.C12-T01

PP.MCCL.C12-T01 PIN Preferring, Merchant Controlled Candidate List Card 12 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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



3.3.9.35 PP.MCCL.C12-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



3.3.9.36 PP.MCCL.C12-T03

PP.MCCL.C12-T03 PIN Preferring, Merchant Controlled Candidate List Card 12 - Test 03

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 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:

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



3.3.9.37 PP.MCCL.C12-T04

PP.MCCL.C12-T04 PIN Preferring, Merchant Controlled Candidate List Card 12 - Test 04

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as 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
- 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
- Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A0000001524010" AID selected was 'US Debit'
 - c. "0005" last 4 digits of the PAN
 - d. "No signature required" No CVM was used



3.3.9.38 PP.MCCL.C13-T01

PP.MCCL.C13-T01 PIN Preferring, Merchant Controlled Candidate List Card 13 - Test 01

Type: Contact

Purpose:

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

- 1. Does not prompt for Credit or Debit
- 2. Does 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:

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



3.3.9.39 PP.MCCL.C13-T02

PP.MCCL.C13-T02 PIN Preferring, Merchant Controlled Candidate List Card 13 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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



3.3.9.41 PP.MCCL.C15-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

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

Pre-Requisites:

- Application is configured as PIN Preferring
- 2. Application Selection is 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:

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

Comments:

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



3.3.10 PIN Preferring, Standard EMV Application Selection – Test Cases

3.3.10.1 PP.SEAS.C01-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Visa Debit' and 'US Debit'
- User is able to select 'Visa Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000031010" AID selected was 'Visa Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



3.3.10.2 PP.SEAS.C01-T02

PP.SEAS.C01-T02 PIN Preferring, Standard EMV Application Selection Card 01 - Test 02

Type: Contact

Purpose:

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

- 1. Does not prompt for Credit or Debit
- 2. Prompts the user for Application Selection by displaying 'Visa Debit' and 'US Debit'
- 3. Allows the user to select the 'US Debit' application
- 4. Prompts the user to enter a PIN

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



3.3.10.3 PP.SEAS.C01-T03

PP.SEAS.C01-T03 PIN Preferring, Standard EMV Application Selection Card 01 - Test 03

Type: Contact

Purpose:

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

- 1. Does not prompt for Credit or Debit
- 2. Prompts the user for Application Selection by displaying 'Visa Debit' and 'US Debit'
- 3. Allows the user to select the 'US Debit' application
- 4. Allows the user to bypass PIN entry

Pre-Requisites:

- Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A0000000980840
- 4. PIN Bypass is supported

Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 01
- 3. Select 'US Debit' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Visa Debit' and 'US Debit'
- User is able to select 'US Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000980840" AID selected was 'US Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.10.4 PP.SEAS.C01-T04

PP.SEAS.C01-T04 PIN Preferring, Standard EMV Application Selection Card 01 - Test 04

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A0000000980840
- Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

- User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A000000031010" AID selected was 'Visa Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "Signature panel" Signature CVM was used



3.3.10.5 PP.SEAS.C01-T05

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A0000000980840
- 4. Contactless CVM Floor limit is above \$10

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A000000031010" AID selected was 'Visa Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "No Signature Required" No CVM was used



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: A000000980840

Steps:

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

Pass Criteria:

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



3.3.10.7 PP.SEAS.C02-T02

PP.SEAS.C02-T02 PIN Preferring, Standard EMV Application Selection Card 02 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000980840
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

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



3.3.10.8 PP.SEAS.C03-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

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



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
- Terminal supports the following AIDs: A000000031010, A000000980840

Steps:

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

Pass Criteria:

- User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. User is able to select 'Visa Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A00000003101002" AID selected was 'Visa Debit'
 - c. '0135' last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



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
- Terminal supports the following AIDs: A000000031010, A0000000980840

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000980840" AID selected was 'US Debit'
 - c. '0135 last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.10.11 PP.SEAS.C03-T04

PP.SEAS.C03-T04 PIN Preferring, Standard EMV Application Selection Card 03 - Test 04

Type: Contact

Purpose:

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

- 1. Prompts the user for Application Selection by displaying all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 2. Allows the user to select the 'US Debit' application
- 3. Allows the user to bypass PIN entry

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000031010, 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. "A000000980840" AID selected was 'US Debit'
 - c. '0135' last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.10.12 PP.SEAS.C04-T01

PP.SEAS.C04-T01 PIN Preferring, Standard EMV Application Selection Card 04 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

- User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Interlink' application is automatically selected
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000033010" AID selected was 'Interlink'
 - c. "0671" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.10.13 PP.SEAS.C05-T01

PP.SEAS.C05-T01 PIN Preferring, Standard EMV Application Selection Card 05 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard and 'US Maestro'
- 3. User is able to select 'Mastercard Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard Debit'
 - c. "9130" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



3.3.10.14 PP.SEAS.C05-T02

PP.SEAS.C05-T02 PIN Preferring, Standard EMV Application Selection Card 05 - Test 02

Type: Contact

Purpose:

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

- 1. Does not prompt for Credit or Debit
- 2. Prompts the user for Application Selection by displaying 'Mastercard Debit' and 'US Maestro'
- 3. Allows the user to select the 'US Maestro' application
- 4. Prompts the user to enter a PIN

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, 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'
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.10.15 PP.SEAS.C05-T03

PP.SEAS.C05-T03 PIN Preferring, Standard EMV Application Selection Card 05 - Test 03

Type: Contact

Purpose:

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

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Prompts the user for Application Selection by displaying 'Mastercard Debit' and 'US Maestro'
- 3. Allows the user to select the 'US Maestro' application
- 4. Allows the user to bypass PIN entry

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203
- 4. PIN Bypass is supported

Steps:

- 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
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.10.16 PP.SEAS.C05-T04

PP.SEAS.C05-T04 PIN Preferring, Standard EMV Application Selection Card 05 - Test 04

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Mastercard Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A000000041010" AID selected was 'Mastercard Debit'
 - c. "9130" last 4 digits of the PAN
 - d. "Signature Panel" Signature CVM was used



3.3.10.17 PP.SEAS.C05-T05

PP.SEAS.C05-T05 PIN Preferring, Standard EMV Application Selection Card 05 - Test 05

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203
- 4. Contactless CVM Floor limit is above \$20

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Mastercard Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A000000041010" AID selected was 'Mastercard Debit'
 - c. "9130" last 4 digits of the PAN
 - d. "No Signature Required" No CVM was used



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
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060D0561111" AID selected was 'Maestro1'
 - c. "2010" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.10.19 PP.SEAS.C06-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000043060

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- 3. User is able to select 'Maestro2'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060D0562222" AID selected was 'Maestro2'
 - c. "2028" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.10.20 PP.SEAS.C07-T01

PP.SEAS.C07-T01 PIN Preferring, Standard EMV Application Selection Card 07 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard'
 - c. "0060" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.10.21 PP.SEAS.C07-T02

PP.SEAS.C07-T02 PIN Preferring, Standard EMV Application Selection Card 07 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 3. User is able to select 'Mastercard'
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard'
 - c. "0060" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.10.22 PP.SEAS.C07-T03

PP.SEAS.C07-T03 PIN Preferring, Standard EMV Application Selection Card 07 - Test 03

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, 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. "A000000043060" AID selected was Maestro
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.10.23 PP.SEAS.C08-T01

PP.SEAS.C08-T01 PIN Preferring, Standard EMV Application Selection Card 08 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000042203D0561111" AID selected was 'US Checking'
 - c. "9007" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.10.24 PP.SEAS.C08-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000042203D0561111" AID selected was 'US Checking'
 - c. "9007" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.10.25 PP.SEAS.C08-T03

PP.SEAS.C08-T03 PIN Preferring, Standard EMV Application Selection Card 08 - Test 03

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000042203D0562222" AID selected was 'US Savings'
 - c. "9015" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.10.26 PP.SEAS.C08-T04

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Savings'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000042203D0562222" AID selected was 'US Savings'
 - c. "9015" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.10.27 PP.SEAS.C09-T01

PP.SEAS.C09-T01 PIN Preferring, Standard EMV Application Selection Card 09 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard'
 - c. "0060" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



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

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- User is able to select 'Mastercard'
- 4. When PIN is <u>not</u> entered the transaction continues with No CVM or Signature
- The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard'
 - c. "0060" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.10.29 PP.SEAS.C09-T03

PP.SEAS.C09-T03 PIN Preferring, Standard EMV Application Selection Card 09 - Test 03

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- User is able to select 'Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060" AID selected was 'Maestro'
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.10.30 PP.SEAS.C09-T04

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- User is able to select 'US Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



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

Steps:

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

Pass Criteria:

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



3.3.10.32 PP.SEAS.C10-T01

PP.SEAS.C10-T01 PIN Preferring, Standard EMV Application Selection Card 10 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.10.33 PP.SEAS.C10-T02

PP.SEAS.C10-T02 PIN Preferring, Standard EMV Application Selection Card 10 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000042203
- 4. PIN Bypass is supported

Steps:

- Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 10
- 3. When prompted for PIN, press Enter/Cancel to bypass PIN entry

Pass Criteria:

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



3.3.10.34 PP.SEAS.C11-T01

PP.SEAS.C11-T01 PIN Preferring, Standard EMV Application Selection Card 11 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A000000042203

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'Mastercard Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard Debit'
 - c. "0060" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.10.35 PP.SEAS.C11-T02

PP.SEAS.C11-T02 PIN Preferring, Standard EMV Application Selection Card 11 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 4. Application is configured as PIN Preferring
- 5. Application Selection is Standard EMV Application Selection
- Terminal supports the following AIDs: A0000000041010, A0000000043060 and A000000042203
- 7. PIN Bypass is supported

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- User is able to select 'Mastercard Debit'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard Debit'
 - c. "0060" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.10.36 PP.SEAS.C11-T03

PP.SEAS.C11-T03 PIN Preferring, Standard EMV Application Selection Card 11 - Test 03

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A000000042203

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A00000004220301" AID selected was 'US Checking'
 - c. "0060" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.10.37 PP.SEAS.C11-T04

PP.SEAS.C11-T04 PIN Preferring, Standard EMV Application Selection Card 11 - Test 04

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A00000004220301" AID selected was 'US Checking'
 - c. "0060" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.10.38 PP.SEAS.C11-T05

PP.SEAS.C11-T05 PIN Preferring, Standard EMV Application Selection Card 11 - Test 05

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A000000042203

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060" AID selected was 'Maestro'
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.10.39 PP.SEAS.C11-T06

PP.SEAS.C11-T06 PIN Preferring, Standard EMV Application Selection Card 11 - Test 06

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A000000042203

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A00000004220302" AID selected was 'US Savings'
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.10.40 PP.SEAS.C11-T07

PP.SEAS.C11-T07 PIN Preferring, Standard EMV Application Selection Card 11 - Test 07

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- User is able to select 'US Savings'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A00000004220302" AID selected was 'US Savings'
 - c. "0051" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.10.41 PP.SEAS.C12-T01

PP.SEAS.C12-T01 PIN Preferring, Standard EMV Application Selection Card 12 - Test 01

Type: Contact

Purpose:

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

- 1. Does <u>not</u> prompt for Credit or Debit
- 2. Prompts the user for Application Selection by displaying 'US Debit' and 'Discover Debit'
- 3. Allows the user to select the 'US Debit' application
- 4. Prompts the user to enter a PIN

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010

Steps:

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

Pass Criteria:

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



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:

- User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Debit' and 'Discover Debit'
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A0000001524010" AID selected was 'US Debit'
 - c. "0005" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



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'
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A0000001523010" AID selected was 'Discover Debit'
 - c. "0005" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



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



3.3.10.45 PP.SEAS.C12-T05

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



3.3.10.46 PP.SEAS.C12-T06

PP.SEAS.C12-T06 PIN Preferring, Standard EMV Application Selection Card 12 - Test 06

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010
- 4. Contactless CVM Floor limit is above \$79

Steps:

- 1. Start a Purchase transaction for \$79.00
- 2. When prompted for card entry, tap Test Card 12

Pass Criteria:

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



3.3.10.47 PP.SEAS.C13-T01

PP.SEAS.C13-T01 PIN Preferring, Standard EMV Application Selection Card 13 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



3.3.10.48 PP.SEAS.C13-T02

PP.SEAS.C13-T02 PIN Preferring, Standard EMV Application Selection Card 13 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



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

Pre-Requisites:

- 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:

- User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'DNA' application is automatically selected
- 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 <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'Interac' application
- 4. Prompts the user to enter a PIN

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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



3.3.10.51 PP.SEAS.C16-T01

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

Type: Contact

Purpose:

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

- Does <u>not</u> 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:

- 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:

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

Comments:

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



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

3.3.11.1 CD.MCCL.C01-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



3.3.11.2 CD.MCCL.C01-T02

CD.MCCL.C01-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 01 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000031010" AID selected was 'Visa Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



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:

- Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A0000000980840
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

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



3.3.11.4 CD.MCCL.C01-T04

CD.MCCL.C01-T04 Credit/Debit Prompting, Merchant Controlled Candidate List Card 01 - Test 04

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A0000000980840
- 4. Contactless CVM Floor limit is above \$10

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- User is <u>not</u> prompted to enter a PIN
- 4. The 'US Debit' application is automatically selected
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A000000980840" AID selected was 'US Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "No signature required" No CVM was used



3.3.11.5 CD.MCCL.C02-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

- User is prompted to select 'Credit' and 'Debit'
- User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000980840" AID selected was 'US Debit'

C.

- d. "0135" last 4 digits of the PAN
- e. "Verified by PIN" PIN CVM was used



3.3.11.6 CD.MCCL.C02-T02

CD.MCCL.C02-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 02 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000980840

Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 02
- 3. When prompted, select 'Credit'

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "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



3.3.11.7 CD.MCCL.C03-T01

CD.MCCL.C03-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 03 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit' and 'Visa Debit'
- User is able to select 'Visa Credit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A00000003101001" AID selected was 'Visa Credit'
 - c. "0176" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



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:

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



3.3.11.9 CD.MCCL.C03-T03

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

Steps:

- 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:

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



3.3.11.10 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:

- Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000033010

Steps:

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

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- User is not prompted to select an application
- 3. The 'Interlink' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000033010" AID selected was 'Interlink'
 - c. "0671" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.11.11 CD.MCCL.C05-T01

CD.MCCL.C05-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 05 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203

Steps:

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

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.11.12 CD.MCCL.C05-T02

CD.MCCL.C05-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 05 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Mastercard Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000041010" AID selected was 'Mastercard Debit'
 - c. "9130" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



3.3.11.13 CD.MCCL.C05-T03

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

- User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.11.14 CD.MCCL.C05-T04

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, 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
- The transaction is approved
- Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "No signature required" No CVM was used



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'
- User is able to select 'Maestro1'
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060D0561111" AID selected was 'Maestro1'
 - c. "2010" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.11.16 CD.MCCL.C06-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 1. Terminal supports the following AID: A000000043060

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- User is able to select 'Maestro2'
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060D0562222" AID selected was 'Maestro2'
 - c. "2028" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.11.17 CD.MCCL.C07-T01

CD.MCCL.C07-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 07 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- User is able to select 'Mastercard'
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard'
 - c. "0060" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



3.3.11.18 CD.MCCL.C07-T02

CD.MCCL.C07-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 07 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A0000000043060

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- User is able to select 'Mastercard'
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard'
 - c. "0060" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.11.19 CD.MCCL.C07-T03

CD.MCCL.C07-T03 Credit/Debit Prompting, Merchant Controlled Candidate List Card 07 - Test 03

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- User is able to select 'Maestro'
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060" AID selected was 'Maestro'
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



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
- Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000042203

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- User is able to select 'US Checking'
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203D0561111" AID selected was 'US Checking'
 - c. "9007" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- User is able to select 'US Savings'
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203D0562222" AID selected was 'US Savings'
 - c. "9015" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.11.23 CD.MCCL.C09-T01

CD.MCCL.C09-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 09 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A0000000042203

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard' and 'Maestro'
- User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard'
 - c. "0060" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



3.3.11.24 CD.MCCL.C09-T02

CD.MCCL.C09-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 09 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- Terminal supports the following AIDs: A000000041010, A0000000043060 and A000000042203

Steps:

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

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



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:

- 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:

- 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'
- User is not prompted to select an application
- The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.11.26 CD.MCCL.C10-T02

CD.MCCL.C10-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 10 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is <u>not</u> prompted to select an application
- The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



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')
- 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:

- Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 3. When prompted, select 'Credit'
- 4. Select 'Mastercard Debit' application when prompted

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard Debit' and 'Maestro' only
- 3. User is able to select 'Mastercard Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000041010" AID selected was 'Mastercard Debit'
 - c. "0060" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



3.3.11.28 CD.MCCL.C11-T02

CD.MCCL.C11-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 11 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A000000042203

Steps:

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

Pass Criteria:

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



3.3.11.29 CD.MCCL.C11-T03

CD.MCCL.C11-T03 Credit/Debit Prompting, Merchant Controlled Candidate List Card 11 - Test 03

Type: Contact

Purpose:

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

- Prompts for Credit and Debit (user selects 'Credit')
- 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 A000000042203

Steps:

- 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:

- 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'
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000043060" AID selected was 'Maestro'
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



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 A000000042203

Steps:

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

Pass Criteria:

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



3.3.11.31 CD.MCCL.C12-T01

CD.MCCL.C12-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 12 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



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:

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

Pass Criteria:

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



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
- Prompts the user to enter a PIN

Pre-Requisites:

- Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: 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'
- User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A0000001524010" AID selected was 'US Debit'
 - c. "0005" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.11.34 CD.MCCL.C13-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



3.3.11.35 CD.MCCL.C14-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 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'
- Enter PIN ("1234") when prompted

Pass Criteria:

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

Comments:

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



3.3.11.36 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:

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

Steps:

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

Pass Criteria:

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

Comments:

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



3.3.11.37 CD.MCCL.C16-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

- 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:

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

Comments:

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



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

3.3.12.1 CD.SEAS.C01-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Visa Debit' and 'US Debit'
- 3. User is able to select 'Visa Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000031010" AID selected was 'Visa Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



3.3.12.2 CD.SEAS.C01-T02

CD.SEAS.C01-T02 Credit/Debit Prompting, Standard EMV Application List Card 01 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Visa Debit' and 'US Debit'
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000980840" AID selected was 'US Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.12.3 CD.SEAS.C01-T03

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A0000000980840
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

- User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A000000031010" AID selected was 'Visa Debit'

C.

- d. "0135" last 4 digits of the PAN
- e. "Signature panel" Signature CVM was used



3.3.12.4 CD.SEAS.C01-T04

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A0000000980840
- 4. Contactless CVM Floor limit is above \$10

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A000000031010" AID selected was 'Visa Debit'
 - c. "0135" last 4 digits of the PAN
 - d. "No Signature Required" No CVM was used



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:

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

Steps:

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

Pass Criteria:

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



3.3.12.6 CD.SEAS.C02-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 02
- 3. When prompted, select 'Credit'

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "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



3.3.12.7 CD.SEAS.C03-T01

CD.SEAS.C03-T01 Credit/Debit Prompting, Standard EMV Application Selection Card 03 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. User is able to select 'Visa Credit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A00000003101001" AID selected was 'Visa Credit'
 - c. '0176' last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



3.3.12.8 CD.SEAS.C03-T02

CD.SEAS.C03-T02 Credit/Debit Prompting, Standard EMV Application List Card 03 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



3.3.12.9 CD.SEAS.C03-T03

CD.SEAS.C03-T03 Credit/Debit Prompting, Standard EMV Application Selection Card 03 - Test 03

Type: Contact

Purpose:

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

- 1. Prompts for Credit and Debit (user selects 'Debit')
- 2. Prompts the user for Application Selection by displaying all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. Allows the user to select the 'US Debit' application
- 4. Prompts the user to enter a PIN

Pre-Requisites:

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

Steps:

- 1. Start a Purchase transaction for \$10.00
- 2. When prompted for card entry, insert Test Card 03
- 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'
- The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000980840" AID selected was 'US Debit'
 - c. '0135 last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.12.10 CD.SEAS.C04-T01

CD.SEAS.C04-T01 Credit/Debit Prompting, Standard EMV Application Selection Card 04 - Test 01

Type: Contact

Purpose:

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

- 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:

- 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:

- User is prompted to select 'Credit' and 'Debit'
- User is not prompted to select an application
- 3. The 'Interlink' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000033010" AID selected was 'Interlink'
 - c. "0671" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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3.3.12.11 CD.SEAS.C05-T01

CD.SEAS.C05-T01 Credit/Debit Prompting, Standard EMV Application List Card 05 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203

Steps:

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

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard Debit' and 'US Maestro'
- User is able to select 'Mastercard'
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard Debit'

C.

- d. "9130" last 4 digits of the PAN
- e. "Signature panel" or "No signature required" Signature or No CVM was used



3.3.12.12 CD.SEAS.C05-T02

CD.SEAS.C05-T02 Credit/Debit Prompting, Standard EMV Application List Card 05 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard Debit' and 'US Maestro'
- 3. User is able to select 'US Maestro'
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.12.13 CD.SEAS.C05-T03

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'Mastercard Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A000000041010" AID selected was 'Mastercard Debit'
 - c. "9130" last 4 digits of the PAN
 - d. "Signature Panel" Signature CVM was used



3.3.12.14 CD.SEAS.C05-T04

CD.SEAS.C05-T04 Credit/Debit Prompting, Standard EMV Application Selection Card 05 - Test 04

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A0000000042203
- 4. Contactless CVM Floor limit is above \$20

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Mastercard Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A000000041010" AID selected was 'Mastercard Debit'
 - c. "9130" last 4 digits of the PAN
 - d. "No Signature Required" No CVM was used



3.3.12.15 CD.SEAS.C06-T01

CD.SEAS.C06-T01 Credit/Debit Prompting, Standard EMV Application List Card 06 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 06
- 3. When prompted, select 'Debit'
- 4. Select 'Maestro1' application when prompted
- 5. Enter PIN ("4315") when prompted

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- User is able to select 'Maestro1'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060D0561111" AID selected was 'Maestro1'
 - c. "2010" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.12.16 CD.SEAS.C06-T02

CD.SEAS.C06-T02 Credit/Debit Prompting, Standard EMV Application List Card 06 - Test 02

Type: Contact

Purpose:

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

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

Prompts the user to enter a PIN

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: 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. "A000000043060D0562222" AID selected was 'Maestro2'
 - c. "2028" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.12.17 CD.SEAS.C07-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A0000000043060

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- User is able to select 'Mastercard'
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard'
 - c. "0060" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



3.3.12.18 CD.SEAS.C07-T02

CD.SEAS.C07-T02 Credit/Debit Prompting, Standard EMV Application List Card 07 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- User is able to select 'Mastercard'
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard'
 - c. "0060" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.12.19 CD.SEAS.C07-T03

CD.SEAS.C07-T03 Credit/Debit Prompting, Standard EMV Application List Card 07 - Test 03

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- User is able to select 'Maestro'
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060" AID selected was 'Maestro'
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.12.20 CD.SEAS.C08-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- User is able to select 'US Checking'
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203D0561111" AID selected was 'US Checking'
 - c. "9007" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- User is able to select 'US Checking'
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203D0561111" AID selected was 'US Checking'
 - c. "9007" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



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
- 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
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203D0562222" AID selected was 'US Savings'
 - c. "9015" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



3.3.12.23 CD.SEAS.C08-T04

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- User is able to select 'US Savings'
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203D0562222" AID selected was 'US Savings'
 - c. "9015" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.12.24 CD.SEAS.C09-T01

CD.MCCL.C09-T01 Credit/Debit Prompting, Standard EMV Application Selection Card 09 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

- Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- When prompted, select 'Credit'
- 4. Select 'Mastercard' application when prompted

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard'
 - c. "0060" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



3.3.12.25 CD.SEAS.C09-T02

CD.SEAS.C09-T02 Credit/Debit Prompting, Standard EMV Application Selection Card 09 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- User is able to select 'Maestro'
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000043060" AID selected was 'Maestro'
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.12.26 CD.SEAS.C09-T03

CD.SEAS.C09-T03 Credit/Debit Prompting, Standard EMV Application Selection Card 09 - Test 03

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

- Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 09
- 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'
- User is able to select 'US Maestro'
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



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:

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

Steps:

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

Pass Criteria:

- User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.12.28 CD.SEAS.C10-T02

CD.SEAS.C10-T02 Credit/Debit Prompting, Standard EMV Application Selection Card 10 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is <u>not</u> prompted to select an application
- The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used



3.3.12.29 CD.SEAS.C11-T01

CD.SEAS.C11-T01 Credit/Debit Prompting, Standard EMV Application Selection Card 11 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- User is able to select 'Mastercard Debit'
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard Debit'
 - c. "0060" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.12.30 CD.SEAS.C11-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- User is able to select 'Mastercard Debit'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000041010" AID selected was 'Mastercard Debit'
 - c. "0060" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



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

Pass Criteria:

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



3.3.12.32 CD.SEAS.C11-T04

CD.SEAS.C11-T04 Credit/Debit Prompting, Standard EMV Application Selection Card 11 - Test 04

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- User is prompted to select 'Credit' and 'Debit'
- User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A00000004220301" AID selected was 'US Checking'
 - c. "0060" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



3.3.12.33 CD.SEAS.C11-T05

CD.SEAS.C11-T05 Credit/Debit Prompting, Standard EMV Application Selection Card 11 - Test 05

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

- Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, insert Test Card 11
- 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
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060" AID selected was 'Maestro'
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.12.34 CD.SEAS.C11-T06

CD.SEAS.C11-T06 Credit/Debit Prompting, Standard EMV Application Selection Card 11 - Test 06

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A00000004220302" AID selected was 'US Savings'
 - c. "0051" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.12.35 CD.SEAS.C11-T07

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A0000000041010, A0000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

- User is prompted to select 'Credit' and 'Debit'
- User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- User is able to select 'US Savings'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- The transaction is approved
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A00000004220302" AID selected was 'US Savings'
 - c. "0051" last 4 digits of the PAN
 - d. "No signature required" or "Signature panel" No CVM or Signature CVM was used



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:

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



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



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
- Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A0000001523010" AID selected was 'Discover Debit'
 - c. "0005" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used



3.3.12.39 CD.SEAS.C12-T04

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



3.3.12.40 CD.SEAS.C12-T05

CD.SEAS.C12-T05 Credit/Debit Prompting, Standard EMV Application List Card 12 - Test 05

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is 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
- The transaction is approved
- 6. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "A0000001524010" AID selected was 'US Debit'
 - c. "0005" last 4 digits of the PAN
 - d. "No signature required" No CVM was used



3.3.12.41 CD.SEAS.C13-T01

CD.SEAS.C13-T01 Credit/Debit Prompting, Standard EMV Application List Card 13 - Test 01

Type: Contact

Purpose:

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

- 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:

- 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:

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

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3.3.12.42 CD.SEAS.C13-T02

CD.SEAS.C13-T02 Credit/Debit Prompting, Standard EMV Application List Card 13 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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



3.3.12.43 CD.SEAS.C14-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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



3.3.12.44 CD.SEAS.C15-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

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

Steps:

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

Pass Criteria:

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

Comments:

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



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 | A000000031010 A000000980840 | A0000000980840 | A00000003101001 A00000003101002 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 defin | | 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 | v5.0 |



| | Test Card 04 | Test Card 05 | Test Card 06 |
|-------------------------------------|---------------------|----------------------------------|---|
| Brand | Visa | Mastercard | Mastercard |
| Description (Card + types) | Interlink | Global / Common | Maestro Dual-Funding |
| AID list | A000000033010 | A0000000041010 A0000000042203 | A000000043060 D0561111 A000000043060 D05621222 |
| PAN on plastic | 4761 7390 0101 0671 | 5413 3300 8909 9130 | 5413 3300 0000 2010 |
| Expiry Date | Expiry Date 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 | and Mastercard | | Mastercard |
| Description | Credit / Int'l | U.S. Maestro - Dual- Funding | Credit / Global / U.S. Common |
| AID list | A0000000041010 A00000000043060 | A000000042203 D0561111 A000000042203 D0562222 | A0000000041010 A0000000043060 A0000000042203 |
| PAN on plastic | 5413 3300 8902 0060 | 5413 3300 8909 9007 | 5413 3300 8902 0060 |
| Expiry Date 12/2022 | | 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 |
|----------------------------------|-------------------------|---|--|
| Basad | | | |
| Brand | Mastercard | Mastercard | Discover |
| Description | U.S. Maestro | MC+U.S. Maestro / Maestro+U.S. Maestro | Discover U.S. Debit / Discover |
| AID list A0000000042203 | | A000000041010 A000000004220301 A0000000043060 A000000004220302 | A0000001524010 A0000001523010 |
| PAN on plastic | 5413 3300 8909 9130 | 5413 3300 8909 0060 | 6011 9737 0000 0005 |
| Expiry Date | Expiry Date 12/2022 | | 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 | Approval Amount \$20.00 | | \$79.00 |
| Issuer Country Code 840 - USA | | 840 - USA | 840 - USA |
| Application 840 - USD | | 840 - USD | 840 - USD |
| Language 'en' - English | | 'en' - English | ʻenesfr' (English, Spanish, French) |
| Card Version | v4.0 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 A000000031010

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

4.1.2 Contact: Application Tag data, AID A000000031010

| | | 1 ag 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 | 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 |
| | 2 (CDOL2) | 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 |
| | , , | OA |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 01 42 04 1E 04 02 05 5E 00 42 00 1F 00 |
| 0.4 | List | 08 01 02 00 |
| 94 | Application File Locator (AFL) | |
| 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 |
| 05.00 | A self-self-self-self-self-self-self-self- | b7 - International cashback NOT allowed |
| 9F 08 | Application Version Number | 00 96 FC 50 AC 88 00 |
| 9F 0D | Issuer Action Code - Default | 00 00 00 00 00 |
| 9F 0E | Issuer Action Code - Denial | FC 70 BC 98 00 |
| 9F 0F 9F 10 | Issuer Application Data IVSDC1 | xx xx A0 xx xx xx xx * |
| 9F 10 | Issuer Application Data [VSDC] Issuer Code Table Index | 01 |
| 9F 11 | Application Preferred Name | 56 69 73 61 20 44 65 62 69 74 20 20 |
| 91 12 | Application Freieneu Name | 20 20 20 - 'Visa Debit' |
| 9F 13 | Last Online Application Transaction | xx xx * |
| | Counter (ATC) Register | |
| 9F 17 | Personal Identification Number (PIN) | 01 |
| | Try Counter | |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 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 |
| 0E 51 | Application Currency Code [VSDC] | 1A 02 95 05 9C 01 9F 27 01 08 40 - USD |
| 9F 51 9F 52 | Application Currency Code [VSDC] Application Default Action [VSDC VIS | 00 00 00 00 00 00 |
| 91 32 | Application Default Action [VSDC VIS 1.5] | |
| 9F 56 | Issuer Authentication Indicator [VSDC] | 80 |
| 9F 57 | Issuer Country Code [VSDC] | 08 40 - USA |
| 9F 5D | Available Offline Spending Amount | 00 00 00 00 00 00 |
| 0. 05 | [VSDC] | |
| 9F 68 | Card Additional Processes [qVSDC | 10 00 10 00 |
| | VCPS 2.1] | |
| BF 55 | Contactless Counters Data Template | |
| BF 56 | Counters Data Template | |
| BF 57 | International Counters Data Template | |
| BF 58 | Amounts Data Template | |
| BF 59 | Profile Controls Template | |



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

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

4.1.4 Contact: Application Tag data, AID 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 |
| | A 11 11 5 1 11 5 1 | 20 20 - 'USA DEBIT/Test Card 01' |
| 5F 24 | Application Expiration Date | |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 01 |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' |
| 82 | Application Interchange Profile [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 |



| 05.07 | Application Hoose Control | AB 80 |
|-------|--|---|
| 9F 07 | Application Usage Control | BYTE 1: |
| | | b8 - Domestic cash transactions valid |
| | | b7 - Int'l cash transactions NOT valid |
| | | b6 - Domestic goods valid |
| | | b5 - International goods NOT valid |
| | | b4 - Domestic services valid |
| | | b3 - International services NOT valid |
| | | b2 - ATMs valid |
| | | b1- Terminals other than ATMs valid |
| | | BYTE 2: |
| | | b8 - Domestic cashback 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 |
| | 7 | 20 20 20 - 'US Debit' |
| 9F 13 | Last Online Application Transaction | xx xx * |
| | Counter (ATC) Register | |
| 9F 17 | Personal Identification Number (PIN) | 01 |
| | Try Counter | |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 38 | Processing Options Data Object List | 9F 06 05 |
| | (PDOL) | |
| 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 |
| 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 |
| 9F 68 | Card Additional Processes [qVSDC VCPS 2.1] | 10 00 80 00 |
| BF 55 | Contactless Counters Data Template | |
| BF 56 | Counters Data Template 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 | PT 01 00 00 00 |
| BF 5B | Application Internal Data Template | DF 01 02 00 00 |

4.1.5 Contactless: Application Tag data, AID A000000031010

| | | rag value changes with early 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 x * |
| 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 A000000980840

| | rag value changes with eard 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 | 47 61 73 90 01 01 01 35 | | | |
| | (PAN) | | | | |
| 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 | | | |
| 0.4 | De l'este IETE (DE) Neve | 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 |
| 9F 10 | Issuer Application Data [VSDC] | b7 - International cashback NOT allowed |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 12 | Application Preferred Name | 55 53 20 44 65 62 69 74 20 20 20 20 20 20 20 20 20 20 20 - '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 * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 38 | Processing Options Data Object List | 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 |
| | (PDOL) | 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 |
| 9F 4F | Transaction Log Format | 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 9F 27 01 |
| 9F 51 | Application Currency Code [VSDC] | 08 40 - USD |
| 9F 52 | Application Default Action [VSDC VIS 1.5] | 00 00 00 00 |
| 9F 57 | Issuer Country Code [VSDC] | 08 40 - USA |
| 9F 5A | Application Program Identifier | 11 08 40 08 40 |
| 9F 5D | Available Offline Spending Amount [VSDC] | 00 00 00 00 00 |
| 9F 68 | Card Additional Processes [qVSDC VCPS 2.1] | 10 00 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 | 00 00 |
| 3. 30 | VCPS 2.1] | |



| 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 | d Conditions If unsuccessful | | | |
| 1 | Online PIN | Unattended Cash | Fail | | |
| 2 | Fail CVM Processing | Manual Cash | Fail | | |
| 3 | Online PIN | Purchase with Cashback Fail | | | |
| 4 | Online PIN | Always | Next CVM | | |
| 5 | No CVM required | Always | Fail | | |

4.2.2 Contact: Application Tag data, AID A000000980840

| Tag | Element name | Data 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 |
| | γ ₁ 3 3 1 1. | 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 |
|----------|---|--|
| · ag | | External Authenticate command |
| | | b1 - Combined DDA / GEN AC NOT supported |
| | | BYTE 2: |
| | | b8 - Mag-stripe mode NOT supported |
| 0.4 | Dedicated File (DF) Name | b7 - Is NOT Mobile phone A0 00 00 00 98 08 40 |
| 84 | Dedicated File (DF) Name | 02 |
| 87 | Application Priority Indicator | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| 8C | Card Risk Management Data Object List | 2A 02 9A 03 9C 01 9F 37 04 |
| 0D | 1 (CDOL1) | 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 |
| 8D | Card Risk Management Data Object List 2 (CDOL2) | 05 5F 2A 02 9A 03 9C 01 9F 37 04 |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 01 00 04 |
| OL | List | 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 |
| 30 | lissuel 1 ublic Ney Certificate | BD E9 21 66 B0 F6 22 1B BC CB 02 E3 |
| | | 26 71 0B 9E 22 9D 16 FA E9 AD 0C 87 |
| | | 4C 06 85 91 6E 19 F0 E3 26 93 EE 20 |
| | | 1B CE 23 59 50 9A 6D 65 72 F8 EC 3F |
| | | C3 73 12 6B 34 3F 9C B8 15 3D 61 B7 EA B2 D4 2D E1 9D 56 08 31 85 A0 3D |
| | | D1 4C 26 8D 40 DF 08 35 C5 5E AB FA |
| | | 38 ED 28 BC E4 2C DO 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 |
| <u> </u> | | 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 * |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 12 | Application Preferred Name | 55 53 20 44 65 62 69 74 - 'US Debit' |
| 9F 13 | Last Online Application Transaction | xx xx * |
| | Counter (ATC) Register | |
| 9F 17 | Personal Identification Number (PIN) | 03 |
| | Try Counter | |
| 9F 1F | Track 1 Discretionary Data | 20 20 20 20 20 20 20 20 20 20 20 20 20 2 |
| 0E 26 | Application Cryptogram (AC) | 20 20 20 20 20 20 20 20 20 20 20 20 20 2 |
| 9F 26 | Application Cryptogram (AC) | 80 |
| 9F 27 | Cryptogram Information Data (CID) | 00 |



| Tag | Element name | Da | ta | | | | | | | | | V | 4.0 |
|-------|--|-----|------------|-----|----|-----|----|----|------------|----------|----|----------|-----|
| 9F 32 | Issuer Public Key Exponent | 03 | | | | | | | | | | <u> </u> | |
| 9F 36 | Application Transaction Counter (ATC) | xx | хх | * | | | | | | | | | |
| 9F 44 | Application Currency Exponent | 02 | | | | | | | | | | | |
| 9F 46 | ICC Public Key Certificate | 21 | F3 | FF | 81 | 73 | C5 | 37 | DA | BD | F2 | DB | C2 |
| 00 | The state of the s | EB | 72 | 94 | 5A | 6A | С6 | вв | E 3 | 80 | 62 | 80 | 44 |
| | | | | | | | | | | 64 | | | |
| | | | | | | | | | | DF | | | |
| | | _ | | | | - | _ | | | 75 2D | _ | _ | |
| | | | | | | | | | | B9 | | | |
| | | | | | | | | | | 09 | | | |
| | | С6 | 0 A | 25 | 8E | DF | 15 | в9 | 1C | 32 | 9A | D9 | 8E |
| | | | | | | | | | | 57 | | | |
| | | | | | | | | | | 89 | | | |
| | | | | | | | | | | 5C | | | |
| | | | | | | | | | | 91 54 | | | |
| | | | | | | 56 | | | | 34 | LI | 67 | CD |
| 9F 47 | ICC Public Key Exponent | 03 | | - | | - | | | | | | | |
| 9F 49 | Dynamic Data Authentication Data | 9F | 37 | 04 | | | | | | | | | |
| 0. 10 | Object List (DDOL) | | | | | | | | | | | | |
| 9F 4A | Static Data Authentication Tag List | 82 | | | | | | | | | | | |
| 9F 51 | Application Currency Code [VSDC] | | | - U | | | | | | | | | |
| 9F 52 | Application Default Action [VSDC VIS | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| | 1.5] | | | | | | | | | | | | |
| 9F 53 | Consecutive Transaction Limit | 00 | | | | | | | | | | | |
| | (International) [VSDC] | | | | | | | | | | | | |
| 9F 54 | Cumulative Total Transaction Amount | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| | Limit [VSDC] | | | | | | | | | | | | |
| 9F 57 | Issuer Country Code [VSDC] | | 40 | - U | SA | | | | | | | | |
| 9F 58 | Consecutive Transaction Counter Limit | 00 | | | | | | | | | | | |
| | [VSDC] | | | | | | | | | | | | |
| 9F 59 | Consecutive Transaction Counter Upper | 00 | | | | | | | | | | | |
| | Limit [VSDC] | | | | | | | | | | | | |
| 9F 5C | Cumulative Total Transaction Amount | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| | Upper Limit [VSDC] | 00 | | | | | | | | | | | |
| 9F 5E | Consecutive Transaction International | 00 | | | | | | | | | | | |
| 05.00 | Upper Limit [VSDC] | 1.0 | 00 | 1.0 | 00 | | | | | | | | |
| 9F 68 | Card Additional Processes [qVSDC | 10 | UÜ | ΤO | UU | | | | | | | | |
| 05.70 | VCPS 2.1] | 00 | | | | | | | | | | | |
| 9F 72 | Consecutive Transaction Limit | 00 | | | | | | | | | | | |
| DEFE | (International-Country) [VSDC] | רב | 11 | 01 | 00 | חבי | 21 | 01 | 00 | DF | 21 | 01 | 00 |
| BF 55 | Contactless Counters Data Template | | | | | | | | | DF | | | |
| BF 56 | Counters Data Template | | | | | | | | | DF | | | |
| BF 57 | International Counters Data Template | | | | | DF | | | | שני | 21 | OΙ | UU |
| BF 58 | Amounts Data Template | | | | | | | | | 00 | DF | 21 | 06 |
| 5, 50 | / Amounto Data Tompiato | | | | | | | | | 06 | | | |
| | | 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 - A00000003101001

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

4.3.2 Contact: Application Tag data, AID A00000003101001

| | | rag value changes with card usage |
|-------|--|---|
| Tag | Element name | Data v5.0 |
| 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 0F |
| 5A | Application Primary Account Number (PAN) | 47 61 73 90 01 01 01 76 |
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 30 33 20 20 |
| | | 20 20 - 'USA DEBIT/Test Card 03' |
| 5F 24 | Application Expiration Date | 22 12 31 |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 01 |
| 82 | Application Interchange Profile [VSDC] | 18 00 |
| | | BYTE 1: |
| | | b7 - Offline SDA NOT supported |
| | | b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using |
| | | External Authenticate command |
| | | b1 - Combined DDA / GEN AC NOT supported |
| | | BYTE 2: |
| | | b8 - Mag-stripe mode NOT supported |
| | | b7 - Is NOT Mobile phone |
| 84 | Dedicated File (DF) Name | A0 00 00 00 03 10 10 01 |
| 87 | Application Priority Indicator | 01 |
| 8C | Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 |
| 8D | Card Risk Management Data Object List | 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 |
| | 2 (CDOL2) | 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 |
| | ` , | 0A |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 01 42 04 |
| | List | 1E 04 00 05 5E 00 1F 00 00 00 |



| Tag | Element name | Data v5.0 | | |
|-------|--|---|--|--|
| 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 0A xx xx xx * | | |
| 9F 11 | Issuer Code Table Index | 01 | | |
| 9F 12 | Application Preferred Name | 56 69 73 61 20 43 72 65 64 69 74 20 | | |
| | | 20 20 20 20 - 'Visa Credit' | | |
| 9F 13 | Last Online Application Transaction | xx xx * | | |
| | Counter (ATC) Register | | | |
| 9F 17 | Personal Identification Number (PIN) | 00 | | |
| | Try Counter | | | |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * | | |
| 9F 27 | Cryptogram Information Data (CID) | 80 | | |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * | | |
| 9F 38 | Processing Options Data Object List (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 | | |
| 05.54 | A 1' 1' 0 0 1 1' 10' 10' 10' 10' 10' 10' | 1A 02 95 05 9C 01 9F 27 01 | | |
| 9F 51 | Application Currency Code [VSDC] | 08 40 - USD | | |
| 9F 52 | Application Default Action [VSDC VIS 1.5] | 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 00 DF 12 0B 20 00 00 00 00 00 00 00 00 00 00 00 00 | | |
| BF 5A | AIP/AFL Entries Template | DF 11 0B 18 00 08 08 01 01 00 10 01 | | |
| טו אל | All /All E Ellilles Telliplate | 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 A00000003101002

| Cardholder Verification Method List ('0201 4204 1E04 0005 5E00 1F00 0000') | | | | | |
|--|---------------------|------------------------|-----------------|--|--|
| CVM | Verification Method | Conditions | If unsuccessful | | |
| 1 | Online PIN | Unattended Cash | Fail | | |
| 2 | Online PIN | Manual Cash | Next CVM | | |
| 3 | Signature (paper) | Manual Cash | Fail | | |
| 4 | Fail CVM Processing | Purchase with Cashback | Fail | | |
| 5 | Signature (paper) | Always | Next CVM | | |
| 6 | No CVM required | Always | Fail | | |
| 7 | Fail CVM Processing | Always | Fail | | |

4.3.4 Contact: Application Tag data, AID A00000003101002

| | * Tag value changes with card usage | | |
|-------|---|--|--|
| Tag | Element name | Data v5.0 | |
| 42 | Issuer Identification Number (IIN) | 47 61 73 | |
| 50 | Application Label | 56 49 53 41 20 44 45 42 49 54 20 20 | |
| | | 20 20 20 20 - 'VISA DEBIT' | |
| 57 | Track 2 Equivalent Data | 47 61 73 90 01 01 01 35 D2 21 22 01 | |
| - A | A self-self-self-self-self-self-self-self- | 11 14 38 04 40 00 0F 47 61 73 90 01 01 01 35 | |
| 5A | Application Primary Account Number (PAN) | | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 | |
| | | 73 74 20 43 61 72 64 20 30 33 20 20 | |
| 55.04 | Assiltantia Estimita Data | 20 20 - 'USA DEBIT/Test Card 03' | |
| 5F 24 | Application Expiration Date | | |
| 5F 28 | Issuer Country Code | 08 40 - 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] | 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) | 00 00 00 00 00 00 00 00 02 01 42 04 | |
| | List | 1E 04 02 05 5E 00 42 00 1F 00 00 00 08 01 01 00 10 01 01 00 | |



| Tag | Element name | Data v5.0 |
|-------|--|---|
| 9F 07 | Application Usage Control | FF 80 |
| | 11 | BYTE 1: |
| | | b8 - Domestic cash transactions valid |
| | | b7 - Int'l cash transactions valid |
| | | b6 - Domestic goods valid |
| | | b5 - International goods valid |
| | | b4 - Domestic services valid b3 - International services valid |
| | | b2 - ATMs valid |
| | | b1- Terminals other than ATMs valid |
| | | BYTE 2: |
| | | b8 - Domestic cashback allowed |
| | | b7 - International cashback NOT allowed |
| 9F 08 | Application Version Number | 00 96 |
| 9F 0D | Issuer Action Code - Default | FC 50 AC 88 00 |
| 9F 0E | Issuer Action Code - Denial | 00 00 00 00 00 |
| 9F 0F | Issuer Action Code - Online | FC 70 BC 98 00 |
| 9F 10 | Issuer Application Data [VSDC] | xx xx 0A xx xx xx * |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 12 | Application Preferred Name | 56 69 73 61 20 44 65 62 69 74 20 20 |
| 01 12 | Application Frontied Name | 20 20 20 20 - 'Visa Debit' |
| 9F 13 | Last Online Application Transaction | xx xx * |
| 00 | Counter (ATC) Register | |
| 9F 17 | Personal Identification Number (PIN) | 00 |
| 0 | Try Counter | |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 38 | Processing Options Data Object List | 9F 06 07 |
| 31 00 | (PDOL) | |
| 9F 44 | Application Currency Exponent | 02 |
| 9F 4F | Transaction Log Format | 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F |
| 31 41 | Transaction Log Format | 1A 02 95 05 9C 01 9F 27 01 |
| 9F 51 | Application Currency Code [VSDC] | 08 40 - USD |
| 9F 52 | Application Default Action [VSDC VIS | 00 00 00 00 00 00 |
| | 1.5] | |
| 9F 56 | Issuer Authentication Indicator [VSDC] | 00 |
| 9F 57 | Issuer Country Code [VSDC] | 08 40 - USA |
| BF 55 | Contactless Counters Data Template | |
| BF 56 | Counters Data Template | |
| BF 57 | International Counters Data Template | |
| BF 58 | Amounts Data Template | |
| BF 59 | Profile Controls Template | DF 11 0B 10 00 00 00 00 00 00 00 00 |
| פט ום | Tronic Controls remplate | 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 |



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

| Cardho | Cardholder Verification Method List ('0201 0004 0205 4200 1F00 0000') | | | | | | |
|--------|---|--------------------------|----------|--|--|--|--|
| CVM | Verification Method | If unsuccessful | | | | | |
| 1 | Online PIN | Unattended Cash | | | | | |
| 2 | Fail CVM Processing | M Processing Manual Cash | | | | | |
| 3 | Online PIN | Purchase with Cashback | Fail | | | | |
| 4 | Online PIN Always | | Next CVM | | | | |
| 5 | No CVM required | Always | Fail | | | | |

4.3.6 Contact: Application Tag data, AID A000000980840

| | | * Tag value changes with card usage | | | | | | |
|---|--|--|--|--|--|--|--|--|
| Tag | Element name | Data v5.0 | | | | | | |
| 42 | Issuer Identification Number (IIN) | 47 61 73 | | | | | | |
| 50 | Application Label | 55 53 20 44 45 42 49 54 20 20 20 20 | | | | | | |
| | | 20 20 20 20 - 'US DEBIT' | | | | | | |
| 57 | Track 2 Equivalent Data | 47 61 73 90 01 01 01 35 D2 21 22 01 | | | | | | |
| <i></i> | Application Drive on Account Number | 11 14 38 04 40 00 0F 47 61 73 90 01 01 01 35 | | | | | | |
| 5A | Application Primary Account Number (PAN) | | | | | | | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 | | | | | | |
| | | 73 74 20 43 61 72 64 20 30 33 20 20 | | | | | | |
| 55.04 | | 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 | | | | | | |
| | | | | | | | | |
| | | l b5 - Cardholder verification supported | | | | | | |
| | | b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed | | | | | | |
| | | b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using | | | | | | |
| | | b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command | | | | | | |
| | | b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT 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: | | | | | | |
| | | 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 | | | | | | |
| 84 | Dedicated File (DF) Name | 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: | | | | | | |
| 84 87 | Dedicated File (DF) Name Application Priority Indicator | 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 | | | | | | |
| 87 | Application Priority Indicator | 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 A0 00 00 00 98 08 40 | | | | | | |
| | Application Priority Indicator Card Risk Management Data Object List | 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 A0 00 00 00 98 08 40 03 | | | | | | |
| 87 | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) | 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 A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F | | | | | | |
| 87 8C | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List | 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 A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 | | | | | | |
| 87 8C 8D | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List 2 (CDOL2) | 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 A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A | | | | | | |
| 87 8C | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List 2 (CDOL2) Cardholder Verification Method (CVM) | 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 A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A 00 00 00 00 00 00 00 00 00 00 02 01 00 04 | | | | | | |
| 87 8C 8D 8E | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List 2 (CDOL2) Cardholder Verification Method (CVM) List | 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 A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A 00 00 00 00 00 00 00 00 00 00 00 00 00 | | | | | | |
| 87 8C 8D 8E 94 | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List 2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) | 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 A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A 00 00 00 00 00 00 00 00 00 00 00 00 00 | | | | | | |
| 87 8C 8D 8E 94 9F 07 | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List 2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application Usage Control | 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 A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A 00 00 00 00 00 00 00 00 00 00 02 00 00 00 00 08 01 01 00 10 02 02 00 AB 80 | | | | | | |
| 87 8C 8D 8E 94 9F 07 9F 08 | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List 2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application Usage Control Application Version Number | 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 A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A 00 00 00 00 00 00 00 00 00 00 00 00 00 | | | | | | |
| 87 8C 8D 8E 94 9F 07 9F 08 9F 0D | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List 2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application Usage Control Application Version Number Issuer Action Code - Default | 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 A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A 00 00 00 00 00 00 00 00 00 00 00 00 00 | | | | | | |
| 87 8C 8D 8E 94 9F 07 9F 08 9F 0D 9F 0E | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List 2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application Usage Control Application Version Number Issuer Action Code - Default Issuer Action Code - Denial | 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 A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A 00 00 00 00 00 00 00 00 00 00 00 08 01 01 00 10 02 02 00 AB 80 00 96 FC 50 AC 88 00 00 00 00 00 00 00 | | | | | | |
| 87 8C 8D 8E 94 9F 07 9F 08 9F 0D 9F 0E 9F 0F | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List 2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application Usage Control Application Version Number Issuer Action Code - Default Issuer Action Code - Online | 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 A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A 00 00 00 00 00 00 00 00 00 00 00 02 01 00 04 02 05 42 00 1F 00 00 00 08 01 01 00 10 02 02 00 AB 80 00 96 FC 50 AC 88 00 00 00 00 00 00 00 FC 70 BC 98 00 | | | | | | |
| 87 8C 8D 8E 94 9F 07 9F 08 9F 0D 9F 0E | Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Card Risk Management Data Object List 2 (CDOL2) Cardholder Verification Method (CVM) List Application File Locator (AFL) Application Usage Control Application Version Number Issuer Action Code - Default Issuer Action Code - Denial | 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 A0 00 00 00 98 08 40 03 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A 00 00 00 00 00 00 00 00 00 00 00 08 01 01 00 10 02 02 00 AB 80 00 96 FC 50 AC 88 00 00 00 00 00 00 00 | | | | | | |



| Tag | Element name | Data v5.0 |
|-------|--|--|
| 9F 12 | Application Preferred Name | 55 53 20 44 65 62 69 74 20 20 20 20 |
| | | 20 20 20 - 'US Debit' |
| 9F 13 | Last Online Application Transaction | xx xx * |
| | Counter (ATC) Register | |
| 9F 17 | Personal Identification Number (PIN) | 00 |
| | Try Counter | |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 38 | Processing Options Data Object List | 9F 06 07 |
| | (PDOL) | |
| 9F 44 | Application Currency Exponent | 02 |
| 9F 4F | Transaction Log Format | 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F |
| | | 1A 02 95 05 9C 01 9F 27 01 |
| 9F 51 | Application Currency Code [VSDC] | 08 40 - USD |
| 9F 52 | Application Default Action [VSDC VIS | 00 00 00 00 00 00 |
| | 1.5] | |
| 9F 56 | Issuer Authentication Indicator [VSDC] | 00 |
| 9F 57 | Issuer Country Code [VSDC] | 08 40 - USA |
| BF 55 | Contactless Counters Data Template | |
| BF 56 | Counters Data Template | |
| BF 57 | International Counters Data Template | |
| BF 58 | Amounts Data Template | |
| BF 59 | Profile Controls Template | DF 11 0B 10 00 00 00 00 00 00 00 00 |
| | | 00 00 DF 12 0B 20 00 00 00 00 00 |
| DE 5. | AID/AEL Estés a Tamalata | 00 00 00 00 DF 11 0B 18 00 08 08 01 01 00 10 01 |
| BF 5A | AIP/AFL Entries Template | O1 00 DF 12 0B 18 00 08 01 01 00 10 01 |
| | | 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 A000000033010

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

4.4.2 Contact: Application Tag data, AID A000000033010

| | * 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 | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F | | | | | |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 | | | | | |
| 8D | Card Risk Management Data Object List | 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 | | | | | |
| | 2 (CDOL2) | 05 5F 2A 02 9A 03 9C 01 9F 37 04 | | | | | |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 03 1F 03 | | | | | |
| - | List | | | | | | |
| 8F | Certification Authority Public Key Index | 92 | | | | | |
| <u> </u> | to the second realistic for the second realist | 1 | | | | | |



| 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 OC 61 4B 41 B1 56 98 D1 55 63 |
| | | 05 95 A5 75 0D B7 C5 B9 22 84 0B DA |
| | | 84 8B 61 D9 14 2A F8 35 7E 27 D4 92 B7 03 F1 C6 E3 D2 3C AC DC 60 E3 C7 |
| | | 8F 00 36 E1 0C A4 1B B7 53 6D 0F 4F |
| | | C4 18 6D 5B 3D A0 44 12 |
| 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 |
| 01 07 | 7 tpp llocation coago control | BYTE 1: |
| | | b8 - Domestic cash transactions valid |
| | | b7 - Int'l cash transactions valid |
| | | b6 - Domestic goods valid b5 - International goods valid |
| | | b4 - Domestic services valid |
| | | b3 - International services valid |
| | | b2 - ATMs valid |
| | | b1- Terminals other than ATMs valid BYTE 2: |
| | | b8 - Domestic cashback allowed |
| | | b7 - International cashback 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 49 6E 74 65 72 6C 69 6E 6B - 'Interlink' |
| 9F 12 9F 13 | Application Preferred Name Last Online Application Transaction | 49 6E 74 65 72 6C 69 6E 6B - INTERIINK |
| 91 13 | Counter (ATC) Register | |
| 9F 17 | Personal Identification Number (PIN) | 09 |
| 0, | Try Counter | |
| 9F 1F | Track 1 Discretionary Data | 31 33 35 30 36 30 30 31 34 36 30 30 |
| | • | 30 30 30 30 30 30 30 30 30 30 30 |
| 9F 26 | Application Cryptogram (AC) | 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 |
| | | OD EA 4F 04 BF 7A 17 OC D3 61 1A 3A |
| | | ED A8 AC FE E5 46 1E 70 9E 5C 82 3E 6D B4 D7 17 26 C3 78 88 93 19 61 ED |
| | | 6E DD 3F 97 4F 3E D2 92 8B 16 26 20 |
| | | 5B EF 07 23 80 EF 6F 9E 0C 55 36 CF |
| | | 63 46 EE A2 4E FB 62 81 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 | 9F 37 04 |
| | Object List (DDOL) | |
| 9F 4A | Static Data Authentication Tag List | 82 |
| 9F 51 | Application Currency Code [VSDC] | 08 40 - USD |
| 9F 52 | Application Default Action [VSDC VIS | CO 00 00 00 00 00 |
| | 1.5] | |
| 9F 53 | Consecutive Transaction Limit | 00 |
| | (International) [VSDC] | |
| 9F 54 | Cumulative Total Transaction Amount | 00 00 00 00 00 00 |
| 0= =0 | Limit [VSDC] | |
| 9F 56 | Issuer Authentication Indicator [VSDC] | 80 |
| 9F 57 | Issuer Country Code [VSDC] | 08 40 - USA 00 |
| 9F 58 | Consecutive Transaction Counter Limit [VSDC] | |
| 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 |
| 9F 79 | VLP Available Funds [VSDC] | 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 00 DF 21 01 00 DF 31 01 00 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 DF 21 06 |
| | | 00 00 00 00 00 00 DF 31 06 00 00 00 |
| BF 5B | Application Internal Data Template | 00 00 00 DF 01 02 00 00 |
| DE 3D | Application internal Data Template | 22 02 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 A000000041010

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

4.5.2 Contact: Application Tag data, AID A0000000041010

| 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 |
| - A | A self-self-self-self-self-self-self-self- | 14 83 59 49 00 0F 54 13 33 00 89 09 91 30 |
| 5A | Application Primary Account Number (PAN) | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 30 35 20 20 20 20 20 - 'USA DEBIT/Test Card 05' |
| EE 24 | Application Expiration Data | 20 20 - USA DEBIT/Test Card 05 |
| 5F 24 5F 25 | Application Expiration Date | xx xx xx * |
| | Application Effective Date | 08 40 - USA |
| 5F 28 5F 2D | Issuer Country Code | 65 6E - 'en' (English) |
| | Language Preference Service Code | 02 01 |
| 5F 30 | | 11 |
| 5F 34 | Application PAN Sequence Number | |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - 'US' 18 00 |
| 82 | Application Interchange Profile | BYTE 1: |
| | | b7 - Offline SDA NOT supported |
| | | b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported 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 | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| | - / | 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 |
| | | 9F 7C 14 |
| 8D | Card Risk Management Data Object List 2 (CDOL2) | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |



| Security | _ | I = 1 | |
|---|-------|--|-------------------------------------|
| List | | | |
| Application File Locator (AFL) | 8E | · · · | |
| Application File Locator (AFL) | | | |
| PF 07 | | | |
| SYTE | | · · · | |
| B8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b6 - Domestic goods valid b6 - Domestic goods valid b6 - Domestic services valid b1 - Domestic services valid b2 - International goods valid b1 - Domestic services valid b2 - ATIMs valid b1 - Terminals other than ATIMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashba | 9F 07 | Application Usage Control | |
| D7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b6 - 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 b7 | | | |
| b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b5 - International goods valid b6 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid | | | |
| D5 - International goods valid bd - Domestic services valid bd - Ambert Services valid bd - International cashback allowed bd - Domestic cashback a | | | |
| D3 - International services valid b2 - ATMs valid BYTE 2: b8 - Domestic cashback allowed BYT - International Cash Byt average BYT - International Cash | | | |
| b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cash back allowed b7 | | | |
| b1-Terminals other than ATMs valid BYTE 2: B8 - Domestic cashback allowed b7 - International colo 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | | |
| BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b8 0 | | | |
| Be | | | |
| B7 - International cashback allowed 9F 0D Issuer Action Code - Default B0 50 9C 88 00 | | | |
| 9F 08 | | | |
| SP 0D | 9F 08 | Application Version Number | |
| 9F 0E Issuer Action Code - Denial 00 00 00 00 00 00 00 00 00 | | | B0 50 9C 88 00 |
| 9F 0F Issuer Action Code - Online B0 70 9C 98 00 | | | 00 00 00 00 00 |
| 9F 10 | | | B0 70 9C 98 00 |
| Advance | | | xx xx A0 xx xx xx xx xx xx xx xx |
| 9F 11 Issuer Code Table Index 91 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 Ocunter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx x | | | xx xx xx xx xx xx * |
| PF 12 | 9F 11 | | 01 |
| Section Sect | - | | 4D 61 73 74 65 72 63 61 72 64 20 44 |
| 9F 17 | 0 | 7 199 1100 1101 1101 1101 1101 1101 1101 | 65 62 69 74 - 'Mastercard Debit' |
| Personal Identification Number (PIN) | 9F 14 | Counter 1 Lower Limit [Mastercard] | 00 |
| Try Counter 9F 23 | 9F 17 | | 03 |
| SP 26 | | , , | |
| SP 26 | 9F 23 | | 00 |
| 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx x xx * 9F 42 Application Currency Code 08 | 9F 26 | | xx xx xx xx xx xx xx * |
| PF 36 | 9F 27 | | 80 |
| 9F 42 Application Currency Code 08 | 9F 36 | | xx xx * |
| 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 21 03 9F 7C 14 9F 6E Third Party Data [Mastercard] 08 40 00 00 30 30 00 00 00 30 30 00 9F 7E Application Life Cycle Data [Mastercard] 04 10 08 14 00 01 00 00 00 00 00 00 00 00 00 00 00 | | | 08 40 - USD |
| 9F 4F | 9F 4D | | OB OA |
| 9F 6E | 9F 4F | 9 , | 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F |
| 9F 6E Third Party Data [Mastercard] | | 3 | 36 02 9F 52 06 DF 3E 01 9F 21 03 9F |
| 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 50 17 79 00 00 00 00 00 00 00 00 00 00 00 00 00 | | | |
| A0 | | | |
| C3 | 9F 7E | Application Life Cycle Data [Mastercard] | |
| Card Issuer Action Code (Contact) - Decline [M/Chip Advance] | | | |
| C3 Card Issuer Action Code (Contact) - Decline [M/Chip Advance] C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] C6 PIN Try Limit [M/Chip Advance] C7 CDOL1 Related Data Length [Mastercard] C8 CRM Country Code [Mastercard] C9 Accumulator 1 Currency Code [Mastercard] CA Accumulator 1 Lower Limit [Mastercard] CB Accumulator 1 Upper Limit [Mastercard] CD Card Issuer Action Code (Contactless) - O0 00 00 00 00 O0 00 00 OO 00 00 | | | |
| Decline [M/Chip Advance] | C3 | Card Issuer Action Code (Contact) - | |
| 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 [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 08 40 - USD [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - 00 58 00 | | | |
| Default [M/Chip Advance] | C4 | | 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 [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - 00 58 00 | | | |
| Online [M/Chip Advance] 03 | C5 | | 06 FB 00 |
| C6 PIN Try Limit [M/Chip Advance] 03 C7 CDOL1 Related Data Length [Mastercard] 42 [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 08 40 - USD [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - 00 58 00 | | | |
| C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 08 40 - USD [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - 00 58 00 | C6 | | 03 |
| [Mastercard] C8 | | | 42 |
| C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 08 40 - USD [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - 00 58 00 | _ | | |
| C9 Accumulator 1 Currency Code [Mastercard] 08 40 - USD CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - 00 58 00 | C8 | | 08 40 - USA |
| [Mastercard] CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - 00 58 00 | | | |
| CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - 00 58 00 | | | |
| CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - 00 58 00 | CA | | 00 00 00 00 00 00 |
| CD Card Issuer Action Code (Contactless) - 00 58 00 | | | |
| | | | 00 58 00 |
| | | | |



| Tag | Element name | Da | ta | | | | | | | | | ٧ | 4.0 |
|----------------|--|----|-----|-----|-----|----------|-----|------|------|------|------|------|------|
| CE | Card Issuer Action Code (Contactless) - | | F8 | 00 | | | | | | | | | |
| | Online [M/Chip Advance] | | | | | | | | | | | | |
| CF | Card Issuer Action Code (Contactless) - | 08 | 00 | 00 | | | | | | | | | |
| | Decline [M/Chip Advance] | | | | | | | | | | | | |
| D1 | Accumulator 1 Currency Conversion | 08 | 40 | 00 | 00 | 00 | 08 | 40 | 00 | 00 | 00 | 08 | 40 |
| | Table [Mastercard] | | 00 | 00 | 80 | 40 | 00 | 00 | 00 | 80 | 40 | 00 | 00 |
| | | 00 | | | | | | | | | | | |
| D3 | Additional Check Table [Mastercard] | | | | | FF FF | | F.F. | F.F. | F.F. | F.F. | F.F. | F.F. |
| D5 | Application Control [M/Chip Advance] | | | | | C6 | | | | | | | |
| D6 | Default ARPC Response Code [M/Chip | 00 | | | | | | | | | | | |
| D0 | Advance] | | | | | | | | | | | | |
| D7 | Application Control [M/Chip Advance] | 00 | 00 | 80 | 00 | E6 | 02 | | | | | | |
| D9 | Application File Locator (Contactless) | 08 | | 03 | | | | | | | | | |
| DE | Log Data Table [M/Chip Advance] | 00 | | | 00 | 00 | 00 | 00 | 00 | 00 | | | |
| DF 02 | Security Limits Status (Contact) [M/Chip | 00 | | | | | | | | | | | |
| D1 02 | Advance] | | | | | | | | | | | | |
| DF 11 | Accumulator 1 Control (Contact) | C1 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 12 | Accumulator 1 Control (Contactless) | C1 | | | | | | | | | | | |
| '- | [M/Chip Advance] | | | | | | | | | | | | |
| DF 14 | Accumulator 2 Control (Contact) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 15 | Accumulator 2 Control (Contactless) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 16 | Accumulator 2 Currency Code | 08 | 40 | - U | SD | | | | | | | | |
| | [Mastercard] | | | | | | | | | | | | |
| DF 17 | Accumulator 2 Currency Conversion | 08 | 40 | 00 | 00 | 00 | 08 | 40 | 00 | 00 | 00 | 08 | 40 |
| | Table [Mastercard] | | 00 | 00 | 80 | 40 | 00 | 00 | 00 | 80 | 40 | 00 | 00 |
| | | 00 | | | | | | | | | | | |
| DF 18 | Accumulator 2 Lower Limit [Mastercard] | 00 | | | | 00 | | | | | | | |
| DF 19 | Accumulator 2 Upper Limit [Mastercard] | | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DF 1A | Counter 1 Control (Contact) [M/Chip | C1 | | | | | | | | | | | |
| DE 40 | Advance] | 01 | | | | | | | | | | | |
| DF 1B | Counter 1 Control (Contactless) [M/Chip | C1 | | | | | | | | | | | |
| DE 4D | Advance] | 00 | | | | | | | | | | | |
| DF 1D | Counter 2 Control (Contact) [M/Chip | 00 | | | | | | | | | | | |
| DF 1E | Advance] | 00 | | | | | | | | | | | |
| DFIE | Counter 2 Control (Contactless) [M/Chip | 00 | | | | | | | | | | | |
| DF 1F | Advance] Counter 2 Lower Limit [Mastercard] | 00 | | | | | | | | | | | |
| DF 1F | Counter 2 Upper Limit [Mastercard] | 00 | | | | | | | | | | | |
| DF 21 | MTA CVM (Contact) [M/Chip Advance] | | 0.0 | 0.0 | იი | 00 | 0.0 | | | | | | |
| DF 23 | MTA CVM (Contactle IM/Chip Advance MTA CVM (Contactless) IM/Chip | | | | | 00 | | | | | | | |
| DI 23 | Advance] | | - 0 | - 0 | - 0 | - 0 | - 0 | | | | | | |
| DF 24 | MTA Currency Code [M/Chip Advance] | 08 | 40 | | | | | | | | | | |
| DF 25 | MTA NoCVM (Contact) [M/Chip | | | 00 | 00 | 00 | 00 | | | | | | |
| 2. 20 | Advance] | | - | - | - | - | - | | | | | | |
| DF 26 | MTA NoCVM (Contactless) [M/Chip | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| 0 | Advance] | | | | | | | | | | | | |
| DF 27 | Number Of Days Offline Limit [M/Chip | 00 | 00 | | | | | | | | | | |
| - · - · | Advance] | | | | | | | | | | | | |
| DF 28 | Accumulator 1 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| | (Contact) [M/Chip Advance] | | | | | | | | | | | | |
| DF 29 | Accumulator 1 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| | (Contactless) [M/Chip Advance] | | | | | | | | | | | | |
| DF 2A | Accumulator 2 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| | | | | | | | | | | | | | |



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

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

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

4.5.4 Contact: Application Tag data, AID A0000000042203

| 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' | S |
| 57 | Track 2 Equivalent Data | 54 13 33 00 89 09 91 30 D2 21 22 0 14 83 59 49 00 0F | 1 |
| 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 6 73 74 20 43 61 72 64 20 30 35 20 2 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 |
| 0.4 | Dadicated File (DF) Name | b7 - Is NOT Mobile phone A0 00 00 00 04 22 03 |
| 84 | Dedicated File (DF) Name | 02 |
| 87 8C | Application Priority Indicator | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| 0C | Card Risk Management Data Object List 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| | (CDOLI) | 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 |
| | | 9F 7C 14 |
| 8D | Card Risk Management Data Object List | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| | 2 (CDOL2) | |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 42 05 42 03 |
| | List | 1F 03 00 00 00 00 |
| 94 | Application File Locator (AFL) | 10 01 02 00 10 04 04 00 |
| 94 | Application File Locator (AFL) | 10 01 02 00 10 04 04 00 |
| 9F 07 | Application Usage Control | FF 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 | xx xx A0 xx |
| 0E 11 | Advance] | 01 |
| 9F 11 9F 12 | Issuer Code Table Index | 55 53 20 4D 61 65 63 74 72 6F 20 20 |
| 95 12 | Application Preferred Name | 20 20 20 - 'US Maestro' |
| 9F 14 | Counter 1 Lower Limit [Mastercard] | 00 |
| 9F 17 | Personal Identification Number (PIN) | 03 |
| | Try Counter | |
| 9F 23 | Counter 1 Upper Limit [Mastercard] | 00 |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 42 | Application Currency Code | 08 40 - USD |
| 9F 4D | Transaction Log Entry | 0B 0A |
| 9F 4F | Transaction Log Format | 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F |
| | - | 36 02 9F 52 06 DF 3E 01 9F 21 03 9F |
| 05.05 | Third Douby Data (Masters 1) | 7C 14 08 40 00 00 30 30 00 |
| 9F 6E | Third Party Data [Mastercard] | 00 40 00 00 30 30 00 |



| Tag | Element name | Da | ta | | | | | | | | | V | 4.0 |
|-------|---|-----|----------|-----|----|----|----|------|----|------|------|------------|------------|
| 9F 7E | Application Life Cycle Data [Mastercard] | | | 0в | 14 | 00 | 01 | 00 | 00 | 50 | 17 | 79 | |
| 01 7 | Application Life Cycle Data [Mastercara] | | | | | | 10 | | | | | 00 | 00 |
| | | 00 | 00 | 00 | 00 | 00 | 96 | 00 | 97 | 02 | 00 | 5 A | 5 A |
| | | 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) - | 06 | 50 | 00 | | | | | | | | | |
| 05 | Default [M/Chip Advance] | 06 | FB | 00 | | | | | | | | | |
| C5 | Card Issuer Action Code (Contact) - | 06 | гD | 00 | | | | | | | | | |
| | Online [M/Chip Advance] | 00 | | | | | | | | | | | |
| C6 | PIN Try Limit [M/Chip Advance] | 03 | | | | | | | | | | | |
| C7 | CDOL1 Related Data Length [Mastercard] | 42 | | | | | | | | | | | |
| C8 | CRM Country Code [Mastercard] | 08 | 40 | - U | SA | | | | | | | | |
| C9 | Accumulator 1 Currency Code [Mastercard] | 08 | 40 | - U | SD | | | | | | | | |
| CA | Accumulator 1 Lower Limit [Mastercard] | 00 | 00 | იი | იი | 00 | იი | | | | | | |
| | | | 00 | | | 00 | | | | | | | |
| CB | Accumulator 1 Upper Limit [Mastercard] | | 58 | | 00 | 00 | 00 | | | | | | |
| CD | Card Issuer Action Code (Contactless) - | ا ا | 28 | UU | | | | | | | | | |
| 05 | Default [M/Chip Advance] | ^ - | | | | | | | | | | | |
| CE | Card Issuer Action Code (Contactless) - | 06 | F8 | 00 | | | | | | | | | |
| | Online [M/Chip Advance] | | | | | | | | | | | | |
| CF | Card Issuer Action Code (Contactless) - | 08 | 00 | 00 | | | | | | | | | |
| | Decline [M/Chip Advance] | | | | | | | | | | | | |
| D1 | Accumulator 1 Currency Conversion | | | | | | 80 | | | | | | |
| | Table [Mastercard] | | 00 | 00 | 80 | 40 | 00 | 00 | 00 | 80 | 40 | 00 | 00 |
| | | 00 | | | | | | | | | | | |
| D3 | Additional Check Table [Mastercard] | 00 | 00 FF | 00 | | FF | | F.F. | FF | F.F. | F.F. | F.F. | F.F. |
| D5 | Application Control [M/Chip Advance] | | 00 | | | | | | | | | | |
| D6 | Default ARPC Response Code [M/Chip | | 10 | | | | | | | | | | |
| DO | Advance] | | | | | | | | | | | | |
| D7 | Application Control [M/Chip Advance] | 00 | 00 | 80 | ٥٥ | F6 | 02 | | | | | | |
| | | | | | | | 04 | 0.4 | ٥٥ | | | | |
| D9 | Application File Locator (Contactless) | | | | | | 00 | | | 00 | | | |
| DE | Log Data Table [M/Chip Advance] | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | | |
| DF 02 | Security Limits Status (Contact) [M/Chip Advance] | 00 | | | | | | | | | | | |
| DF 11 | Accumulator 1 Control (Contact) [M/Chip Advance] | C1 | | | | | | | | | | | |
| DF 12 | Accumulator 1 Control (Contactless) [M/Chip Advance] | C1 | | | | | | | | | | | |
| DF 14 | Accumulator 2 Control (Contact) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 15 | Accumulator 2 Control (Contactless) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 16 | Accumulator 2 Currency Code | 08 | 40 | - U | SD | | | | | | | | |
| | [Mastercard] | | | | | | | | | | | | |
| DF 17 | Accumulator 2 Currency Conversion | | | | | | 08 | | | | | | |
| | Table [Mastercard] | | 00 | 00 | 80 | 40 | 00 | 00 | 00 | 80 | 40 | 00 | 00 |
| DE (2 | A late O l | 00 | 00 | 00 | 00 | | 00 | | | | | | |
| DF 18 | Accumulator 2 Lower Limit [Mastercard] | 00 | | 00 | | | | | | | | | |
| DF 19 | Accumulator 2 Upper Limit [Mastercard] | 00 | υO | 00 | υO | 00 | υO | | | | | | |
| 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 | 00 | | | | | | | | | | | |
| טו וט | Advance] | | | | | | | | | | | | |



| Tag | Element name | Data v4.0 |
|-------|--|-------------------|
| DF 1E | Counter 2 Control (Contactless) [M/Chip | 00 |
| | Advance] | |
| DF 1F | Counter 2 Lower Limit [Mastercard] | 00 |
| DF 21 | Counter 2 Upper Limit [Mastercard] | 00 |
| DF 22 | MTA CVM (Contact) [M/Chip Advance] | 00 00 00 00 00 00 |
| DF 23 | MTA CVM (Contactless) [M/Chip | 00 00 00 00 00 |
| | Advance] | |
| DF 24 | MTA Currency Code [M/Chip Advance] | 08 40 - USD |
| DF 25 | MTA NoCVM (Contact) [M/Chip | 00 00 00 00 00 |
| | Advance] | |
| DF 26 | MTA NoCVM (Contactless) [M/Chip | 00 00 00 00 00 |
| | Advance] | |
| DF 27 | Number Of Days Offline Limit [M/Chip | 00 00 |
| DE 00 | Advance] | 00 00 00 |
| DF 28 | Accumulator 1 CVR Dependency Data | 00 00 00 |
| DF 29 | (Contact) [M/Chip Advance] Accumulator 1 CVR Dependency Data | 00 00 00 |
| DF 29 | (Contactless) [M/Chip Advance] | 00 00 00 |
| DF 2A | Accumulator 2 CVR Dependency Data | 00 00 00 |
| DI ZA | (Contact) [M/Chip Advance] | |
| DF 2B | Accumulator 2 CVR Dependency Data | 00 00 00 |
| 5. 25 | (Contactless) [M/Chip Advance] | |
| DF 2C | Counter 1 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 2D | Counter 1 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 2E | Counter 2 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 2F | Counter 2 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 30 | Interface Enabling Switch [M/Chip | 03 |
| DE 05 | Advance] | 00 |
| DF 35 | Security Limits Status (Contactless) | 00 |
| DF 37 | [M/Chip Advance] Security Limits Status Common [M/Chip | 00 |
| טר או | Advance] | |
| DF 3C | CVR Issuer Discretionary Data | 00 |
| 2. 00 | (Contact) [M/Chip Advance] | |
| DF 3D | CVR Issuer Discretionary Data | 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 3F | Read Record Filter (Contact) [M/Chip | 00 |
| | Advance] | |
| DF 40 | Read Record Filter (Contactless) | 10 01 01 00 |
| | [M/Chip Advance] | |
| DF 41 | DS Management Control [M/Chip | 20 |
| | Advance] | |

4.5.5 Contactless: CVM List - Mastercard debit, AID A0000000041010

| Cardho | Cardholder Verification Method List ('0205 5E03 0203 1F03 0000') | | | | | | |
|--------|--|----------------------------|----------|--|--|--|--|
| CVM | Verification Method | 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 A000000041010

| | | * 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 |
| 02 | Application interchange Frome | BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode supported b7 - Is NOT Mobile phone |
| 0.4 | Dadicated File (DF) Name | A0 00 00 00 04 10 10 |
| 84 | Dedicated File (DF) Name | 01 |
| 87 | Application Priority Indicator | |
| 8C | Card Risk Management Data Object List 1 (CDOL1) | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 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 | xx xx A0 xx xx xx xx xx xx xx xx |
| | Advance] | xx xx xx xx xx xx * |
| 9F 11 | Issuer Code Table Index | 01 |
| | | 1 |



| 9F 12 Application Preferred Name | Tag | Element name | Da | ta | | | | | | | | | V | 4.0 |
|--|-------|--|-----|----|-----|-----|----|----|-----|-----|-----|-----|------------|-----|
| 9F 14 Counter 1 Lower Limit [Mastercard] 90 97 17 Personal Identification Number (PIN) 17 Counter 97 23 Counter 1 Upper Limit [Mastercard] 90 97 26 Application Cryptogram (AC) 28 28 28 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20 | | | | | 73 | 74 | 65 | 72 | 63 | 61 | 72 | 64 | | |
| 9F 14 Counter 1 Lower Limit [Mastercard] O0 | 31 12 | Application i referred Name | | | | | | | | | | | | |
| Personal Identification Number (PIN) Try Counter | 9F 14 | Counter 1 Lower Limit [Mastercard] | | | | | | | | | | | | |
| Try Counter 1 | | | 03 | | | | | | | | | | | |
| Security Security | | | | | | | | | | | | | | |
| 9F 27 Cryptogram Information Data (CID) 80 | 9F 23 | Counter 1 Upper Limit [Mastercard] | 00 | | | | | | | | | | | |
| 9F 36 | 9F 26 | Application Cryptogram (AC) | хx | хх | хx | ХX | хx | хx | хх | хх | * | | | |
| 9F 42 Application Currency Code 98 40 - USD 9F 4A Static Data Authentication Tag List 82 9F 4D Transaction Log Entry 08 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 7C 14 9F 4F Transaction Log Format 9F 27 01 9F 02 06 0F 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 08 14 00 01 00 00 50 17 79 00 A0 00 00 00 00 00 00 00 00 00 00 00 | 9F 27 | Cryptogram Information Data (CID) | 80 | | | | | | | | | | | |
| 9F 4A Static Data Authentication Tag List 9F 4D Transaction Log Entry 08 | 9F 36 | Application Transaction Counter (ATC) | хx | хх | * | | | | | | | | | |
| 9F 4D | 9F 42 | | 08 | 40 | - U | SD | | | | | | | | |
| Fig. | 9F 4A | Static Data Authentication Tag List | 82 | | | | | | | | | | | |
| Severity Limits Severity L | 9F 4D | Transaction Log Entry | | - | | | | | | | | | | |
| PF 6E | 9F 4F | Transaction Log Format | | | | | | | | | | | | |
| 9F 6E | | | | | 9F | 52 | 06 | DF | 3E | 01 | 9F | 21 | 03 | 9F |
| PF 7E | 05.65 | Third Barty Data [Mastercard] | | | 00 | 00 | 30 | 30 | 00 | | | | | |
| A0 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 00 00 | | | | | | | | | | 00 | 50 | 17 | 79 | 00 |
| C3 | 9176 | Application Life Cycle Data [Mastercard] | | | | | | | | | | | - | |
| C3 | | | 00 | 00 | 00 | 00 | 00 | 96 | 00 | 97 | 02 | 00 | 5 A | 5A |
| Decline [M/Chip Advance] | | | | | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 06 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 06 FB 00 C6 PIN Try Limit [M/Chip Advance] 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 [Mastercard] CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 05 80 00 00 00 00 00 00 00 00 00 00 00 00 | C3 | · · · · · · · · · · · · · · · · · · · | 00 | 00 | 00 | | | | | | | | | |
| Default [M/Chip Advance] | | | | | | | | | | | | | | |
| C5 | C4 | , | 06 | 50 | 00 | | | | | | | | | |
| Online [M/Chip Advance] O3 | | | | | | | | | | | | | | |
| C6 | C5 | | 06 | FB | 00 | | | | | | | | | |
| C7 | -00 | | 0.2 | | | | | | | | | | | |
| [Mastercard] | | | | | | | | | | | | | | |
| C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 08 40 - USD [Mastercard] 00 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 00 58 00 CE 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 00 00 00 00 00 00 00 00 | C7 | | 42 | | | | | | | | | | | |
| C9 | Co | • | 00 | 40 | | C 1 | | | | | | | | |
| [Mastercard] CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - Default [M/Chip Advance] CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 00 00 | | | | | | | | | | | | | | |
| CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 F8 00 00 00 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 08 00 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 08 40 00 00 00 00 00 00 00 00 00 00 00 00 | Ca | | 08 | 40 | - 0 | 30 | | | | | | | | |
| CB Accumulator 1 Upper Limit [Mastercard] 00 | CA | | 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 00 00 00 00 00 00 00 00 00 | | | | | | | | | | | | | | |
| 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 00 00 00 00 00 00 00 00 00 | | | | | | | | | | | | | | |
| Online [M/Chip Advance] | CE | | 06 | F8 | 00 | | | | | | | | | |
| CF | | | | | | | | | | | | | | |
| D1 | CF | | 08 | 00 | 00 | | | | | | | | | |
| Table [Mastercard] | | Decline [M/Chip Advance] | | | | | | | | | | | | |
| D3 Additional Check Table [Mastercard] D5 Application Control [M/Chip Advance] D6 Default ARPC Response Code [M/Chip Advance] D7 Application Control [M/Chip Advance] D8 O0 00 80 00 C6 02 D9 O0 10 Advance] D7 Application Control [M/Chip Advance] D8 O0 00 80 00 E6 02 D8 O0 00 80 00 E6 02 | D1 | | | | | | | | | | | | | |
| D3 Additional Check Table [Mastercard] D5 Application Control [M/Chip Advance] D6 Default ARPC Response Code [M/Chip Advance] D7 Application Control [M/Chip Advance] D7 Security Limits Status (Contact) [M/Chip O0 | | Table [Mastercard] | | 00 | 00 | 80 | 40 | 00 | 00 | 00 | 80 | 40 | 00 | 00 |
| D5 Application Control [M/Chip Advance] 80 00 80 00 C6 02 D6 Default ARPC Response Code [M/Chip Advance] D7 Application Control [M/Chip Advance] 00 00 80 00 E6 02 DF 02 Security Limits Status (Contact) [M/Chip 00 | D2 | Additional Chapter Table [Masterser-1] | | ٥٥ | 00 | pr | FF | FF | FF | FF | ㅁㅁ | FF | FF | ਧਾ |
| 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 00 | טט | Additional Check Table [Mastercard] | | | | | | | E E | e e | E E | E E | E E | E E |
| D6 Default ARPC Response Code [M/Chip Advance] D7 Application Control [M/Chip Advance] DF 02 Security Limits Status (Contact) [M/Chip 00 | D5 | Application Control [M/Chip Advance] | | | | | | | | | | | | |
| Advance] D7 Application Control [M/Chip Advance] DF 02 Security Limits Status (Contact) [M/Chip 00 00 80 00 E6 02 | | | 00 | 10 | | | | | | | | | | |
| D7 Application Control [M/Chip Advance] 00 00 80 00 E6 02 DF 02 Security Limits Status (Contact) [M/Chip 00 | = = | | | | | | | | | | | | | |
| DF 02 Security Limits Status (Contact) [M/Chip 00 | D7 | | 00 | 00 | 80 | 00 | E6 | 02 | | | | | | |
| , | | | 00 | | | | | | | | | | | |
| | | ` , | | | | | | | | | | | | |



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

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

4.5.8 Contactless: Application Tag data, AID A0000000042203

| 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 |
| | Application Laber | MAESTRO' |
| 57 | Track 2 Equivalent Data | 54 13 33 00 89 09 91 30 D2 21 22 01 |
| | | 14 83 59 49 00 OF |
| 5A | Application Primary Account Number | 54 13 33 00 89 09 91 30 |
| | (PAN) | |
| 5F 24 | Application Expiration Date | 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 | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| | | 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 |
| 0.0 | Cond Dialy Management Data Chica thirt | 9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| 8D | Card Risk Management Data Object List | 91 UA OA UZ 95 U5 9F 37 U4 9F 4C U8 |
| 0.5 | 2 (CDOL2) | 00 00 00 00 00 00 00 00 00 00 |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 |
| | List | |
| 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 CO |
| 0. 0. | ppa | 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 | xx xx A0 xx xx xx xx xx xx xx xx |
| | Advance] | xx xx xx xx xx xx * |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 12 | Application Preferred Name | 55 53 20 4D 61 65 73 74 72 6F 20 20 |
| 05.44 | 0 | 20 20 20 20 - 'US Maestro' |
| 9F 14 | Counter 1 Lower Limit [Mastercard] | 00 |
| 9F 17 | Personal Identification Number (PIN) | 03 |
| 05.00 | Try Counter | |
| 9F 23 | Counter 1 Upper Limit [Mastercard] | 00 |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 42 | Application Currency Code | 08 40 - USD |
| 9F 4A | Static Data Authentication Tag List | 82 |
| 9F 4D | Transaction Log Entry | OB OA |
| 9F 4F | Transaction Log Format | 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F |
| | | 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 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 |
| 9176 | Application Life Cycle Data [Mastercard] | AO 00 00 00 04 10 10 00 00 00 00 00 |
| | | 00 00 00 00 00 96 00 97 02 00 5A 5A |
| | | 00 00 00 00 00 00 00 00 00 00 00 |
| C3 | Card Issuer Action Code (Contact) - | 00 00 00 |
| | Decline [M/Chip Advance] | |
| C4 | Card Issuer Action Code (Contact) - | 06 50 00 |
| | Default [M/Chip Advance] | |
| C5 | Card Issuer Action Code (Contact) - | 06 FB 00 |
| | Online [M/Chip Advance] | |
| C6 | PIN Try Limit [M/Chip Advance] | 03 |
| C7 | CDOL1 Related Data Length | 42 |
| | [Mastercard] | |
| C8 | CRM Country Code [Mastercard] | 08 40 - USA |
| C9 | Accumulator 1 Currency Code | 08 40 - USD |
| | [Mastercard] | |
| CA | Accumulator 1 Lower Limit [Mastercard] | 00 00 00 00 00 |
| СВ | Accumulator 1 Upper Limit [Mastercard] | 00 00 00 00 00 00 |
| CD | Card Issuer Action Code (Contactless) - | 06 58 00 |
| | Default [M/Chip Advance] | |
| CE | Card Issuer Action Code (Contactless) - | 06 F8 00 |
| | Online [M/Chip Advance] | |



| 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 00 00 00 00 00 00 00 00 00 |
| D3 | Additional Check Table [Mastercard] | 00 00 00 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 A000000043060D0561111

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

4.6.2 Contact: Application Tag data, AID A0000000043060D0561111

| Tag | Element name | Data | | | | | | | | | ٧ | 4.0 |
|-------|--|-------|-------|-------|-------|------|-----|------|------|------|------------|-----------------|
| 50 | Application Label | 4D 41 | 45 | 53 | 54 | 52 | 4F | 31 | - 'N | 1AES | STR | O1 ['] |
| 57 | Track 2 Equivalent Data | 67 99 | | | | | 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 | \ / | 55 53 | 11 | 20 | 11 | 65 | 62 | 60 | 71 | 2 12 | 5 / | 65 |
| 5F 20 | Cardholder Name | 73 74 | | | | | | | | | | |
| | | _ | | _ | - | | - | | | | 20 | 20 |
| | | 20 20 | - 'US | SA L | JEB | 11/1 | est | Card | d 06 | | | |
| 5F 24 | Application Expiration Date | 22 12 | 31 | | | | | | | | | |
| 5F 25 | Application Effective Date | xx xx | хх | * | | | | | | | | |
| 5F 28 | Issuer Country Code | 05 28 | - NL | .D | | | | | | | | |
| 5F 2D | Language Preference | 65 6E | - 'en | ı' (E | nglis | sh) | | | | | | |
| 5F 30 | Service Code | 02 20 | | | | | | | | | | |
| 5F 34 | Application PAN Sequence Number | 31 | | | | | | | | | | |



| Application Interchange Profile | Tag | Element name | Data v4.0 |
|--|--------|---|-------------------------------------|
| BYTE 1: | | | 11111 |
| B6 - Offline DDA NOT supported | | ,, | |
| B5 - Cardholder verification supported ba - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported b7 - Is NOT Mobile phone b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone b8 - Mag-stripe mode NOT supported b9 - S - S - Mag-stripe mode NOT supported b9 - S - S - Mag-stripe mode NOT supported b9 - S - S - Mag-stripe mode NOT supported b9 - S - S - Mag-stripe mode NOT supported b9 - S - S - S - Mag-stripe mode NOT supported b9 - S - S - S - Mag-stripe mode NOT supported b9 - S - S - S - S - S - S - S - S - S - | | | |
| 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: | | | |
| B3 - Issuer authentication NOT supported using External Authenticate command | | | |
| External Authenticate command D1 - Combined DDA / GEN AC NOT supported BYTE 2: B8 - Mag-stripe mode NOT supported b7 - S NOT Mobile phone D2 - S NOT Mobile phone D3 - S NOT Mobile phone | | | |
| BYTE 2: | | | |
| B8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone B7 - Is NOT | | | · · |
| B | | | - · · · |
| Application Priority Indicator Start Application Priority Indicator Start Application Priority Indicator Card Risk Management Data Object List 1 (CDOL1) Start 1 (CDOL2) Start 1 (CDOL2) | | | b8 - Mag-stripe mode NOT supported |
| 87 | 84 | Dedicated File (DF) Name | |
| SC | | i i | 01 |
| 1 (CDOL1) | | | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| ## 85 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 ## 8D | | | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| SD | | () | |
| 2 (CDOL2) 8E | 0.0 | Count Dialy Management Data Object List | |
| List | 8D | 2 (CDOL2) | |
| Application File Locator (AFL) | 8E | ` , | |
| 94 Application File Locator (AFL) | | | |
| PF 07 Application Usage Control PF C0 BYTE 1: b8 - Domestic cash transactions valid b6 - Domestic goods valid b6 - Domestic services valid b6 - Domestic services valid b3 - International services valid b1 - Terminals other than ATMs valid b2 - ATMs valid b1 - Terminals other than ATMs valid b2 - ATMs valid b1 - Terminals other than ATMs valid b2 - ATMs valid b2 - ATMs valid b2 - ATMs valid b2 - ATMs valid b3 - International cashback allowed b7 - I | | | |
| BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid b2 - ATMs valid b2 - ATMs valid b2 - ATMs valid b2 - ATMs valid b3 - International cashback allowed b7 - International cashback allowed b | | , , | |
| B8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b3 - International 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 cas | 9F 07 | Application Usage Control | |
| b7 - Int'l cash transactions valid | | | |
| b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b2 - ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b2 - ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b2 - ATMs valid b1 - Terminals other than ATMs valid b1 | | | |
| b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b2 - ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b7 - International cashback allowed b7 | | | b6 - Domestic goods valid |
| b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Inte | | | |
| b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - In | | | |
| b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b8 00 0 00 00 00 00 00 00 00 00 00 00 00 | | | |
| D8 - Domestic cashback allowed b7 - International cashback allowed 9F 0A Application Selection Registered Proprietary Data D8 O9 O1 O1 O1 O1 O1 O1 O1 | | | |
| B7 - International cashback allowed | | | BYTE 2: |
| 9F 08 Application Version Number 00 02 9F 0A Application Selection Registered Proprietary Data 00 01 01 01 9F 0D Issuer Action Code - Default B0 50 BC 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx xx A0 xx | | | |
| 9F 0A Poplication 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 | 0E 00 | Application Varsian Number | |
| Proprietary Data Proprietary Data Proprietary Data Susur Action Code - Default B0 50 BC 88 00 | | | |
| 9F 0D Issuer Action Code - Default B0 50 BC 88 00 9F 0E Issuer Action Code - Online 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 | JI⁻ UA | | |
| Section Code - Denial 00 00 00 00 00 00 00 00 00 | 9F 0D | | B0 50 BC 88 00 |
| 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx | | | |
| 9F 10 Issuer Application Data [M/Chip Advance] xx | | | B0 70 BC 98 00 |
| Advance | | | xx xx A0 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 20 20 20 20 20 20 | | | xx xx xx xx xx xx * |
| 20 20 20 - 'Maestro1' 9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 17 Personal Identification Number (PIN) Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx x | 9F 11 | Issuer Code Table Index | |
| 20 20 20 - 'Maestro1' | 9F 12 | Application Preferred Name | |
| 9F 17 Personal Identification Number (PIN) Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) 9F 42 Application Currency Code 9F 4D Transaction Log Entry 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F | | | |
| Try Counter 9F 23 | | | |
| 9F 23 Counter 1 Upper Limit [Mastercard] 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) 9F 42 Application Currency Code 9F 4D Transaction Log Entry 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F | 9F 17 | | 09 |
| 9F 26 Application Cryptogram (AC) | 05.00 | | 00 |
| 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) 9F 42 Application Currency Code 9F 4D Transaction Log Entry 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F | | | |
| 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 | | | |
| 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 | | | |
| 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F | | | |
| 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F | | | |
| or in Transaction Logic office | | | |
| | 51 71 | Transaction Log Format | |
| 7C 14 | | | 7C 14 |



| Application Life Cycle Data [Mastercard] | Tag | Floment name | Da | ta | | | | | | | | | V | 4.0 |
|---|-------|---|----------|----|----|----------|----|----|------|------|------|------|------|------|
| A | Tag | Application Life Cycle Data [Mastercord] | | | ΛB | 14 | 00 | 01 | ٥٥ | ٥٥ | 50 | 17 | | |
| Card Issuer Action Code (Contact) - Decline [M/Chip Advance] | 9 | Application Life Cycle Data [Mastercard] | | | | | | | | | | | | |
| Card Issuer Action Code (Contact) - Decline [M/Chip Advance] Operating [M/Chip Advance] Operati | | | | | | | | | | | | | | |
| Decline [M/Chip Advance] | | | | | | | | | | | | | | 00 |
| Decline [M/Chip Advance] | C3 | Card Issuer Action Code (Contact) - | 00 | 00 | 00 | | | | | | | | | |
| Card Issuer Action Code (Contact) - Default [M/Chip Advance] | | | | | | | | | | | | | | |
| Default [M/Chip Advance] | C4 | | 7F | 50 | 00 | | | | | | | | | |
| Card Issuer Action Code (Contact) - Online [M/Chip Advance] | 0. | ` , | | | | | | | | | | | | |
| Online [M/Chip Advance] | C5 | | 3F | FB | 00 | | | | | | | | | |
| C6 | 00 | ` , | | | | | | | | | | | | |
| CODUL Related Data Length [Mastercard] CR CRM Country Code [Mastercard] CR CRM Country Code [Mastercard] CR CRM Country Code [Mastercard] CR Accumulator 1 Lower Limit [Mastercard] CR Card Issuer Action Code (Contactless) - Default [M/Chip Advance] CR Card Issuer Action Code (Contactless) - Default [M/Chip Advance] CR Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] CR Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] CR Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] DR Application Control [M/Chip Advance] DR Application File Locator (Contactless) DR Log Data Table [Mastercard] DR Accumulator 1 Control (Contact) [M/Chip Advance] DR 14 Accumulator 1 Control (Contact) [M/Chip Advance] DR 15 Accumulator 2 Currency Code [Mastercard] DR 16 Accumulator 2 Currency Code [Mastercard] DR 17 Accumulator 2 Currency Code [Mastercard] DR 18 Accumulator 2 Currency Conversion Table [Mastercard] DR 19 Accumulator 2 Currency Conversion Table [Mastercard] DR 10 Counter 1 Control (Contact) [M/Chip Advance] DR 11 Accumulator 2 Lower Limit [Mastercard] DR 12 Accumulator 2 Lower Limit [Mastercard] DR 14 Counter 1 Control (Contact) [M/Chip Advance] DR 15 Accumulator 2 Lower Limit [Mastercard] DR 16 Counter 1 Control (Contact) [M/Chip Advance] DR 17 Counter 1 Control (Contact) [M/Chip Advance] DR 18 Counter 1 Control (Contact) [M/Chip Advance] DR 19 Counter 2 Control (Contact) [M/Chip Advance] DR 10 Counter 2 Control (Contact) [M/Chip Advance] DR 10 Counter 2 Control (Contact) [M/Chip Advance] | C6 | | 09 | | | | | | | | | | | |
| Mastercard | | | | | | | | | | | | | | |
| CRM Country Code [Mastercard] | C1 | | | | | | | | | | | | | |
| C9 | Co | - | ΛE | 20 | N | <u> </u> | | | | | | | | |
| [Mastercard] | | | _ | | | | | | | | | | | |
| CA | C9 | | 09 | 18 | | UK | | | | | | | | |
| CB | O 4 | | 00 | ^^ | ^^ | 00 | 00 | ^^ | | | | | | |
| Color Card Issuer Action Code (Contactless) - Default M/Chip Advance Card Issuer Action Code (Contactless) - Online [M/Chip Advance] Card Issuer Action Code (Contactless) - Online [M/Chip Advance] Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] O0 00 00 00 00 00 00 00 00 00 00 00 00 | | | | | | | | | | | | | | |
| Default [M/Chip Advance] | | | | | | UU | UU | UU | | | | | | |
| Card Issuer Action Code (Contactless) - Online [M/Chip Advance] | CD | , | 00 | 00 | 00 | | | | | | | | | |
| Online M/Chip Advance Online Online M/Chip Advance Online Online M/Chip Advance Online On | | | | | | | | | | | | | | |
| Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] | CE | | 00 | 00 | 00 | | | | | | | | | |
| Decline [M/Chip Advance] | | | | | | | | | | | | | | |
| D1 | CF | , | 00 | 00 | 00 | | | | | | | | | |
| Table [Mastercard] | | Decline [M/Chip Advance] | | | | | | | | | | | | |
| National Check Table [Mastercard] | D1 | Accumulator 1 Currency Conversion | | | | | | | | | | | | |
| Additional Check Table [Mastercard] | | Table [Mastercard] | | 00 | 00 | 09 | 78 | 00 | 00 | 00 | 09 | 78 | 00 | 00 |
| FF FF FF FF FF FF FF FF FF FF FF FF | | A 1 101 1 T 1 1 T 1 1 T 1 1 T 1 1 T 1 1 T 1 1 T 1 1 T 1 1 T 1 1 T 1 1 T 1 1 T | | | | | | | | | | | | |
| D5 | D3 | Additional Check Table [Mastercard] | | | | | | | F.F. | F.F. | F.F. | F.F. | F.F. | F.F. |
| Default ARPC Response Code [M/Chip Advance] | DE | Application Central [M/Chip Advance] | | | | | | | | | | | | |
| D7 | | | | | | | | | | | | | | |
| D7 | Do | | | | | | | | | | | | | |
| D9 | D7 | | 00 | ٥٥ | 00 | ۸۸ | 00 | 00 | | | | | | |
| DE | | | 00 | | | | | - | | | | | | |
| DF 02 Security Limits Status (Contact) [M/Chip Advance] DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] DF 14 Accumulator 2 Control (Contact) [M/Chip Advance] DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] DF 16 Accumulator 2 Currency Code [Mastercard] DF 17 Accumulator 2 Currency Conversion Table [Mastercard] DF 18 Accumulator 2 Lower Limit [Mastercard] DF 19 Accumulator 2 Upper Limit [Mastercard] DF 19 Accumulator 2 Upper Limit [Mastercard] DF 10 Counter 1 Control (Contact) DF 10 Counter 1 Control (Contact) DF 10 Counter 2 Con | | 11 ' | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | | |
| Advance | | | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | | |
| DF 11 | DF 02 | | 00 | | | | | | | | | | | |
| [M/Chip Advance] 00 DF 12 Accumulator 1 Control (Contactless) 00 [M/Chip Advance] 00 DF 14 Accumulator 2 Control (Contact) 00 [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) 00 [M/Chip Advance] 09 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 [Mastercard] 00 00 00 00 09 99 DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 00 | 55.44 | - | | | | | | | | | | | | |
| DF 12 | DF 11 | ` , | CI | | | | | | | | | | | |
| [M/Chip Advance] | | | | | | | | | | | | | | |
| DF 14 | DF 12 | | 00 | | | | | | | | | | | |
| [M/Chip Advance] | | | <u> </u> | | | | | | | | | | | |
| DF 15 | DF 14 | | 00 | | | | | | | | | | | |
| [M/Chip Advance] | | | | | | | | | | | | | | |
| DF 16 [Mastercard] 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 | DF 15 | | 00 | | | | | | | | | | | |
| DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 00 00 09 99 00 00 00 09 99 00 00 | | | | | | | | | | | | | | |
| DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 00 00 09 99 00 00 00 00 09 99 00 00 | DF 16 | | 09 | 99 | | | | | | | | | | |
| Table [Mastercard] 00 00 00 09 99 00 00 09 99 00 00 DF 18 | | | | | | | | | | | | | | |
| DF 18 | DF 17 | • | | | | | | | | | | | | |
| DF 18 Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 | | Table [Mastercard] | | υ0 | 00 | 09 | 99 | υ0 | υ0 | υ0 | υ9 | 99 | υ0 | 00 |
| DF 19 Accumulator 2 Upper Limit [Mastercard] 00 00 00 00 00 00 DF 1A Counter 1 Control (Contact) [M/Chip Advance] DF 1B Counter 1 Control (Contactless) [M/Chip Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 | DE 40 | Accumulator O Lawrent insit FM - starte 17 | | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DF 1A Counter 1 Control (Contact) [M/Chip Advance] DF 1B Counter 1 Control (Contactless) [M/Chip Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 | | | | | | | | | | | | | | |
| Advance] DF 1B Counter 1 Control (Contactless) [M/Chip Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 | | | | UU | UU | UU | UU | UU | | | | | | |
| DF 1B Counter 1 Control (Contactless) [M/Chip Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 | DF 1A | ` , | C1 | | | | | | | | | | | |
| Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 | | | | | | | | | | | | | | |
| DF 1D Counter 2 Control (Contact) [M/Chip 00 | DF 1B | ` , | 00 | | | | | | | | | | | |
| 21 12 Country 2 Contact, (Contact,) [11,10111] | | | | | | | | | | | | | | |
| Advance] | DF 1D | | 00 | | | | | | | | | | | |
| | | Advance] | | | | | | | | | | | | |



| Tag | Element name | Data v4.0 |
|--------|--|-------------------|
| DF 1E | Counter 2 Control (Contactless) [M/Chip | 00 |
| | Advance] | |
| DF 1F | Counter 2 Lower Limit [Mastercard] | 00 |
| DF 21 | Counter 2 Upper Limit [Mastercard] | 00 |
| DF 22 | MTA CVM (Contact) [M/Chip Advance] | 00 00 00 00 00 00 |
| DF 23 | MTA CVM (Contactless) [M/Chip | 00 00 00 00 00 |
| | Advance] | |
| DF 24 | MTA Currency Code [M/Chip Advance] | 09 78 - EUR |
| DF 25 | MTA NoCVM (Contact) [M/Chip | 00 00 00 00 00 |
| | Advance] | |
| DF 26 | MTA NoCVM (Contactless) [M/Chip | 00 00 00 00 00 |
| | Advance] | |
| DF 27 | Number Of Days Offline Limit [M/Chip | 00 00 |
| DE 00 | Advance] | 00 00 00 |
| DF 28 | Accumulator 1 CVR Dependency Data | 00 00 00 |
| DF 29 | (Contact) [M/Chip Advance] Accumulator 1 CVR Dependency Data | 00 00 00 |
| DF 29 | (Contactless) [M/Chip Advance] | 00 00 00 |
| DF 2A | Accumulator 2 CVR Dependency Data | 00 00 00 |
| טו אַר | (Contact) [M/Chip Advance] | |
| DF 2B | Accumulator 2 CVR Dependency Data | 00 00 00 |
| J. 25 | (Contactless) [M/Chip Advance] | |
| DF 2C | Counter 1 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 2D | Counter 1 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 2E | Counter 2 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 2F | Counter 2 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 30 | Interface Enabling Switch [M/Chip | 01 |
| DE 05 | Advance] | 00 |
| DF 35 | Security Limits Status (Contactless) | 00 |
| DF 37 | [M/Chip Advance] Security Limits Status Common [M/Chip | 00 |
| DF 31 | Advance] | |
| DF 3C | CVR Issuer Discretionary Data | 00 |
| Di 00 | (Contact) [M/Chip Advance] | |
| DF 3D | CVR Issuer Discretionary Data | 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 3F | Read Record Filter (Contact) [M/Chip | 00 |
| | Advance] | |
| DF 40 | Read Record Filter (Contactless) | 00 |
| | [M/Chip Advance] | |
| DF 41 | DS Management Control [M/Chip | 20 |
| | Advance] | |

4.6.3 Contact: CVM List - Maestro Debit, AID A000000043060D0562222

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



4.6.4 Contact: Application Tag data, AID A000000043060D0562222

| | | * 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 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 | 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 |
| <u> </u> | 1.11.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1 | |



| T | Florestone | Data |
|----------|--|---|
| Tag | Element name | Data v4.0 |
| 9F 10 | Issuer Application Data [M/Chip | xx xx A0 xx |
| 05.44 | Advance] | |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 12 | Application Preferred Name | 4D 61 65 73 74 72 6F 32 20 20 20 20 |
| 05.44 | On the Aller and See St Blander and B | 20 20 20 - 'Maestro2' |
| 9F 14 | Counter 1 Lower Limit [Mastercard] | 00 |
| 9F 17 | Personal Identification Number (PIN) | 03 |
| 05.00 | Try Counter | 00 |
| 9F 23 | Counter 1 Upper Limit [Mastercard] | 00 |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 42 | Application Currency Code | 09 78 - EUR |
| 9F 4D | Transaction Log Entry | OB OA |
| 9F 4F | Transaction Log Format | 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F |
| | | 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14 |
| 9F 7E | Application Life Cycle Data [Mastercard] | 04 10 0B 14 00 01 00 00 50 17 79 00 |
| 9 7 1 | Application Life Cycle Data [Mastercard] | AO 00 00 00 04 30 60 17 10 13 00 00 |
| | | 00 00 00 00 00 80 00 88 01 06 A5 5A |
| | | 00 00 00 00 00 00 00 00 00 00 00 00 |
| C3 | Card Issuer Action Code (Contact) - | 00 00 00 |
| | Decline [M/Chip Advance] | |
| C4 | Card Issuer Action Code (Contact) - | 7F 50 00 |
| | Default [M/Chip Advance] | |
| C5 | Card Issuer Action Code (Contact) - | 3F FB 00 |
| | Online [M/Chip Advance] | |
| C6 | PIN Try Limit [M/Chip Advance] | 03 |
| C7 | CDOL1 Related Data Length | 42 |
| | [Mastercard] | |
| C8 | CRM Country Code [Mastercard] | 05 28 - NLD |
| C9 | Accumulator 1 Currency Code | 09 78 - EUR |
| | [Mastercard] | |
| CA | Accumulator 1 Lower Limit [Mastercard] | 00 00 00 00 00 00 |
| CB | Accumulator 1 Upper Limit [Mastercard] | 00 00 00 00 00 00 |
| CD | Card Issuer Action Code (Contactless) - | 00 00 00 |
| | Default [M/Chip Advance] | |
| CE | Card Issuer Action Code (Contactless) - | 00 00 00 |
| | Online [M/Chip Advance] | |
| CF | Card Issuer Action Code (Contactless) - | 00 00 00 |
| | Decline [M/Chip Advance] | |
| D1 | Accumulator 1 Currency Conversion | 09 78 00 00 00 09 78 00 00 00 09 78 |
| | Table [Mastercard] | 00 00 00 09 78 00 00 00 09 78 00 00 |
| D0 | A LEG LOL L Talla FM (1) | 00 |
| D3 | Additional Check Table [Mastercard] | 00 00 00 FF F |
| D5 | Application Control [M/Chip Advance] | 86 00 80 00 C6 02 |
| D6 | Default ARPC Response Code [M/Chip | 00 10 |
| | Advance] | |
| D7 | Application Control [M/Chip Advance] | 00 00 00 00 00 00 |
| D9 | Application File Locator (Contactless) | |
| DE | Log Data Table [M/Chip Advance] | 00 00 00 00 00 00 00 00 |
| DF 02 | Security Limits Status (Contact) [M/Chip | 00 |
| DF 02 | Advance] | |
| DF 11 | Accumulator 1 Control (Contact) | C1 |
| ן טר וו | [M/Chip Advance] | - 5- |
| DF 12 | Accumulator 1 Control (Contactless) | 00 |
| | [M/Chip Advance] | |
| | [w/onip Advance] | |



| Fig. Content Control (Contact) MChip Advance MTA CVM (Contactless) [M/Chip Advance MTA MCVM | Т | Floresatus | Dete |
|--|-------|---|-------------------|
| M/Chip Advance 00 | Tag | Element name | |
| MChip Advance | DF 14 | | |
| DF 16 | DF 15 | | 00 |
| DF 17 | DF 16 | Accumulator 2 Currency Code | 09 99 |
| Table [Mastercard] | DF 17 | | |
| DF 18 | | | |
| DF 19 Accumulator 2 Upper Limit [Mastercard] | DF 18 | Accumulator 2 Lower Limit [Mastercard] | |
| DF 1A Counter 1 Control (Contact) [M/Chip Advance] | | | |
| DF 1B | | Counter 1 Control (Contact) [M/Chip | C1 |
| Advance | DF 1B | Counter 1 Control (Contactless) [M/Chip | 00 |
| DF 1E | DF 1D | | 00 |
| DF 1F Counter 2 Lower Limit [Mastercard] OF | DF 1E | Counter 2 Control (Contactless) [M/Chip | 00 |
| DF 21 Counter 2 Upper Limit [Mastercard] O0 | DF 1F | | 00 |
| DF 22 MTA CVM (Contact) [M/Chip Advance] | | | 00 |
| Advance | DF 22 | | 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 00 DF 26 MTA NoCVM (Contactless) [M/Chip Advance] 00 00 00 00 00 00 00 DF 27 Mumber Of Days Offline Limit [M/Chip Advance] 00 00 00 00 DF 28 Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] 00 00 00 DF 29 Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 DF 2A Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 DF 2C Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 DF 2E Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] 00 00 00 DF 30 Interface Enabling Switch [M/Chip Advance] 01 00 00 00 DF 35 Security Limits Status (Contactless) [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 00 | DF 23 | | 00 00 00 00 00 00 |
| DF 25 MTA NoCVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 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 24 | | 09 78 - EUR |
| DF 26 | | MTA NoCVM (Contact) [M/Chip | 00 00 00 00 00 |
| DF 27 | DF 26 | MTA NoCVM (Contactless) [M/Chip | 00 00 00 00 00 |
| DF 28 | DF 27 | Number Of Days Offline Limit [M/Chip | 00 00 |
| DF 29 | DF 28 | Accumulator 1 CVR Dependency Data | 00 00 00 |
| DF 2A Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2B Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2D Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 3D Interface Enabling Switch [M/Chip Advance] DF 35 Security Limits Status (Contactless) [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 38 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 39 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] | DF 29 | Accumulator 1 CVR Dependency Data | 00 00 00 |
| DF 2B | DF 2A | Accumulator 2 CVR Dependency Data | 00 00 00 |
| DF 2C Counter 1 CVR Dependency Data (Contact) [M/Chip Advance] DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance] DF 35 Security Limits Status (Contactless) [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 38 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 39 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 30 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] | DF 2B | Accumulator 2 CVR Dependency Data | 00 00 00 |
| DF 2D Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance] DF 2E Counter 2 CVR Dependency Data (Contact) [M/Chip Advance] DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance] DF 35 Security Limits Status (Contactless) [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 36 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 37 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 37 CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 30 CVR Issuer Discretionary Data | DF 2C | Counter 1 CVR Dependency Data | 00 00 00 |
| DF 2E | DF 2D | Counter 1 CVR Dependency Data | 00 00 00 |
| DF 2F Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] DF 30 Interface Enabling Switch [M/Chip Advance] DF 35 Security Limits Status (Contactless) [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 3C CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3D CVR Issuer Discretionary Data 00 00 00 00 00 00 00 00 00 00 00 00 00 | DF 2E | Counter 2 CVR Dependency Data | 00 00 00 |
| DF 30 Interface Enabling Switch [M/Chip Advance] DF 35 Security Limits Status (Contactless) 00 [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 3C CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3D CVR Issuer Discretionary Data 00 | DF 2F | Counter 2 CVR Dependency Data | 00 00 00 |
| DF 35 Security Limits Status (Contactless) [M/Chip Advance] DF 37 Security Limits Status Common [M/Chip Advance] DF 3C CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3D CVR Issuer Discretionary Data 00 00 | DF 30 | Interface Enabling Switch [M/Chip | 01 |
| DF 37 Security Limits Status Common [M/Chip Advance] DF 3C CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3D CVR Issuer Discretionary Data 00 00 | DF 35 | Security Limits Status (Contactless) | 00 |
| DF 3C CVR Issuer Discretionary Data (Contact) [M/Chip Advance] DF 3D CVR Issuer Discretionary Data 00 | DF 37 | Security Limits Status Common [M/Chip | 00 |
| DF 3D CVR Issuer Discretionary Data 00 | DF 3C | CVR Issuer Discretionary Data | 00 |
| | DF 3D | CVR Issuer Discretionary Data | 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

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

4.7.2 Contact: Application Tag data, AID A000000041010

| 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 OF |
| 5A | Application Primary Account Number | 54 13 33 00 89 02 00 60 |
| | (PAN) | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 65 62 69 74 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 30 37 20 20 |
| | | 20 20 - 'USA DEBIT/Test Card 07' |
| 5F 24 | Application Expiration Date | 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 |



| Application Interchange Profile | Tag | Element name | Data v4.0 |
|--|---------|----------------------------|---------------------------------------|
| BYTE 1: | | | |
| B6 - Offline DDA NOT supported | - | | BYTE 1: |
| B5 - Cardholder verification supported | | | |
| D4 - Terminal risk mgmt to be performed ball - Issuer authentication NOT supported using External Authenticates command bit - Combined DDA / GEN AC NOT supported BYTE 2: B8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone b7 - Is NOT Mo | | | |
| B3 - Issuer authentication NOT supported using External Authenticate command 11 - Combined DDA / GEN AC NOT supported 11 - Combined DDA / GEN AC NOT supported 12 - B - Mag-stripe mode NOT supported 13 - B - Mag-stripe mode NOT supported 14 - B - B - Mag-stripe mode NOT supported 15 - B - B - Mag-stripe mode NOT supported 15 - B - B - Mag-stripe mode NOT supported 15 - B - B - Mag-stripe mode NOT supported 15 - B - B - Mag-s | | | |
| External Authenticate command D1 - Combined DDA / GEN AC NOT supported BYTE 2: | | | |
| BYTE 2: | | | |
| BB - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone A0 00 00 00 04 10 10 | | | · · · · · · · · · · · · · · · · · · · |
| B7 - Is NOT Mobile phone | | | · · · |
| Application Priority Indicator Start Card Risk Management Data Object List 1 (CDOL1) Start 1 (CDOL2) Start 1 (| | | b8 - Mag-stripe mode NOT supported |
| Application Priority Indicator SC Card Risk Management Data Object List 1 (CDOL1) SP 02 06 9F 03 06 9F 13 02 95 05 5F 24 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 75 14 | 84 | Dedicated File (DF) Name | |
| Card Risk Management Data Object List 1 (CDOL1) | | i i | |
| ## 1 CDOL1 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 21 03 9F 70 14 9F 35 01 9F 70 14 9F 35 01 9F 70 14 9F 36 02 9F 4C 08 9F 34 03 9F 21 03 9F 70 14 08 01 01 00 00 00 00 00 00 00 00 00 01 00 00 | | | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| Second S | | | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| Section Card Risk Management Data Object List 2 (CDOL2) | | . (0 = 0 = 1) | |
| 2 (CDOL2) 8E | | 0 15:14 | |
| List 5E 03 5F 03 00 00 | | 2 (CDOL2) | |
| Application File Locator (AFL) | 8E | ` , | |
| Application File Locator (AFL) | | | |
| 9F 07 Application Usage Control PF 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 b3 - International services valid b4 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - Internationa | | | |
| BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b2 - The valid b3 - International cashback NOT allowed b7 - International good b7 - International cashback NOT allowed b7 - International cashba | | 11 / | |
| b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - Internat | 9F 07 | Application Usage Control | |
| b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b3 - International gentices valid b3 - International services valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowe | | | - · · - · · |
| b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International Cashbac | | | |
| b4 - Domestic services valid b3 - International services valid b2 - ATMS valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b7 - International cashback NOT allowed b7 - Internati | | | b6 - Domestic goods valid |
| b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International Ca | | | |
| b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - Inte | | | |
| b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International NoT on 00 00 00 00 00 00 00 00 00 00 00 00 00 | | | |
| D8 - Domestic cashback NOT allowed D7 - International cashback NOT | | | |
| B7 - International cashback NOT allowed | | | BYTE 2: |
| 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 | | | |
| 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 | 0E 00 | Application Varsian Number | |
| Proprietary Data Proprietary Data Suer Action Code - Default B0 50 BC 88 00 | | | |
| 9F 0D Issuer Action Code - Default B0 50 BC 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx | Jai- UA | | |
| 9F 0E Issuer Action Code - Denial 00 00 00 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] XX | 9F 0D | | B0 50 BC 88 00 |
| 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx xx A0 xx | | | |
| 9F 10 Issuer Application Data [M/Chip Advance] xx | | | B0 70 BC 98 00 |
| Advance xx | | | xx xx A0 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 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 * |
| 20 20 20 20 - 'Mastercard' 9F 14 Counter 1 Lower Limit [Mastercard] 00 | 9F 11 | | |
| 9F 14 | 9F 12 | Application Preferred Name | |
| 9F 17 Personal Identification Number (PIN) Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) 9F 42 Application Currency Code 9F 4D Transaction Log Entry 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx | | | |
| 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx | 9F 17 | | 09 |
| 9F 26 Application Cryptogram (AC) xx | 05.00 | | 00 |
| 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx xx * 9F 42 Application Currency Code 08 26 - GBP 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 9F 36 Application Transaction Counter (ATC) xx xx * 9F 42 Application Currency Code 08 26 - GBP 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 9F 42 Application Currency Code 08 26 - GBP 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 9F 4D Transaction Log Entry 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 7C 14 | 51 41 | Transaction Log Format | |
| | | | 7C 14 |



| Segment name | Tog | Floment name | Da | to | | | | | | | | | | 4.0 |
|--|--------|---|----------|----|-----|----|----|----|------|------|------|------|----------|------|
| A | Tag | Application Life Cycle Data [Mastercord] | | | ΛB | 14 | 00 | 01 | 00 | ٥٥ | 50 | 17 | <u> </u> | |
| Card Issuer Action Code (Contact) - Decline [M/Chip Advance] Card Issuer Action Code (Contact) - Default [M/Chip Advance] Card Issuer Action Code (Contact) - Of 00 00 00 00 00 00 00 00 00 00 00 00 00 | 9F / E | Application Life Cycle Data [Mastercard] | | | | | | | | | | | _ | |
| Card Issuer Action Code (Contact) - Decline [M/Chip Advance] Decline | | | | | | | | | | | | | | |
| Decline [M/Chip Advance] | | | | | | | | | | | | | | 00 |
| Decline [M/Chip Advance] | C3 | Card Issuer Action Code (Contact) - | 00 | 00 | 00 | | | | | | | | | |
| Card Issuer Action Code (Contact) | | | | | | | | | | | | | | |
| Default [M/Chip Advance] | C4 | | 06 | 00 | 00 | | | | | | | | | |
| Card Issuer Action Code (Contact) - Online [M/Chip Advance] | 0. | | | | | | | | | | | | | |
| Online [M/Chip Advance] | C5 | | 06 | 00 | 00 | | | | | | | | | |
| C6 | 00 | ` , | | | | | | | | | | | | |
| CP Counter 1 Control (Mastercard) CR CODUL Related Data Length [Mastercard] CR CR Country Code [Mastercard] CR CODUL Related Data Length [Mastercard] CR CR Country Code [Mastercard] CR Accumulator 1 Currency Code [Mastercard] CR Accumulator 1 Lower Limit [Mastercard] CR Card Issuer Action Code (Contactless) - Default [M/Chip Advance] CR Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] CR Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] DR Application Check Table [Mastercard] DR Application Control [M/Chip Advance] DR Application File Locator (Contactless) DR Log Data Table [Mastercard] DR Accumulator 1 Control (Contact) [M/Chip Advance] DR 14 Accumulator 1 Control (Contact) [M/Chip Advance] DR 15 Accumulator 2 Currency Code [Mastercard] DR 16 Accumulator 2 Currency Code [Mastercard] DR 17 Accumulator 2 Currency Code [Mastercard] DR 18 Accumulator 2 Currency Conversion Table [Mastercard] DR 19 Accumulator 2 Currency Conversion Table [Mastercard] DR 10 Counter 1 Control (Contact) [M/Chip Advance] DR 11 Accumulator 2 Currency Code [Mastercard] DR 12 Accumulator 2 Currency Code [Mastercard] DR 14 Accumulator 2 Currency Conversion Table [Mastercard] DR 15 Accumulator 2 Currency Conversion Table [Mastercard] DR 16 Accumulator 2 Currency Conversion Table [Mastercard] DR 17 Accumulator 2 Currency Conversion Table [Mastercard] DR 18 Accumulator 2 Currency Conversion Table [Mastercard] DR 19 Counter 1 Control (Contact) [M/Chip Advance] DR 10 Counter 2 Control (Contact) [M/Chip Advance] DR 10 Counter 2 Control (Contact) [M/Chip Ad | C6 | | 09 | | | | | | | | | | | |
| Mastercard | | | | | | | | | | | | | | |
| CRM Country Code [Mastercard] | C1 | | | | | | | | | | | | | |
| C9 | Co | - | 00 | 26 | | DD | | | | | | | | |
| Mastercard | | | | | | | | | | | | | | |
| CA | C9 | | 08 | 26 | - G | DF | | | | | | | | |
| CB | | | 00 | 00 | ^^ | 00 | 00 | 00 | | | | | | |
| Color Card Issuer Action Code (Contactless) - Default M/Chip Advance Card Issuer Action Code (Contactless) - Online M/Chip Advance Card Issuer Action Code (Contactless) - Online M/Chip Advance Card Issuer Action Code (Contactless) - Decline M/Chip Advance O0 00 00 00 00 00 00 00 00 00 00 00 00 | | | | | | | | | | | | | | |
| Default [M/Chip Advance] | | | | | | UU | UU | UU | | | | | | |
| CE | CD | , | 00 | 00 | 00 | | | | | | | | | |
| Online Mi/Chip Advance Online Online Mi/Chip Advance Online O | | | | | | | | | | | | | | |
| CF | CE | | 00 | 00 | 00 | | | | | | | | | |
| Decline [M/Chip Advance] | | | | | | | | | | | | | | |
| D1 | CF | , | 00 | 00 | 00 | | | | | | | | | |
| Table [Mastercard] | | Decline [M/Chip Advance] | | | | | | | | | | | | |
| National Check Table [Mastercard] | D1 | Accumulator 1 Currency Conversion | | | | | | | | | | | | |
| D3 | | Table [Mastercard] | | 00 | 00 | 80 | 26 | 00 | 00 | 00 | 80 | 26 | 00 | 00 |
| FF | | A 1 101 1 T 1 1 T 1 1 T 1 1 T 1 1 T 1 1 T 1 1 T 1 1 T 1 1 T 1 1 T 1 1 T 1 1 T | | | | | | | | | | | | |
| D5 | D3 | Additional Check Table [Mastercard] | | | | | | | F.F. | F.F. | F.F. | F.F. | F.F. | F.F. |
| Default ARPC Response Code [M/Chip Advance] | DE | Application Central [M/Chip Advance] | | | | | | | | | | | | |
| D7 | | | | | | | | | | | | | | |
| D7 | Do | | | -0 | | | | | | | | | | |
| D9 | D7 | | 00 | ۸۸ | 00 | ۸۸ | 00 | 00 | | | | | | |
| DE | | | - 00 | | | | | | | | | | | |
| DF 02 Security Limits Status (Contact) [M/Chip Advance] | | , , | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | | |
| Advance C1 | | | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | | |
| DF 11 | DF 02 | | 00 | | | | | | | | | | | |
| M/Chip Advance | 55.44 | - | ~1 | | | | | | | | | | | |
| DF 12 | DF 11 | ` , | CI | | | | | | | | | | | |
| [M/Chip Advance] | | | | | | | | | | | | | | |
| DF 14 Accumulator 2 Control (Contact) | DF 12 | | 00 | | | | | | | | | | | |
| M/Chip Advance | | | | | | | | | | | | | | |
| DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 00 00 00 09 99 00 00 00 00 09 99 00 00 | DF 14 | | 00 | | | | | | | | | | | |
| [M/Chip Advance] DF 16 | | | | | | | | | | | | | | |
| DF 16 | DF 15 | | 00 | | | | | | | | | | | |
| [Mastercard] DF 17 | | | <u> </u> | | | | | | | | | | | |
| DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 00 00 09 99 00 00 00 00 09 99 00 00 | DF 16 | | 09 | 99 | | | | | | | | | | |
| Table [Mastercard] 00 00 00 09 99 00 00 09 99 00 00 DF 18 | | | | | | | | | | | | | | |
| DF 18 | DF 17 | • | | | | | | | | | | | | |
| DF 18 Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 | | Table [Mastercard] | | 00 | 00 | 09 | 99 | 00 | 00 | 00 | 09 | 99 | 00 | 00 |
| DF 19 Accumulator 2 Upper Limit [Mastercard] 00 00 00 00 00 00 DF 1A Counter 1 Control (Contact) [M/Chip Advance] DF 1B Counter 1 Control (Contactless) [M/Chip Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 | DE 40 | Annual to Oliver the College of the | | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DF 1A Counter 1 Control (Contact) [M/Chip Advance] DF 1B Counter 1 Control (Contactless) [M/Chip Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 | | | | | | | | | | | | | | |
| Advance] DF 1B Counter 1 Control (Contactless) [M/Chip Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 | | | | υÜ | υÜ | υÜ | υÜ | υÜ | | | | | | |
| DF 1B Counter 1 Control (Contactless) [M/Chip Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 | DF 1A | ` , | C1 | | | | | | | | | | | |
| Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 | | | ļ | | | | | | | | | | | |
| DF 1D Counter 2 Control (Contact) [M/Chip 00 | DF 1B | , | 00 | | | | | | | | | | | |
| 21 12 Counter Contact, [III] only | | | | | | | | | | | | | | |
| Advance] | DF 1D | | 00 | | | | | | | | | | | |
| | | Advance] | | | | | | | | | | | | |



| Tag | Element name | Data v4.0 |
|-------|--|-------------------|
| DF 1E | Counter 2 Control (Contactless) [M/Chip | 00 |
| | Advance] | |
| DF 1F | Counter 2 Lower Limit [Mastercard] | 00 |
| DF 21 | Counter 2 Upper Limit [Mastercard] | 00 |
| DF 22 | MTA CVM (Contact) [M/Chip Advance] | 00 00 00 00 00 00 |
| DF 23 | MTA CVM (Contactless) [M/Chip | 00 00 00 00 00 |
| | Advance] | |
| DF 24 | MTA Currency Code [M/Chip Advance] | 08 26 - GBP |
| DF 25 | MTA NoCVM (Contact) [M/Chip | 00 00 00 00 00 00 |
| | Advance] | 00.00.00.00.00 |
| DF 26 | MTA NoCVM (Contactless) [M/Chip | 00 00 00 00 00 00 |
| DE 07 | Advance] | 00 00 |
| DF 27 | Number Of Days Offline Limit [M/Chip | 00 00 |
| DF 28 | Advance] Accumulator 1 CVR Dependency Data | 00 00 00 |
| DF 20 | (Contact) [M/Chip Advance] | |
| DF 29 | Accumulator 1 CVR Dependency Data | 00 00 00 |
| D. 20 | (Contactless) [M/Chip Advance] | |
| DF 2A | Accumulator 2 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 2B | Accumulator 2 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 2C | Counter 1 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 2D | Counter 1 CVR Dependency Data | 00 00 00 |
| DE 05 | (Contactless) [M/Chip Advance] | 20.00.00 |
| DF 2E | Counter 2 CVR Dependency Data | 00 00 00 |
| DF 2F | (Contact) [M/Chip Advance] | 00 00 00 |
| DF ZF | Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance] | 00 00 00 |
| DF 30 | Interface Enabling Switch [M/Chip | 01 |
| Di 30 | Advance] | |
| DF 35 | Security Limits Status (Contactless) | 00 |
| 2. 00 | [M/Chip Advance] | |
| DF 37 | Security Limits Status Common [M/Chip | 00 |
| | Advance] | |
| DF 3C | CVR Issuer Discretionary Data | 00 |
| | (Contact) [M/Chip Advance] | |
| DF 3D | CVR Issuer Discretionary Data | 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 3F | Read Record Filter (Contact) [M/Chip | 00 |
| DE 40 | Advance] | 00 |
| DF 40 | Read Record Filter (Contactless) | 00 |
| DF 41 | [M/Chip Advance] DS Management Control [M/Chip | 20 |
| DF 41 | Advance | |
| L | | |

4.7.3 Contact: CVM List - Maestro debit, AID A000000043060

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



4.7.4 Contact: Application Tag data, AID A0000000043060

| Tag | Element name | Data v4.0 |
|----------------|--|--|
| 50 | Application Label | 4D 41 45 53 54 52 4F - 'MAESTRO' |
| 57 | | 67 99 99 89 00 00 02 00 05 1D 22 12 |
| 57 | Track 2 Equivalent Data | 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 - '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 | AO 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 |
| QE 00 | Application Version Number | 00 02 |
| 9F 08 9F 0A | Application Version Number 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 |



| Section Content Cont | T | Element and a | D.11 |
|--|----------|--|-------------------------------|
| Advance | Tag | Element name | Data v4.0 |
| Second S | 9F 10 | | |
| 9F 12 | 0= 11 | | |
| F 14 Counter 1 Lower Limit [Mastercard] | | | |
| 9F 14 Counter 1 Lower Limit [Mastercard] | 9F 12 | Application Preferred Name | |
| 9F 17 | OF 14 | Countar 1 Lower Limit [Mosterpard] | |
| Try Counter | | | |
| SF 23 | 9F 17 | | 09 |
| Section Sect | 05.00 | , | 00 |
| SF 27 Cryptogram Information Data (CID) SF 36 Application Transaction Counter (ATC) Xx | | | |
| SF 36 Application Transaction Counter (ATC) SF xx xx x | | | |
| Section Sect | | | |
| 9F 4D | | | |
| Fig. Frank Frank | | | |
| 9F 7E | | | |
| 9F 7E | 9F 4F | Transaction Log Format | |
| Application Life Cycle Data [Mastercard] | | | |
| A0 00 00 00 04 30 60 00 00 00 00 00 00 00 00 00 00 00 00 | 9F 7F | Application Life Cycle Data [Mastercard] | = |
| C3 | 01 7 | Application Life Cycle Data [Mactercard] | |
| C3 | | | |
| Decline [M/Chip Advance] | | | |
| C4 | C3 | , | 00 00 00 |
| Default [M/Chip Advance] | | | |
| C5 | C4 | | 7F 50 00 |
| Online [M/Chip Advance] | | | |
| C6 | C5 | , | 3F FB 00 |
| C7 | | | |
| [Mastercard] | | | |
| 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 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 00 00 00 00 00 00 00 00 00 00 | C7 | _ | 42 |
| C9 | | | |
| [Mastercard] CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 00 00 00 00 00 00 00 00 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 00 | | | |
| CA Accumulator 1 Lower Limit [Mastercard] 00 | C9 | | 08 26 - GBP |
| CB | | | |
| CD | | | |
| Default [M/Chip Advance] | | | |
| CE | CD | | 00 00 00 |
| Online [M/Chip Advance] | | | |
| 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 00 00 00 00 00 00 00 00 00 00 | CE | | 00 00 00 |
| Decline [M/Chip Advance] | | | |
| D1 | CF | | 00 00 00 |
| Table [Mastercard] | D: | | 00 06 00 00 00 00 00 00 00 00 |
| D3 | ן טן | | |
| D3 | | l able [Mastercard] | |
| FF | D3 | Additional Check Table [Mastercard] | |
| D6 | | , tasitional official rabio [Masteroard] | |
| D6 Default ARPC Response Code [M/Chip Advance] D7 Application Control [M/Chip Advance] D9 Application File Locator (Contactless) DE Log Data Table [M/Chip Advance] DF 02 Security Limits Status (Contact) [M/Chip Advance] DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) | D5 | Application Control [M/Chip Advance] | 86 00 80 00 C6 02 |
| Advance | | | 00 10 |
| D9 Application File Locator (Contactless) DE Log Data Table [M/Chip Advance] DF 02 Security Limits Status (Contact) [M/Chip Advance] DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) | | Advance] | |
| D9 Application File Locator (Contactless) DE Log Data Table [M/Chip Advance] DF 02 Security Limits Status (Contact) [M/Chip Advance] DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) | D7 | Application Control [M/Chip Advance] | 00 00 00 00 00 |
| DE Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 DF 02 Security Limits Status (Contact) [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 00 | D9 | | |
| DF 02 Security Limits Status (Contact) [M/Chip Advance] DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) | | | 00 00 00 00 00 00 00 00 |
| Advance] DF 11 | | | 00 |
| DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) 00 | | | |
| [M/Chip Advance] DF 12 Accumulator 1 Control (Contactless) 00 | DF 11 | - | C1 |
| DF 12 Accumulator 1 Control (Contactless) 00 | | | |
| | DF 12 | | 00 |
| | | | |



| Tag | Element name | Data | v4.0 |
|-------|--|--|------|
| DF 14 | Accumulator 2 Control (Contact) | 00 | |
| | [M/Chip Advance] | | |
| DF 15 | Accumulator 2 Control (Contactless) | 00 | |
| | [M/Chip Advance] | | |
| DF 16 | Accumulator 2 Currency Code | 09 99 | |
| | [Mastercard] | | |
| DF 17 | Accumulator 2 Currency Conversion | 09 99 00 00 00 09 99 00 00 00 0 | |
| | Table [Mastercard] | 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 | C1 | |
| 5/. | Advance] | | |
| DF 1B | Counter 1 Control (Contactless) [M/Chip | 00 | |
| | Advance] | | |
| DF 1D | Counter 2 Control (Contact) [M/Chip | 00 | |
| | Advance] | | |
| DF 1E | Counter 2 Control (Contactless) [M/Chip | 00 | |
| | Advance] | | |
| DF 1F | Counter 2 Lower Limit [Mastercard] | 00 | |
| DF 21 | Counter 2 Upper Limit [Mastercard] | 00 | |
| DF 22 | MTA CVM (Contact) [M/Chip Advance] | 00 00 00 00 00 | |
| DF 23 | MTA CVM (Contactless) [M/Chip | 00 00 00 00 00 | |
| 55.01 | Advance] | ODD. | |
| DF 24 | MTA Currency Code [M/Chip Advance] | 08 26 - GBP | |
| DF 25 | MTA NoCVM (Contact) [M/Chip | 00 00 00 00 00 | |
| DF 26 | Advance] MTA NoCVM (Contactless) [M/Chip | 00 00 00 00 00 00 | |
| DF 20 | Advance] | | |
| DF 27 | Number Of Days Offline Limit [M/Chip | 00 00 | |
| D1 21 | Advance] | | |
| DF 28 | Accumulator 1 CVR Dependency Data | 00 00 00 | |
| | (Contact) [M/Chip Advance] | | |
| DF 29 | Accumulator 1 CVR Dependency Data | 00 00 00 | |
| | (Contactless) [M/Chip Advance] | | |
| DF 2A | Accumulator 2 CVR Dependency Data | 00 00 00 | |
| | (Contact) [M/Chip Advance] | | |
| DF 2B | Accumulator 2 CVR Dependency Data | 00 00 00 | |
| | (Contactless) [M/Chip Advance] | | |
| DF 2C | Counter 1 CVR Dependency Data | 00 00 00 | |
| DE OD | (Contact) [M/Chip Advance] | 00 00 00 | |
| DF 2D | Counter 1 CVR Dependency Data | | |
| DF 2E | (Contactless) [M/Chip Advance] Counter 2 CVR Dependency Data | 00 00 00 | |
| DF ZE | (Contact) [M/Chip Advance] | | |
| DF 2F | Counter 2 CVR Dependency Data | 00 00 00 | |
| D1 21 | (Contactless) [M/Chip Advance] | | |
| DF 30 | Interface Enabling Switch [M/Chip | 01 | |
| | Advance] | | |
| DF 35 | Security Limits Status (Contactless) | 00 | |
| | [M/Chip Advance] | | |
| DF 37 | Security Limits Status Common [M/Chip | 00 | |
| | Advance] | | |
| DF 3C | CVR Issuer Discretionary Data | 00 | |
| | (Contact) [M/Chip Advance] | | |
| DF 3D | CVR Issuer Discretionary Data | 00 | |
| | (Contactless) [M/Chip Advance] | | |



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

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

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

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

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

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

4.8.2 Contact: Application Tag data, AID A0000000042203D0561111

| Tag | Element name | Data 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 2 | 0 |
| | | 14 83 59 49 00 OF | |
| 5A | Application Primary Account Number (PAN) | 54 13 33 00 89 09 90 07 | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 65 62 69 74 2F 54 6 | 5 |
| | | 73 74 20 43 61 72 64 20 30 38 20 2 | 0 |
| | | 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 - 'US' | |



| 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 |
| 84 | Dedicated File (DF) Name | b7 - Is NOT Mobile phone A0 00 00 00 04 22 03 D0 56 11 11 |
| 87 | Application Priority Indicator | 01 |
| 8C | Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| 00 | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| | 1 (00021) | 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 |
| | | 9F 7C 14 |
| 8D | Card Risk Management Data Object List | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| 05 | 2 (CDOL2) | 00 00 00 00 00 00 00 00 00 00 |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 |
| 0.4 | List | 08 01 01 00 |
| 94 | Application File Locator (AFL) | 08 01 01 00 |
| 9 4 9F 07 | Application File Locator (AFL) Application Usage Control | FF C0 |
| 95 07 | Application Usage Control | BYTE 1: |
| | | b8 - Domestic cash transactions valid |
| | | b7 - Int'l cash transactions valid |
| | | b6 - Domestic goods valid |
| | | b5 - International goods valid |
| | | b4 - Domestic services valid b3 - International services valid |
| | | b2 - ATMs valid |
| | | b1- Terminals other than ATMs valid |
| | | BYTE 2: |
| | | b8 - Domestic cashback allowed |
| | | b7 - International cashback allowed |
| 9F 08 | Application Version Number | 00 02 |
| 9F 0D | Issuer Action Code - Default | B0 50 9C 88 00 00 00 00 00 00 |
| 9F 0E | Issuer Action Code - Denial | B0 70 9C 98 00 |
| 9F 0F 9F 10 | Issuer Action Code - Online Issuer Application Data [M/Chip | xx xx A0 xx xx xx xx xx xx xx xx xx |
| 91 10 | Advance] | xx xx xx xx xx xx * |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 11 | Application Preferred Name | 55 53 20 43 68 65 63 6B 69 6E 67 - |
| 91 12 | Application i referred Name | 'US Checking' |
| 9F 14 | Counter 1 Lower Limit [Mastercard] | 00 |
| 9F 17 | Personal Identification Number (PIN) | 03 |
| | Try Counter | |
| 9F 23 | Counter 1 Upper Limit [Mastercard] | 00 |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 42 | Application Currency Code | 08 40 - USD |
| 9F 4D | Transaction Log Entry | 0B 0A |
| 9F 4F | Transaction Log Format | 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F |
| | | 36 02 9F 52 06 DF 3E 01 9F 21 03 9F |
| | | 7C 14 |



| Segment name | T | Florestone | <u> </u> | 1 - | | | | | | | | | | 4.0 |
|--|----------|--|----------|-----|-----|-----|----|----|-----|-----|-----|-----|----|------|
| AB | Tag | Element name | | | 0 D | 1 4 | 00 | 01 | 00 | 00 | - A | 17 | • | 11.0 |
| Card Issuer Action Code (Contact) - Decline [M/Chip Advance] Card Issuer Action Code (Contact) - Decline [M/Chip Advance] Card Issuer Action Code (Contact) - Default [M/Chip Advance] Card Issuer Action Code (Contact) - Default [M/Chip Advance] Card Issuer Action Code (Contact) - Of 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 9F 7E | Application Life Cycle Data [Mastercard] | | | | | | | | | | | _ | |
| Card Issuer Action Code (Contact) - Decline [M/Chip Advance] | | | | | | | | | | | | | | |
| Card Issuer Action Code (Contact) - Decline [M/Chip Advance] | | | | | | | | | | | | | | |
| Decline M/Chip Advance C4 | C3 | Card Issuer Action Code (Contact) - | | | | - | | | - | - | | - | | |
| Card Issuer Action Code (Contact) | CS | | | 00 | 00 | | | | | | | | | |
| Default [M/Chip Advance] | C4 | | 06 | 00 | 00 | | | | | | | | | |
| Card Issuer Action Code (Contact) - Online [M/Chip Advance] | C4 | | 06 | 00 | 00 | | | | | | | | | |
| Online [M/Chip Advance] | 0.5 | | 0.0 | ^^ | | | | | | | | | | |
| C6 | C5 | ` , | 06 | 00 | 00 | | | | | | | | | |
| CDOL1 Related Data Length Mastercard Mastercard | | | | | | | | | | | | | | |
| Mastercard | | | | | | | | | | | | | | |
| CRM Country Code [Mastercard] | C7 | | 42 | | | | | | | | | | | |
| C9 | | • | | | | | | | | | | | | |
| [Mastercard] | | | 08 | 40 | - U | SA | | | | | | | | |
| CA | C9 | Accumulator 1 Currency Code | 08 | 40 | - U | SD | | | | | | | | |
| CB | | [Mastercard] | | | | | | | | | | | | |
| CB | CA | Accumulator 1 Lower Limit [Mastercard] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| Card Issuer Action Code (Contactless) - Default [M/Chip Advance] | | Accumulator 1 Upper Limit [Mastercard] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| Default [M/Chip Advance] | | | 00 | 00 | 00 | | | | | | | | | |
| CE | | , | | | | | | | | | | | | |
| Online [M/Chip Advance] | CF | | 00 | 00 | 00 | | | | | | | | | |
| Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] | 0_ | , | | - | - | | | | | | | | | |
| Decline [M/Chip Advance] | CF | | 0.0 | 00 | 0.0 | | | | | | | | | |
| D1 | Ci | , | | • | • | | | | | | | | | |
| Table [Mastercard] | D4 | | 00 | 40 | 00 | 00 | 00 | 00 | 40 | 00 | 00 | 00 | 00 | 40 |
| National Check Table [Mastercard] | וט | · | | | | | | | | | | | | |
| D3 | | i able [Mastercard] | | 00 | 00 | 00 | | 00 | 00 | 00 | 00 | -10 | 00 | 00 |
| D5 | D3 | Additional Check Table [Mastercard] | | 00 | 00 | FF | FF | FF | FF | FF | FF | FF | FF | FF |
| Default ARPC Response Code [M/Chip Advance] | D0 | Additional Official Table [Masteroard] | FF | FF | FF | FF | FF | FF | | | | | | |
| Default ARPC Response Code [M/Chip Advance] | D5 | Application Control [M/Chip Advance] | 80 | 00 | 80 | 00 | С6 | 02 | | | | | | |
| Advance | | | 00 | 10 | | | | | | | | | | |
| D7 | | · · | | | | | | | | | | | | |
| D9 | D7 | | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DE | | | | | | | | | | | | | | |
| DF 02 Security Limits Status (Contact) [M/Chip Advance] | | , , | 0.0 | 00 | 0.0 | 00 | 00 | 00 | 0.0 | 0.0 | 00 | | | |
| DF 11 | | | | | | | | | | | | | | |
| DF 11 | DI 02 | | | | | | | | | | | | | |
| M/Chip Advance DF 12 | DE 44 | | C1 | | | | | | | | | | | |
| DF 12 | ו אט | , | CI | | | | | | | | | | | |
| M/Chip Advance | DE 40 | | 00 | | | | | | | | | | | |
| DF 14 | DF 12 | | 00 | | | | | | | | | | | |
| M/Chip Advance | DE 4.4 | | 00 | | | | | | | | | | | |
| DF 15 | DF 14 | | 00 | | | | | | | | | | | |
| [M/Chip Advance] 09 99 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 < | | | | | | | | | | | | | | |
| DF 16 | DF 15 | | 00 | | | | | | | | | | | |
| [Mastercard] DF 17 | | | | | | | | | | | | | | |
| DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 00 00 00 99 90 00 00 00 00 00 99 90 00 0 | DF 16 | | 09 | 99 | | | | | | | | | | |
| Table [Mastercard] | | | | | | | | | | | | | | |
| DF 18 | DF 17 | Accumulator 2 Currency Conversion | | | | | | | | | | | | |
| DF 18 | | Table [Mastercard] | | 00 | 00 | 09 | 99 | 00 | 00 | 00 | 09 | 99 | 00 | 00 |
| DF 19 Accumulator 2 Upper Limit [Mastercard] 00 00 00 00 00 00 DF 1A Counter 1 Control (Contact) [M/Chip Advance] DF 1B Counter 1 Control (Contactless) [M/Chip Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 | DE (- | | | ^^ | ^^ | ^^ | | | | | | | | |
| DF 1A Counter 1 Control (Contact) [M/Chip Advance] DF 1B Counter 1 Control (Contactless) [M/Chip Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 | | | | | | | | | | | | | | |
| Advance] DF 1B Counter 1 Control (Contactless) [M/Chip Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 | | | | υ0 | υ0 | 00 | 00 | 00 | | | | | | |
| DF 1B Counter 1 Control (Contactless) [M/Chip Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 | DF 1A | | C1 | | | | | | | | | | | |
| Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00 | | | | | | | | | | | | | | |
| DF 1D Counter 2 Control (Contact) [M/Chip 00 | DF 1B | Counter 1 Control (Contactless) [M/Chip | 00 | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | DF 1D | Counter 2 Control (Contact) [M/Chip | 00 | | | | | | | | | | | |
| | | | | | | | | | | | | | | |



| Tag | Element name | Data v4.0 |
|-------|--|-------------------|
| DF 1E | Counter 2 Control (Contactless) [M/Chip | 00 |
| | Advance] | |
| DF 1F | Counter 2 Lower Limit [Mastercard] | 00 |
| DF 21 | Counter 2 Upper Limit [Mastercard] | 00 |
| DF 22 | MTA CVM (Contact) [M/Chip Advance] | 00 00 00 00 00 00 |
| DF 23 | MTA CVM (Contactless) [M/Chip | 00 00 00 00 00 00 |
| | Advance] | |
| DF 24 | MTA Currency Code [M/Chip Advance] | 08 40 - USD |
| DF 25 | MTA NoCVM (Contact) [M/Chip | 00 00 00 00 00 00 |
| | Advance] | |
| DF 26 | MTA NoCVM (Contactless) [M/Chip | 00 00 00 00 00 00 |
| | Advance] | |
| DF 27 | Number Of Days Offline Limit [M/Chip | 00 00 |
| | Advance] | |
| DF 28 | Accumulator 1 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 29 | Accumulator 1 CVR Dependency Data | 00 00 00 |
| 55.01 | (Contactless) [M/Chip Advance] | 20.00.00 |
| DF 2A | Accumulator 2 CVR Dependency Data | 00 00 00 |
| DE 00 | (Contact) [M/Chip Advance] | 00.00.00 |
| DF 2B | Accumulator 2 CVR Dependency Data | 00 00 00 |
| DF 2C | (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 | 00 00 00 |
| D1 20 | (Contactless) [M/Chip Advance] | |
| DF 2E | Counter 2 CVR Dependency Data | 00 00 00 |
| 5 | (Contact) [M/Chip Advance] | |
| DF 2F | Counter 2 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 30 | Interface Enabling Switch [M/Chip | 01 |
| | Advance] | |
| DF 35 | Security Limits Status (Contactless) | 00 |
| | [M/Chip Advance] | |
| DF 37 | Security Limits Status Common [M/Chip | 00 |
| | Advance] | |
| DF 3C | CVR Issuer Discretionary Data | 00 |
| | (Contact) [M/Chip Advance] | |
| DF 3D | CVR Issuer Discretionary Data | 00 |
| DE SE | (Contactless) [M/Chip Advance] | |
| DF 3F | Read Record Filter (Contact) [M/Chip | 00 |
| DE 40 | Advance] | 00 |
| DF 40 | Read Record Filter (Contactless) | |
| DF 41 | [M/Chip Advance] DS Management Control [M/Chip | 20 |
| DF 41 | DS Management Control [M/Cnip Advance] | |
| | Auvancej | |



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 | Element name | Data v4.0 |
|-------|---|---|
| 42 | Issuer Identification Number (IIN) | 54 13 33 |
| | | 55 53 20 53 41 56 49 4E 47 53 - US |
| 50 | Application Label | SAVINGS' |
| 57 | Trook 2 Equivalent Data | 54 13 33 00 89 09 90 15 D2 21 22 20 |
| 57 | Track 2 Equivalent Data | 14 83 59 49 00 0F |
| 5A | Application Primary Account Number | 54 13 33 00 89 09 90 15 |
| | (PAN) | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 65 62 69 74 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 30 38 20 20 |
| 55.04 | A 11 11 E 1 11 B 1 | 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 - '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 D0 56 22 22 |
| 87 | Application Priority Indicator | 02 |
| 8C | Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| | | 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 |
| 0D | Cord Dick Management Data Chiest List | 9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| 8D | Card Risk Management Data Object List 2 (CDOL2) | 71 OA OA OZ 93 O3 9E 37 O4 9E 4C 00 |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 05 42 03 |
| | List | 1F 03 00 00 |
| 94 | Application File Locator (AFL) | 08 01 01 00 |
| 94 | Application File Locator (AFL) | 08 01 01 00 |



| Tag | Element name | Data v4.0 |
|-------|--|---|
| 9F 07 | Application Usage Control | FF CO |
| | . Phusana canàs cama | 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 | xx xx A0 xx xx xx xx xx xx xx xx |
| | Advance] | xx xx xx xx xx * |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 12 | Application Preferred Name | 55 53 20 53 61 76 69 6E 67 73 - 'US |
| | | Savings' |
| 9F 14 | Counter 1 Lower Limit [Mastercard] | 00 |
| 9F 17 | Personal Identification Number (PIN) | 03 |
| | Try Counter | |
| 9F 23 | Counter 1 Upper Limit [Mastercard] | 00 |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx 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 |
| 9 7 1 | Application Life Cycle Data [Mastercard] | A0 00 00 00 04 22 03 00 00 00 00 00 |
| | | 00 00 00 00 00 80 00 88 01 06 A5 5A |
| | | 00 00 00 00 00 00 00 00 00 00 00 |
| C3 | Card Issuer Action Code (Contact) - | 00 00 00 |
| | Decline [M/Chip Advance] | |
| C4 | Card Issuer Action Code (Contact) - | 06 00 00 |
| | Default [M/Chip Advance] | |
| C5 | Card Issuer Action Code (Contact) - | 06 00 00 |
| | Online [M/Chip Advance] | |
| C6 | PIN Try Limit [M/Chip Advance] | 03 |
| C7 | CDOL1 Related Data Length | 42 |
| | [Mastercard] | |
| C8 | CRM Country Code [Mastercard] | 08 40 - USA |
| C9 | Accumulator 1 Currency Code | 08 40 - USD |
| | [Mastercard] | |
| CA | Accumulator 1 Lower Limit [Mastercard] | 00 00 00 00 00 00 |
| СВ | Accumulator 1 Upper Limit [Mastercard] | 00 00 00 00 00 00 |
| CD | Card Issuer Action Code (Contactless) - | 00 00 00 |
| | Default [M/Chip Advance] | |
| CE | Card Issuer Action Code (Contactless) - | 00 00 00 |
| | Online [M/Chip Advance] | |
| CF | Card Issuer Action Code (Contactless) - | 00 00 00 |
| | Decline [M/Chip Advance] | |



| Tag | Element name | Da | | | | | | | | | | | 4.0 |
|--------------|--|----|----|-----|----------|------|------|------|------|----|------|------|------|
| D1 | Accumulator 1 Currency Conversion | | 40 | | 00 | | | | 00 | | 00 | | 40 |
| | Table [Mastercard] | 00 | 00 | 00 | 08 | 40 | 00 | 00 | 00 | 80 | 40 | 00 | 00 |
| D3 | Additional Check Table [Mastercard] | | 00 | 00 | ਸਬ | ਸ਼ਸ਼ | ਸ਼ਸ਼ | ਸ਼ਸ਼ | ਸ਼ਸ਼ | FF | ਸ਼ਸ਼ | ਸ਼ਸ਼ | ਸ਼ਸ਼ |
| DS | Additional Check Table [Mastercard] | | FF | | FF | | FF | | | | | | |
| D5 | Application Control [M/Chip Advance] | | | 80 | | | 02 | | | | | | |
| D6 | Default ARPC Response Code [M/Chip | 00 | 10 | | | | | | | | | | |
| | Advance | | | | | | | | | | | | |
| D7 | Application Control [M/Chip Advance] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| D9 | Application File Locator (Contactless) | | | | | | | | | | | | |
| DE | Log Data Table [M/Chip Advance] | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | | |
| DF 02 | Security Limits Status (Contact) [M/Chip | 00 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 11 | Accumulator 1 Control (Contact) | C1 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 12 | Accumulator 1 Control (Contactless) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 14 | Accumulator 2 Control (Contact) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 15 | Accumulator 2 Control (Contactless) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 16 | Accumulator 2 Currency Code | 09 | 99 | | | | | | | | | | |
| | [Mastercard] | | | | | | | | | | | | |
| DF 17 | Accumulator 2 Currency Conversion | 09 | 99 | 00 | 00 | 00 | 09 | 99 | 00 | 00 | 00 | 09 | 99 |
| | Table [Mastercard] | | 00 | 00 | 09 | 99 | 00 | 00 | 00 | 09 | 99 | 00 | 00 |
| | | 00 | | | | | | | | | | | |
| DF 18 | Accumulator 2 Lower Limit [Mastercard] | | | 00 | | | | | | | | | |
| DF 19 | Accumulator 2 Upper Limit [Mastercard] | | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DF 1A | Counter 1 Control (Contact) [M/Chip | C1 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 1B | Counter 1 Control (Contactless) [M/Chip | 00 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 1D | Counter 2 Control (Contact) [M/Chip | 00 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 1E | Counter 2 Control (Contactless) [M/Chip | 00 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 1F | Counter 2 Lower Limit [Mastercard] | 00 | | | | | | | | | | | |
| DF 21 | Counter 2 Upper Limit [Mastercard] | 00 | | | | | | | | | | | |
| DF 22 | MTA CVM (Contact) [M/Chip Advance] | | | 00 | | | | | | | | | |
| DF 23 | MTA CVM (Contactless) [M/Chip | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DE 04 | Advance] | | | | <u> </u> | | | | | | | | |
| DF 24 | MTA Currency Code [M/Chip Advance] | | | - U | | 00 | 00 | | | | | | |
| DF 25 | MTA NoCVM (Contact) [M/Chip | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DE 00 | Advance] | | | | | | | | | | | | |
| DF 26 | MTA NoCVM (Contactless) [M/Chip | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DE 07 | Advance] | 00 | 00 | | | | | | | | | | |
| DF 27 | Number Of Days Offline Limit [M/Chip | 00 | 00 | | | | | | | | | | |
| DE 00 | Advance] | 00 | 00 | 00 | | | | | | | | | |
| DF 28 | Accumulator 1 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| DE 00 | (Contact) [M/Chip Advance] | 00 | 00 | 00 | | | | | | | | | |
| DF 29 | Accumulator 1 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| DEOA | (Contactless) [M/Chip Advance] | 00 | 00 | 00 | | | | | | | | | |
| DF 2A | Accumulator 2 CVR Dependency Data | 00 | UU | UU | | | | | | | | | |
| DE OB | (Contact) [M/Chip Advance] | 00 | 00 | 00 | | | | | | | | | |
| DF 2B | Accumulator 2 CVR Dependency Data | 00 | UU | UU | | | | | | | | | |
| DE 00 | (Contactless) [M/Chip Advance] | 00 | 00 | 00 | | | | | | | | | |
| DF 2C | Counter 1 CVR Dependency Data | 00 | UU | UU | | | | | | | | | |
| | (Contact) [M/Chip Advance] | 1 | | | | | | | | | | | |



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

4.9 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

| | rag value changes was caused | | | | | | |
|-----|------------------------------------|---------------------------------|-------|--|--|--|--|
| 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 2 | 22 01 | | | | |
| | · | 14 83 59 49 00 OF | | | | | |
| 5A | Application Primary Account Number | 54 13 33 00 89 02 00 60 | | | | | |
| | (PAN) | | | | | | |

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| Tog | Flament name | Doto v4.0 |
|----------------|---|---|
| Tag | Element name Cardholder Name | Data V4.0 55 41 54 20 44 65 62 69 74 2F 54 65 |
| 5F 20 | Cardnoider Name | 73 74 20 43 61 72 64 20 30 39 20 20 |
| | | 20 20 - 'USA DEBIT/Test Card 09' |
| 5F 24 | Application Expiration Date | 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 | | 18 00 |
| 02 | Application Interchange Profile | BYTE 1: |
| | | b7 - Offline SDA NOT supported |
| | | b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported 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 | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| | 1 (05021) | 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 |
| | | 9F 7C 14 |
| 8D | Card Risk Management Data Object List | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| | 2 (CDOL2) | |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 41 03 42 03 |
| | List | 5E 03 1F 00 00 00 |
| 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 |
| 9F 08 | Application Version Number | b7 - International cashback NOT allowed |
| 9F 00 | Application Version Number Issuer Action Code - Default | B0 50 BC 88 00 |
| 9F 0E | Issuer Action Code - Denaul | 00 00 00 00 00 |
| 9F 0E 9F 0F | | B0 70 BC 98 00 |
| | Issuer Application Pote IM/Chip | xx xx A0 xx xx xx xx xx xx xx xx xx |
| 9F 10 | Issuer Application Data [M/Chip | ** ** ** ** ** ** ** ** ** ** ** ** ** |
| OE 11 | Advance] | 01 |
| 9F 11 | Issuer Code Table Index | 4D 61 73 74 65 72 63 61 72 64 20 20 |
| 9F 12 | Application Preferred Name | 20 20 20 20 - 'Mastercard' |
| 0E 14 | Countar 1 Lower Limit [Mastersard] | 00 20 20 20 - Mastercard |
| 9F 14 | Counter 1 Lower Limit [Mastercard] | 09 |
| 9F 17 | Personal Identification Number (PIN) | |
| 05.00 | Try Counter | 00 |
| 9F 23 | Counter 1 Upper Limit [Mastercard] | |
| 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 | OB OA |
| 9F 4F | Transaction Log Format | 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F |
| 0 | Transaction Log Comman | 36 02 9F 52 06 DF 3E 01 9F 21 03 9F |
| | | 7C 14 |
| 9F 7E | Application Life Cycle Data [Mastercard] | 04 10 0B 14 00 01 00 00 50 17 79 00 |
| | | A0 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 00 00 |
| | | 00 00 00 00 00 00 00 00 00 00 00 00 |
| C3 | Card Issuer Action Code (Contact) - | 00 00 00 |
| | Decline [M/Chip Advance] | |
| C4 | Card Issuer Action Code (Contact) - | 1F 50 00 |
| | Default [M/Chip Advance] | |
| C5 | Card Issuer Action Code (Contact) - | 3F FB 00 |
| | Online [M/Chip Advance] | |
| C6 | PIN Try Limit [M/Chip Advance] | 09 |
| C7 | CDOL1 Related Data Length | 42 |
| | [Mastercard] | |
| C8 | CRM Country Code [Mastercard] | 08 40 - USA |
| C9 | Accumulator 1 Currency Code | 08 40 - USD |
| | [Mastercard] | |
| CA | Accumulator 1 Lower Limit [Mastercard] | 00 00 00 00 00 |
| СВ | Accumulator 1 Upper Limit [Mastercard] | 00 00 00 00 00 |
| CD | Card Issuer Action Code (Contactless) - | 00 00 00 |
| | Default [M/Chip Advance] | |
| CE | Card Issuer Action Code (Contactless) - | 00 00 00 |
| | Online [M/Chip Advance] | |
| CF | Card Issuer Action Code (Contactless) - | 00 00 00 |
| D1 | Decline [M/Chip Advance] | 08 40 00 00 00 08 40 00 00 00 08 40 |
| וטו | Accumulator 1 Currency Conversion Table [Mastercard] | 00 00 00 08 40 00 00 00 08 40 00 00 |
| | Table [Mastercard] | 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 00 10 |
| D6 | Default ARPC Response Code [M/Chip | 00 10 |
| D7 | Advance] | 00 00 00 00 00 00 |
| D7 | Application Control [M/Chip Advance] | 00 00 00 00 00 |
| D9 DE | Application File Locator (Contactless) Log Data Table [M/Chip Advance] | 00 00 00 00 00 00 00 00 |
| DF 02 | Security Limits Status (Contact) [M/Chip | 00 |
| DF 02 | Advance | |
| DF 11 | Accumulator 1 Control (Contact) | C1 |
| | [M/Chip Advance] | |
| DF 12 | Accumulator 1 Control (Contactless) | 00 |
| | [M/Chip Advance] | |
| DF 14 | Accumulator 2 Control (Contact) | 00 |
| | [M/Chip Advance] | |
| DF 15 | Accumulator 2 Control (Contactless) | 00 |
| | [M/Chip Advance] | |
| DF 16 | Accumulator 2 Currency Code | 09 99 |
| | [Mastercard] | |
| DF 17 | Accumulator 2 Currency Conversion | 09 99 00 00 00 09 99 00 00 00 09 99 |
| | Table [Mastercard] | 00 00 00 09 99 00 00 00 09 99 00 00 |
| DF 18 | Accumulator 2 Lower Limit [Mastercard] | 00 00 00 00 00 00 |
| וט וט | / Novamulator Z Lower Limit [Mastercalu] | |



| Tog | Floment name | Poto v4.0 |
|----------------|--|-------------------|
| Tag | Element name | Data v4.0 |
| DF 19 | Accumulator 2 Upper Limit [Mastercard] | C1 |
| DF 1A | Counter 1 Control (Contact) [M/Chip | |
| DF 1B | Advance] Counter 1 Control (Contactless) [M/Chip | 00 |
| טר וס | | 00 |
| DF 1D | Advance] Counter 2 Control (Contact) [M/Chip | 00 |
| טר וט | Advance | 00 |
| DF 1E | Counter 2 Control (Contactless) [M/Chip | 00 |
| DF IE | Advance | |
| DF 1F | Counter 2 Lower Limit [Mastercard] | 00 |
| DF 1F | | 00 |
| DF 21 | Counter 2 Upper Limit [Mastercard] | 00 00 00 00 00 00 |
| DF 23 | MTA CVM (Contact) [M/Chip Advance] | 00 00 00 00 00 00 |
| DF 23 | MTA CVM (Contactless) [M/Chip | 00 00 00 00 00 00 |
| DE 24 | Advance] | 08 40 - USD |
| DF 24 DF 25 | MTA NoCVM (Contact) [M/Chip | 00 00 00 00 00 00 |
| DF 25 | MTA NoCVM (Contact) [M/Chip | 00 00 00 00 00 00 |
| DF 26 | Advance] MTA NoCVM (Contactless) [M/Chip | 00 00 00 00 00 00 |
| DF 20 | Advance | 00 00 00 00 00 |
| DF 27 | Number Of Days Offline Limit [M/Chip | 00 00 |
| DF ZI | Advance] | |
| DF 28 | Accumulator 1 CVR Dependency Data | 00 00 00 |
| DF 20 | (Contact) [M/Chip Advance] | |
| DF 29 | Accumulator 1 CVR Dependency Data | 00 00 00 |
| DI 23 | (Contactless) [M/Chip Advance] | |
| DF 2A | Accumulator 2 CVR Dependency Data | 00 00 00 |
| DI ZA | (Contact) [M/Chip Advance] | |
| DF 2B | Accumulator 2 CVR Dependency Data | 00 00 00 |
| D1 2D | (Contactless) [M/Chip Advance] | |
| DF 2C | Counter 1 CVR Dependency Data | 00 00 00 |
| D1 20 | (Contact) [M/Chip Advance] | |
| DF 2D | Counter 1 CVR Dependency Data | 00 00 00 |
| J. 25 | (Contactless) [M/Chip Advance] | |
| DF 2E | Counter 2 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 2F | Counter 2 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 30 | Interface Enabling Switch [M/Chip | 01 |
| | Advance] | |
| DF 35 | Security Limits Status (Contactless) | 00 |
| | [M/Chip Advance] | |
| DF 37 | Security Limits Status Common [M/Chip | 00 |
| | Advance] | |
| DF 3C | CVR Issuer Discretionary Data | 00 |
| | (Contact) [M/Chip Advance] | |
| DF 3D | CVR Issuer Discretionary Data | 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 3F | Read Record Filter (Contact) [M/Chip | 00 |
| | Advance] | |
| DF 40 | Read Record Filter (Contactless) | 00 |
| | [M/Chip Advance] | |
| DF 41 | DS Management Control [M/Chip | 20 |
| | Advance] | |



4.9.3 Contact: CVM List - Maestro debit, AID A000000043060

| 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

| _ | l | " Lag 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 - '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 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 | Da | ta | | | | | | | | | V | /4.0 |
|-------|--|--|-------|-------|-----------|-------|--------------|-------|------|-------|------|-----|------|
| 9F 07 | Application Usage Control | | C0 | | | | | | | | | | |
| 0. 0. | 7 Application Coago Control | BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid | | | | | | | | | | | |
| | | | | | | | | id | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | b5 | - Int | erna | tion | al go | oods | vali | id | | | | |
| | | | | | | | ces | | | | | | |
| | | | | | | | ervic | es v | alid | | | | |
| | | - | - AT | _ | | | | | | | | | |
| | | | | | als c | ther | tha | n A I | Ms | valid | t | | |
| | | | TE 2 | | 4: | _ | اء ۔ ما | | | J | | | |
| | | | | | | | back ashb | | | | | | |
| 9F 08 | Application Version Number | | 02 | CIIIC | lliOH | ai Ca | טוופג | aun | allo | weu | | | |
| 9F 0D | Issuer Action Code - Default | | 50 | BC | 88 | 00 | | | | | | | |
| 9F 0E | Issuer Action Code - Derial | 00 | | 00 | | 00 | | | | | | | |
| 9F 0F | Issuer Action Code - Demai | | 70 | | | 00 | | | | | | | |
| 9F 10 | | | | | | | xx | vv | vv | vv | vv | vv | vv |
| 95 10 | Issuer Application Data [M/Chip Advance] | | | | | | xx | | ^^ | ^^ | ^^ | ^^ | AA |
| 9F 11 | Issuer Code Table Index | 01 | | | | | | | | | | | |
| 9F 12 | | | 61 | 65 | 73 | 74 | 72 | 6F | 20 | 20 | 20 | 20 | 20 |
| 95 12 | Application Preferred Name | | 20 | | | | | OL | 20 | 20 | 20 | 20 | 20 |
| 9F 14 | Counter 1 Lower Limit [Mastercard] | 00 | | | | 1400 | | | | | | | |
| 9F 17 | Personal Identification Number (PIN) | 03 | | | | | | | | | | | |
| 01 17 | Try Counter | | | | | | | | | | | | |
| 9F 23 | Counter 1 Upper Limit [Mastercard] | 00 | | | | | | | | | | | |
| 9F 26 | Application Cryptogram (AC) | | vv | vv | vv | vv | xx | vv | vv | * | | | |
| | | 80 | | | | | ^^ | | | | | | |
| 9F 27 | Cryptogram Information Data (CID) | | xx | + | | | | | | | | | |
| 9F 36 | Application Transaction Counter (ATC) | | 40 | | <u>en</u> | | | | | | | | |
| 9F 42 | Application Currency Code | | 0A | - 0 | SD | | | | | | | | |
| 9F 4D | Transaction Log Entry | | | 01 | ΩE | 02 | 06 | 5 E | 27 | 02 | 0.70 | 0.3 | 0E |
| 9F 4F | Transaction Log Format | | | | | | DF | | | | | | |
| | | | 14 | 7. | J_ | 00 | | 20 | - | 71 | | 03 | 71 |
| 9F 7E | Application Life Cycle Data [Mastercard] | 04 | 10 | 0в | 14 | 00 | 01 | 00 | 00 | 50 | 17 | 79 | 00 |
| 0. 7 | Application Elio Oyolo Bata [Madtordara] | A 0 | 00 | 00 | 00 | 04 | 30 | 60 | 00 | 00 | 00 | 00 | 00 |
| | | 00 | 00 | 00 | 00 | 00 | 80 | 00 | 88 | 01 | 06 | Α5 | 5A |
| | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| C3 | Card Issuer Action Code (Contact) - | 00 | 00 | 00 | | | | | | | | | |
| | Decline [M/Chip Advance] | | | | | | | | | | | | |
| C4 | Card Issuer Action Code (Contact) - | 1F | 50 | 00 | | | | | | | | | |
| | Default [M/Chip Advance] | | | | | | | | | | | | |
| C5 | Card Issuer Action Code (Contact) - | 3 F | FB | 00 | | | | | | | | | |
| | Online [M/Chip Advance] | | | | | | | | | | | | |
| C6 | PIN Try Limit [M/Chip Advance] | 03 | | | | | | | | | | | |
| C7 | CDOL1 Related Data Length | 42 | | | | | | | | | | | |
| | [Mastercard] | | | | | | | | | | | | |
| C8 | CRM Country Code [Mastercard] | 08 | 40 | - U | SA | | | | | | | | |
| C9 | Accumulator 1 Currency Code | | 40 | | | | | | | | | | |
| | [Mastercard] | | | | | | | | | | | | |
| CA | Accumulator 1 Lower Limit [Mastercard] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| СВ | Accumulator 1 Upper Limit [Mastercard] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| CD | Card Issuer Action Code (Contactless) - | 06 | 50 | 00 | | | | | | | | | |
| | Default [M/Chip Advance] | | | | | | | | | | | | |
| CE | Card Issuer Action Code (Contactless) - | 06 | FB | 00 | | | | | | | | | |
| | | | | | | | | | | | | | |
| 0_ | Online [M/Chip Advance] | | | | | | | | | | | | |
| CF | Online [M/Chip Advance] Card Issuer Action Code (Contactless) - | 00 | 00 | 00 | | | | | | | | | |



| Tag | Element name | Da | ta | | | | | | | | | V | 4.0 |
|-------|--|----|----|----|----|----|----|----|----|----|----|----|-----|
| D1 | Accumulator 1 Currency Conversion | | | 00 | 00 | 00 | 08 | 40 | 00 | 00 | 00 | 08 | |
| | Table [Mastercard] | | | | | | 00 | | | | | | |
| | Table [Masterbara] | 00 | | | | | | | | | | | |
| D3 | Additional Check Table [Mastercard] | 00 | 00 | 00 | FF |
| | - | | | | | FF | | | | | | | |
| D5 | Application Control [M/Chip Advance] | | | 80 | 00 | C6 | 02 | | | | | | |
| D6 | Default ARPC Response Code [M/Chip | 00 | 10 | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| D7 | Application Control [M/Chip Advance] | 80 | 00 | 80 | 00 | С6 | 02 | | | | | | |
| D9 | Application File Locator (Contactless) | 08 | 01 | 01 | 00 | 80 | 03 | 03 | 00 | | | | |
| DE | Log Data Table [M/Chip Advance] | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | | |
| DF 02 | Security Limits Status (Contact) [M/Chip | 00 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 11 | Accumulator 1 Control (Contact) | C1 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 12 | Accumulator 1 Control (Contactless) | C1 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 14 | Accumulator 2 Control (Contact) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 15 | Accumulator 2 Control (Contactless) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 16 | Accumulator 2 Currency Code | 09 | 99 | | | | | | | | | | |
| | [Mastercard] | | | | | | | | | | | | |
| DF 17 | Accumulator 2 Currency Conversion | 09 | 99 | 00 | 00 | 00 | 09 | 99 | 00 | 00 | 00 | 09 | 99 |
| | Table [Mastercard] | 00 | 00 | 00 | 09 | 99 | 00 | 00 | 00 | 09 | 99 | 00 | 00 |
| | | 00 | | | | | | | | | | | |
| DF 18 | Accumulator 2 Lower Limit [Mastercard] | | | | | 00 | | | | | | | |
| DF 19 | Accumulator 2 Upper Limit [Mastercard] | | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DF 1A | Counter 1 Control (Contact) [M/Chip | C1 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 1B | Counter 1 Control (Contactless) [M/Chip | C1 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 1D | Counter 2 Control (Contact) [M/Chip | 00 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 1E | Counter 2 Control (Contactless) [M/Chip | 00 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 1F | Counter 2 Lower Limit [Mastercard] | 00 | | | | | | | | | | | |
| DF 21 | Counter 2 Upper Limit [Mastercard] | 00 | | | | | | | | | | | |
| DF 22 | MTA CVM (Contact) [M/Chip Advance] | | | | | 00 | | | | | | | |
| DF 23 | MTA CVM (Contactless) [M/Chip | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 24 | MTA Currency Code [M/Chip Advance] | | 40 | | | | | | | | | | |
| DF 25 | MTA NoCVM (Contact) [M/Chip | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 26 | MTA NoCVM (Contactless) [M/Chip | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 27 | Number Of Days Offline Limit [M/Chip | 00 | 00 | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 28 | Accumulator 1 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| | (Contact) [M/Chip Advance] | | | | | | | | | | | | |
| DF 29 | Accumulator 1 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| | (Contactless) [M/Chip Advance] | | | | | | | | | | | | |
| DF 2A | Accumulator 2 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| | (Contact) [M/Chip Advance] | | | | | | | | | | | | |
| DF 2B | Accumulator 2 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| | (Contactless) [M/Chip Advance] | | | | | | | | | | | | |
| DF 2C | Counter 1 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| | (Contact) [M/Chip Advance] | | | | | | | | | | | | |



| 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

| | | rag value changes with bara asage |
|-------|-------------------------------------|-------------------------------------|
| 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 | 67 99 99 89 00 00 02 00 05 1F |
| | (PAN) | |
| 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 - 'US' |



| Application Interchange Profile | Tag | Element name | Data v4.0 |
|---|-------|---------------------------------------|---|
| BYTE 1: | 82 | Application Interchange Profile | 18 00 |
| b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authenticate command b1 - Combined DDA / GEN AC 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 Application Priority Indicator O3 - Application Priority Indicator O3 - Application Priority Indicator O5 - In Not Mobile phone O5 - In Not Mobile phone O6 - O6 - O7 - In Not Mobile phone O7 - Is NOT Mobile phone O7 - In Not Mobile phone O7 | | | |
| b5 - Cardholder verification supported bd - Terminal risk mgmt to be performed bd - | | | |
| bd - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command 11 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported NOT support Mag-stripe mode NOT supported NOT support Mag-stripe mode NOT supported NOT support Mag-stripe mode NOT support Mag-stripe mode NOT support Mag-stripe mode NOT support Mag-stripe mode NOT support M | | | |
| 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 A0 00 00 00 00 00 00 00 00 00 00 00 00 | | | |
| External Authenticate command bit - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported by - Is NOT Mobile phone A0 00 00 00 04 22 03 Application Priority Indicator O3 Card Risk Management Data Object List 1 (CDOL1) | | | |
| b1 - Combined DDA / GEN AC NOT supported BYTE 2: 88 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone | | | |
| BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone B8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone B8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone B8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone B8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone B9 - B1 - B1 - B2 - B3 - B3 - B3 - B3 - B4 - B3 - B4 - B4 | | | |
| B7 - Is NOT Mobile phone Record R | | | • |
| Bed Dedicated File (DF) Name A0 | | | b8 - Mag-stripe mode NOT supported |
| Application Priority Indicator 03 2 2 2 3 6 9 1 1 02 9 5 5 5 5 5 5 1 1 1 1 | | | |
| Second Card Risk Management Data Object List 1 (CDOL1) | | ` ' | |
| 1 (CDOL1) 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 | | | |
| SP | 8C | | |
| SD | | 1 (CDOL1) | |
| 2 (CDOL2) 8E | | | |
| 2 (CDOL2) 8E | 8D | Card Risk Management Data Object List | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| Cardholder Verification Method (CVM) List | - : | | |
| List | 8E | | 00 00 00 00 00 00 00 00 02 05 42 03 |
| Application File Locator (AFL) | | ` , | 1F 03 00 00 00 00 |
| Application Usage Control FF C0 BYTE 1: | 94 | | |
| 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 b3 - International services valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - | 94 | | |
| b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b8 - International cashback allowed b8 - International cashback allowed b9 - Denial b1 - Denial b2 - ATMS valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b8 - International cashback allowed b9 - Denial b2 - ATMS valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback | 9F 07 | Application Usage Control | |
| b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed | | | 1 |
| b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b8 - Domestic cashback allowed b7 - International cashback allowed b7 - I | | | |
| b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashbac | | | |
| b4 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b8 - Domestic cashback allowed b7 - International cashback allowed b8 - Domestic cashback allowed b7 - International cashback allowed b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b8 - International cashback allowed b7 - International cashback allowed | | | |
| b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - In | | | |
| b1-Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - USD b9 5 2 0 6 DF 2a 02 9a 03 9a | | | b3 - International services valid |
| BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b8 00 000 00 00 00 00 00 00 00 00 00 00 0 | | | b2 - ATMs valid |
| b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed 9F 0B Application Code - Default B0 50 9C 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 9C 98 00 9F 10 Issuer Application Data [M/Chip xx xx xx xx xx xx xx | | | |
| 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 | | | |
| Second S | 0F 08 | Application Version Number | |
| 9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 9C 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx xx 40 xx | | | |
| 9F 0F Issuer Action Code - Online B0 70 9C 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx xx A0 xx | | | 00 00 00 00 00 |
| Suer Application Data [M/Chip XX X | 9F 0F | | B0 70 9C 98 00 |
| Advance] | 9F 10 | | xx xx A0 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 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx | | | xx xx xx xx xx * |
| Maestro' 9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 17 Personal Identification Number (PIN) Try Counter 00 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx x | 9F 11 | | 01 |
| 9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 17 Personal Identification Number (PIN) 03 Try Counter 00 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx xx xx xx 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 9E 36 02 9F 52 06 DF 3E 01 9F 21 03 9E | 9F 12 | Application Preferred Name | |
| 9F 17 Personal Identification Number (PIN) | OF 1: | | |
| Try Counter 9F 23 | | | |
| 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx | 9F 1/ | | 03 |
| 9F 26 Application Cryptogram (AC) xx | 0E 22 | | 00 |
| 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx xx * 9F 42 Application Currency Code 08 40 - USD 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9E 36 02 9F 52 06 DF 3E 01 9F 21 03 9E | | | |
| 9F 36 Application Transaction Counter (ATC) xx xx * 9F 42 Application Currency Code 08 40 - USD 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | , , , , , , , , , , , , , , , , , , , | |
| 9F 42 Application Currency Code 08 40 - USD 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 9F 4D Transaction Log Entry 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| | 9F 4F | Transaction Log Format | |
| lacksquare | | | |
| | | | 7C 14 |



| T | Florestone | | 1 - | | | | | | | | | | 4.0 |
|----------|--|----------|-----|-----|-----|----|----|-----|-----|-----|-----|----|-----|
| Tag | Element name | Da | | 0 D | 1.4 | 00 | 01 | 00 | 00 | - A | 17 | ٠, | 4.0 |
| 9F 7E | Application Life Cycle Data [Mastercard] | | | | | | 01 | | | | | 79 | |
| | | | | | | 00 | 30 | | | 01 | | | |
| | | | | | | | 00 | | | | | | |
| C3 | Card Issuer Action Code (Contact) - | | 00 | | | | | - | | | - | | - |
| CS | Decline [M/Chip Advance] | | 00 | 00 | | | | | | | | | |
| C4 | | 06 | 50 | 00 | | | | | | | | | |
| C4 | Card Issuer Action Code (Contact) - | 00 | 50 | 00 | | | | | | | | | |
| | Default [M/Chip Advance] | 0.0 | | | | | | | | | | | |
| C5 | Card Issuer Action Code (Contact) - | 06 | FB | 00 | | | | | | | | | |
| | Online [M/Chip Advance] | 00 | | | | | | | | | | | |
| C6 | PIN Try Limit [M/Chip Advance] | 03 | | | | | | | | | | | |
| C7 | CDOL1 Related Data Length | 42 | | | | | | | | | | | |
| | [Mastercard] | | | | | | | | | | | | |
| C8 | CRM Country Code [Mastercard] | 08 | 40 | - U | SA | | | | | | | | |
| C9 | Accumulator 1 Currency Code | 08 | 40 | - U | SD | | | | | | | | |
| <u> </u> | [Mastercard] | <u>L</u> | | | | | | | | | | | |
| CA | Accumulator 1 Lower Limit [Mastercard] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| СВ | Accumulator 1 Upper Limit [Mastercard] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| CD | Card Issuer Action Code (Contactless) - | 06 | 50 | 00 | | | | | | | | | |
| | Default [M/Chip Advance] | | | | | | | | | | | | |
| CE | Card Issuer Action Code (Contactless) - | 06 | FB | 00 | | | | | | | | | |
| <u> </u> | Online [M/Chip Advance] | | _ | | | | | | | | | | |
| CF | Card Issuer Action Code (Contactless) - | 0.0 | 00 | 0.0 | | | | | | | | | |
| Ci | Decline [M/Chip Advance] | | • | • | | | | | | | | | |
| D1 | | ΛR | 40 | 00 | ٥٥ | 00 | 08 | 40 | 00 | 00 | 00 | ΛQ | 40 |
| וט | Accumulator 1 Currency Conversion | | | | | | 00 | | | | | | |
| | Table [Mastercard] | 00 | 00 | 00 | 00 | | 00 | 00 | 00 | 00 | -10 | 00 | 00 |
| D3 | Additional Check Table [Mastercard] | 00 | 00 | 00 | FF | FF | FF | FF | FF | FF | FF | FF | FF |
| D0 | Additional Official Table [Masteroara] | FF | FF | FF | FF | FF | FF | | | | | | |
| D5 | Application Control [M/Chip Advance] | 80 | 00 | 80 | 00 | С6 | 02 | | | | | | |
| D6 | Default ARPC Response Code [M/Chip | 00 | 10 | | | | | | | | | | |
| | Advance | | | | | | | | | | | | |
| D7 | Application Control [M/Chip Advance] | 80 | 00 | 80 | 00 | С6 | 02 | | | | | | |
| D9 | Application File Locator (Contactless) | 08 | 01 | 01 | 00 | 08 | 03 | 03 | 00 | | | | |
| DE | Log Data Table [M/Chip Advance] | 0.0 | 00 | | 00 | 00 | 00 | 0.0 | 0.0 | 00 | | | |
| DF 02 | Security Limits Status (Contact) [M/Chip | 00 | | | | | | | | | | | |
| D1 02 | Advance] | | | | | | | | | | | | |
| DE 11 | | C1 | | | | | | | | | | | |
| DF 11 | Accumulator 1 Control (Contact) | 01 | | | | | | | | | | | |
| DE 40 | [M/Chip Advance] | C1 | | | | | | | | | | | |
| DF 12 | Accumulator 1 Control (Contactless) | C1 | | | | | | | | | | | |
| DE | [M/Chip Advance] | ^^ | | | | | | | | | | | |
| DF 14 | Accumulator 2 Control (Contact) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 15 | Accumulator 2 Control (Contactless) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 16 | Accumulator 2 Currency Code | 09 | 99 | | | | | | | | | | |
| | [Mastercard] | <u></u> | | | | | | | | | | | |
| DF 17 | Accumulator 2 Currency Conversion | | | | | | 09 | | | | | | |
| | Table [Mastercard] | | 00 | 00 | 09 | 99 | 00 | 00 | 00 | 09 | 99 | 00 | 00 |
| | | 00 | | | • | | | | | | | | |
| DF 18 | Accumulator 2 Lower Limit [Mastercard] | | | | | 00 | | | | | | | |
| DF 19 | Accumulator 2 Upper Limit [Mastercard] | | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DF 1A | Counter 1 Control (Contact) [M/Chip | C1 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 1B | Counter 1 Control (Contactless) [M/Chip | C1 | _ | _ | _ | _ | | _ | _ | _ | _ | _ | |
| | Advance] | L | | | | | | | | | | | |
| DF 1D | Counter 2 Control (Contact) [M/Chip | 00 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| | | | | | | | | | | | | | |



| Tag | Element name | Data v4.0 |
|--------|--|-------------------|
| DF 1E | Counter 2 Control (Contactless) [M/Chip | 00 |
| | Advance] | |
| DF 1F | Counter 2 Lower Limit [Mastercard] | 00 |
| DF 21 | Counter 2 Upper Limit [Mastercard] | 00 |
| DF 22 | MTA CVM (Contact) [M/Chip Advance] | 00 00 00 00 00 |
| DF 23 | MTA CVM (Contactless) [M/Chip | 00 00 00 00 00 00 |
| | Advance] | |
| DF 24 | MTA Currency Code [M/Chip Advance] | 08 40 - USD |
| DF 25 | MTA NoCVM (Contact) [M/Chip | 00 00 00 00 00 00 |
| | Advance] | |
| DF 26 | MTA NoCVM (Contactless) [M/Chip | 00 00 00 00 00 00 |
| DE 07 | Advance] | 00.00 |
| DF 27 | Number Of Days Offline Limit [M/Chip | 00 00 |
| DE 20 | Advance] | 00 00 00 |
| DF 28 | Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] | 00 00 00 |
| DF 29 | Accumulator 1 CVR Dependency Data | 00 00 00 |
| D1 23 | (Contactless) [M/Chip Advance] | |
| DF 2A | Accumulator 2 CVR Dependency Data | 00 00 00 |
| D1 2/1 | (Contact) [M/Chip Advance] | |
| DF 2B | Accumulator 2 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 2C | Counter 1 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 2D | Counter 1 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 2E | Counter 2 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 2F | Counter 2 CVR Dependency Data | 00 00 00 |
| DE 00 | (Contactless) [M/Chip Advance] | 01 |
| DF 30 | Interface Enabling Switch [M/Chip | 01 |
| DF 35 | Advance] Security Limits Status (Contactless) | 00 |
| DF 33 | [M/Chip Advance] | |
| DF 37 | Security Limits Status Common [M/Chip | 00 |
| Di 37 | Advance] | |
| DF 3C | CVR Issuer Discretionary Data | 00 |
| | (Contact) [M/Chip Advance] | |
| DF 3D | CVR Issuer Discretionary Data | 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 3F | Read Record Filter (Contact) [M/Chip | 00 |
| | Advance] | |
| DF 40 | Read Record Filter (Contactless) | 00 |
| | [M/Chip Advance] | |
| DF 41 | DS Management Control [M/Chip | 20 |
| | Advance] | |



4.10 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

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

4.10.2 Contact: Application Tag data, AID A0000000043060

| 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 |
| | Application Education | MAESTRO' |
| 57 | Track 2 Equivalent Data | 54 13 33 00 89 09 91 30 D2 21 22 20 |
| | • | 08 08 10 79 00 00 OF |
| 5A | Application Primary Account Number (PAN) | 54 13 33 00 89 09 91 30 |
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 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 - 'US' |
| 82 | Application Interchange Profile [M/Chip, PayPass] | BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported 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 |
| 91 07 | Application Usage Control | BYTE 1: |
| | | b8 - Domestic cash transactions valid |
| | | b7 - Int'l cash transactions valid |
| | | b6 - Domestic goods valid |
| | | b5 - International goods valid |
| | | b4 - Domestic services valid b3 - International services valid |
| | | b2 - ATMs valid |
| | | b1- Terminals other than ATMs valid |
| | | BYTE 2: |
| | | b8 - Domestic cashback 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 |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 12 | Application Preferred Name | 55 53 20 4D 61 65 73 74 72 6F - 'US |
| 0 | 7. 19. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10 | Maestro' |
| 9F 14 | Lower Consecutive Offline Limit | 00 |
| 9F 17 | Personal Identification Number (PIN) | 01 |
| | Try Counter | |
| 9F 1F | Track 1 Discretionary Data | 30 36 32 39 33 30 34 32 33 30 30 30 |
| | | 30 30 30 30 30 30 30 30 30 30 30 30 |
| 9F 23 | Upper Consecutive Offline Limit | 00 |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 32 | Issuer Public Key Exponent | 03 |
| 9F 36 | Application Transaction Counter (ATC) | 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 OF 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 |
| | | 1 |



| Tag | Element name | Data | v4.0 |
|----------|---|-------------------------------|----------|
| 9F 48 | ICC Public Key Remainder | 58 BB 79 E5 33 12 54 E2 90 1 | F 8F 61 |
| | , | 64 82 20 8A 49 D5 34 33 D3 C | |
| | | B8 C2 F7 E7 42 C5 F6 C9 72 9 | 0A 0E 21 |
| 05.40 | Daniel Data Authorities Data | 4F 62 DE 11 F8 3F 9F 37 04 | |
| 9F 49 | Dynamic Data Authentication Data | 9F 37 04 | |
| 05.44 | Object List (DDOL) | 82 | |
| 9F 4A | Static Data Authentication Tag List | 0B 0A | |
| 9F 4D | Transaction Log Entry | 9F 27 01 9F 02 06 5F 2A 02 9 | NA 02 0E |
| 9F 4F | Transaction Log Format | 36 02 9F 52 06 | A U3 9F |
| 9F 7E | Application Life Cycle Data [Mastercard] | 03 10 0C 12 00 09 00 00 FF F | F FF FF |
| 31 7 L | Application Life Oyele Data [Mastercard] | FF FF FF FF FF FF FF FF FF | |
| | | FF FF FF FF 00 04 00 00 02 6 | 50 00 00 |
| | | 38 4A 02 11 50 35 43 44 30 3 | 37 32 20 |
| C3 | Card Issuer Action Code - Decline | 00 00 00 | |
| | [Mastercard] | | |
| C4 | Card Issuer Action Code - Default | 06 50 00 | |
| | [Mastercard] | | |
| C5 | Card Issuer Action Code - Online | 06 FB 00 | |
| | [Mastercard] | | |
| C6 | Counters [Mastercard] | 00 02 00 00 00 00 00 00 00 | 00 |
| C7 | CDOL1 Related Data Length | 2в | |
| | [Mastercard] | | |
| C8 | CRM Country Code [Mastercard] | 08 40 - USA | |
| C9 | CRM Currency Code [M/Chip4] | 08 40 - USD | |
| CA | Lower Cumulative Offline Transaction | 00 00 00 00 00 | |
| | Amount [M/Chip] | 20 00 00 00 00 | |
| СВ | Upper Cumulative Offline Transaction | 00 00 00 00 00 | |
| 00 | Amount [M/Chip] | 00 58 00 | |
| CD | Card Issuer Action Code - Default | 00 58 00 | |
| <u> </u> | [PayPass M/Chip] | 00 F8 00 | |
| CE | Card Issuer Action Code - Online | 00 F8 00 | |
| <u> </u> | [PayPass M/Chip] | 08 00 00 | |
| CF | Card Issuer Action Code - Denial | 08 00 00 | |
| D1 | [PayPass M/Chip] Currency Conversion Table [M/Chip] | 08 40 00 00 00 08 40 00 00 0 | 00 08 40 |
| וטו | Currency Conversion Table [M/Cnip] | 00 00 00 08 40 00 00 00 08 4 | |
| | | 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 | 00 10 | |
| | [M/Chip4] | | |
| 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

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

4.11.2 Contact: Application Tag data, AID A0000000041010

| 一 二。 | Element nems | rag 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 Drimony Assount Number | 54 13 33 00 89 02 00 60 |
| 5A | Application Primary Account Number (PAN) | 34 13 33 00 89 02 00 00 |
| 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 - '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 | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| | | 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 |
| | | 9F 7C 14 |



| Tag | Element name | Data | а | | | | | | | | | V | 4.0 |
|----------------|--|--------------|-----|------|-------|-------|--------|------|-------|-------|----|----|-----|
| 8D | Card Risk Management Data Object List | 91 | | 8A | 02 | 95 | 05 | 9F | 37 | 04 | 9F | 4C | 08 |
| | 2 (CDOL2) | | | | | | | | | | | | |
| 8E | Cardholder Verification Method (CVM) | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 02 | 05 | 41 | 03 |
| | List | 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 | | | | | | | | | | |
| | 77 | BYT | E 1 | : | | | | | | | | | |
| | | b8 - | | | | | | | | val | id | | |
| | | b7 - | | | | | | _ | /alid | | | | |
| | | b6 - | | | | | | | اہ | | | | |
| | | b5 - b4 - | | | | | | | | | | | |
| | | b3 - | | | | | | | | | | | |
| | | b2 - | | | | | J. V.O | | unu | | | | |
| | | b1- | Ter | mina | als c | ther | tha | n AT | Ms | valio | t | | |
| | | BYT | | | | | | | | | | | |
| | | b8 - | | | | | | | | | | | |
| 05.00 | A 1' (') A 1 | b7 - | | erna | tion | al ca | ashb | ack | allo | wed | | | |
| 9F 08 | Application Version Number | | _ | | | | | | | | | | |
| 9F 0D | Issuer Action Code - Default | В0 | | | | | | | | | | | |
| 9F 0E | Issuer Action Code - Denial | 00 B0 | | | | | | | | | | | |
| 9F 0F | Issuer Action Code - Online | | | | | | | | | | | | |
| 9F 10 | Issuer Application Data [M/Chip | xx : | | | | | | | ХX | ХX | ХX | ХX | хх |
| | Advance] | XX | хх | xx | XX | xx | XX | ^ | | | | | |
| 9F 11 | Issuer Code Table Index | 01 | | | | | | | | | | | |
| 9F 12 | Application Preferred Name | 4D | | | | | | | | | | 20 | 44 |
| 05.44 | Country 4 Laurer Limit [Mastersand] | 65 00 | 62 | 69 | /4 | - IV | าลรเ | erca | Ia D | ebit | | | |
| 9F 14 9F 17 | Counter 1 Lower Limit [Mastercard] | 09 | | | | | | | | | | | |
| 91 17 | Personal Identification Number (PIN) Try Counter | | | | | | | | | | | | |
| 9F 23 | Counter 1 Upper Limit [Mastercard] | 00 | | | | | | | | | | | |
| 9F 26 | Application Cryptogram (AC) | xx : | хx | хx | хx | хx | хx | хx | хx | * | | | |
| 9F 27 | Cryptogram Information Data (CID) | 80 | | | | | | | | | | | |
| 9F 36 | Application Transaction Counter (ATC) | xx : | хx | * | | | | | | | | | |
| 9F 42 | Application Currency Code | 80 | 40 | - U | SD | | | | | | | | |
| 9F 4D | Transaction Log Entry | 0B | 0A | | | | | | | | | | |
| 9F 4F | Transaction Log Format | 9F | | | | | | | | | | | |
| | | 36 | | 9F | 52 | 06 | DF | 3E | 01 | 9F | 21 | 03 | 9F |
| 05.75 | Application Life Cycle Date [Mastercord] | 7C 04 | | Λъ | 1 / | 00 | 01 | 00 | 00 | 50 | 17 | 70 | 00 |
| 9F 7E | Application Life Cycle Data [Mastercard] | A0 | | | | | | | | | | | |
| | | 00 | | | | | | | | | | | |
| | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| C3 | Card Issuer Action Code (Contact) - | 00 | 00 | 00 | | | | | | | | | |
| | Decline [M/Chip Advance] | | | | | | | | | | | | |
| C4 | Card Issuer Action Code (Contact) - | 06 | 00 | 00 | | | | | | | | | |
| | Default [M/Chip Advance] | | | | | | | | | | | | |
| C5 | Card Issuer Action Code (Contact) - | 3F | FB | 00 | | | | | | | | | _ |
| | Online [M/Chip Advance] | | | | | | | | | | | | |
| C6 | PIN Try Limit [M/Chip Advance] | 09 | | | | | | | | | | | |
| C7 | CDOL1 Related Data Length | 42 | | | | | | | | | | | |
| | [Mastercard] | | | | | | | | | | | | |
| C8 | CRM Country Code [Mastercard] | 08 | | | | | | | | | | | |
| | | | | - 11 | CD. | | | | | | | | |
| C9 | Accumulator 1 Currency Code | 08 | 40 | - 0 | SD | | | | | | | | |
| C9 | [Mastercard] | | | | | | | | | | | | |
| | | 00 | 00 | 00 | 00 | | | | | | | | |



| Tag | Element name | Da | ta | | | | | | | | | V | 4.0 |
|-------|--|----|-----|-----|-----|-----|----|----|----|-----|-----|----|-----|
| CD | Card Issuer Action Code (Contactless) - | | 50 | 00 | | | | | | | | | |
| | Default [M/Chip Advance] | | | | | | | | | | | | |
| CE | Card Issuer Action Code (Contactless) - | 06 | FB | 00 | | | | | | | | | |
| | Online [M/Chip Advance] | | | | | | | | | | | | |
| CF | Card Issuer Action Code (Contactless) - | 00 | 00 | 00 | | | | | | | | | |
| | Decline [M/Chip Advance] | | | | | | | | | | | | |
| D1 | Accumulator 1 Currency Conversion | | | | | | | | 00 | | | | |
| | Table [Mastercard] | 00 | 00 | 00 | 08 | 40 | 00 | 00 | 00 | 08 | 40 | 00 | 00 |
| D3 | Additional Check Table [Mastercard] | | 00 | 00 | FF | FF | FF | FF | FF | FF | FF | FF | FF |
| | Tadia en en en cara [maciereara] | FF | FF | FF | FF | FF | FF | | | | | | |
| D5 | Application Control [M/Chip Advance] | | | 80 | 00 | C6 | 02 | | | | | | |
| D6 | Default ARPC Response Code [M/Chip | 00 | 10 | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| D7 | Application Control [M/Chip Advance] | 80 | | | | С6 | | | | | | | |
| D9 | Application File Locator (Contactless) | | | 01 | | | 03 | | | | | | |
| DE | Log Data Table [M/Chip Advance] | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | | |
| DF 02 | Security Limits Status (Contact) [M/Chip | 00 | | | | | | | | | | | |
| DF 11 | Advance] Accumulator 1 Control (Contact) | C1 | | | | | | | | | | | |
| וווט | [M/Chip Advance] | | | | | | | | | | | | |
| DF 12 | Accumulator 1 Control (Contactless) | C1 | | | | | | | | | | | |
| J. 12 | [M/Chip Advance] | | | | | | | | | | | | |
| DF 14 | Accumulator 2 Control (Contact) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 15 | Accumulator 2 Control (Contactless) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 16 | Accumulator 2 Currency Code | 09 | 99 | | | | | | | | | | |
| 55.45 | [Mastercard] | | | 00 | | 00 | | | | | | | |
| DF 17 | Accumulator 2 Currency Conversion | | | | | | | | 00 | | | | |
| | Table [Mastercard] | 00 | • | | 0,5 | ,,, | • | • | | 0,5 | ,,, | • | |
| DF 18 | Accumulator 2 Lower Limit [Mastercard] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DF 19 | Accumulator 2 Upper Limit [Mastercard] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DF 1A | Counter 1 Control (Contact) [M/Chip | C1 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 1B | Counter 1 Control (Contactless) [M/Chip | C1 | | | | | | | | | | | |
| DE 4D | Advance] | 00 | | | | | | | | | | | |
| DF 1D | Counter 2 Control (Contact) [M/Chip | 00 | | | | | | | | | | | |
| DF 1E | Advance] Counter 2 Control (Contactless) [M/Chip | 00 | | | | | | | | | | | |
| DI IL | Advance] | | | | | | | | | | | | |
| DF 1F | Counter 2 Lower Limit [Mastercard] | 00 | | | | | | | | | | | |
| DF 21 | Counter 2 Upper Limit [Mastercard] | 00 | | | | | | | | | | | |
| DF 22 | MTA CVM (Contact) [M/Chip Advance] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DF 23 | MTA CVM (Contactless) [M/Chip | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 24 | MTA Currency Code [M/Chip Advance] | | | - U | | | | | | | | | |
| DF 25 | MTA NoCVM (Contact) [M/Chip | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DE 00 | Advance] | | 00 | 00 | ^^ | 00 | 00 | | | | | | |
| DF 26 | MTA NoCVM (Contactless) [M/Chip | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DE 07 | Advance] | 00 | 00 | | | | | | | | | | |
| DF 27 | Number Of Days Offline Limit [M/Chip Advance] | 00 | 00 | | | | | | | | | | |
| DF 28 | Accumulator 1 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| 51 20 | (Contact) [M/Chip Advance] | | - • | - • | | | | | | | | | |
| DF 29 | Accumulator 1 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| | (Contactless) [M/Chip Advance] | | | | | | | | | | | | |



| Tag | Element name | Data v4.0 |
|-------|---------------------------------------|-----------|
| DF 2A | Accumulator 2 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 2B | Accumulator 2 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 2C | Counter 1 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 2D | Counter 1 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 2E | Counter 2 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 2F | Counter 2 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 30 | Interface Enabling Switch [M/Chip | 01 |
| | Advance] | |
| DF 35 | Security Limits Status (Contactless) | 00 |
| | [M/Chip Advance] | |
| DF 37 | Security Limits Status Common [M/Chip | 00 |
| | Advance] | |
| DF 3C | CVR Issuer Discretionary Data | 00 |
| DE OB | (Contact) [M/Chip Advance] | 00 |
| DF 3D | CVR Issuer Discretionary Data | 00 |
| DE OF | (Contactless) [M/Chip Advance] | 00 |
| DF 3F | Read Record Filter (Contact) [M/Chip | 00 |
| DE 40 | Advance] | 00 |
| DF 40 | Read Record Filter (Contactless) | 00 |
| DE 44 | [M/Chip Advance] | 20 |
| DF 41 | DS Management Control [M/Chip | 20 |
| | Advance] | |

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 | 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 OF |
| 5A | Application Primary Account Number | 54 13 33 00 89 02 00 60 |
| | (PAN) | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 65 62 69 74 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 31 31 20 20 |
| | | 20 20 - 'USA DEBIT/Test Card 11' |
| 5F 24 | Application Expiration Date | 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 82 84 87 | Issuer Country Code (alpha2 format) Application Interchange Profile Dedicated File (DF) Name Application Priority Indicator | 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 A0 00 00 00 04 22 03 01 |
| 8C | Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 |
| 8D | Card Risk Management Data Object List 2 (CDOL2) | 91 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 |
| | | 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 xx xx A0 xx xx xx xx xx xx xx xx xx |
| 9F 10 | Issuer Application Data [M/Chip Advance] | xx xx xx xx xx x * |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 12 | Application Preferred Name | 55 53 20 43 68 65 63 6B 69 6E 67 20 20 20 20 - 'US Checking' |
| 9F 14 | Counter 1 Lower Limit [Mastercard] | 00 |
| 9F 17 | Personal Identification Number (PIN) Try Counter | 09 |
| 9F 23 | Counter 1 Upper Limit [Mastercard] | 00 |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 42 | Application Currency Code | 08 40 - USD |
| 9F 4D | Transaction Log Entry | OB OA |
| 9F 4F | Transaction Log Format | 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14 |



| T | Florestone | | 1 - | | | | | | | | | | 4.0 |
|----------|--|-----|-----|-------------|-----|----|-----|----|-----|----------|----|----|-----|
| Tag | Element name | Dat | | 0. D | 1.4 | 00 | 01 | 00 | 00 | - A | 17 | • | 4.0 |
| 9F 7E | Application Life Cycle Data [Mastercard] | | | | | | | | | 50 | | 79 | |
| | | | | | | 00 | | | | 00 01 | | | |
| | | | | | | | | | | 00 | | | |
| C3 | Card Issuer Action Code (Contact) - | | 00 | | - | - | - | - | | | - | | |
| CS | Decline [M/Chip Advance] | | 00 | 00 | | | | | | | | | |
| C4 | | 0.6 | 50 | 00 | | | | | | | | | |
| C4 | Card Issuer Action Code (Contact) - | 00 | 50 | 00 | | | | | | | | | |
| | Default [M/Chip Advance] | 0.0 | | ~ ~ | | | | | | | | | |
| C5 | Card Issuer Action Code (Contact) - | 06 | FB | UU | | | | | | | | | |
| | Online [M/Chip Advance] | 00 | | | | | | | | | | | |
| C6 | PIN Try Limit [M/Chip Advance] | 09 | | | | | | | | | | | |
| C7 | CDOL1 Related Data Length | 42 | | | | | | | | | | | |
| | [Mastercard] | | | | | | | | | | | | |
| C8 | CRM Country Code [Mastercard] | 08 | 40 | - U | SA | | | | | | | | |
| C9 | Accumulator 1 Currency Code | 80 | 40 | - U | SD | | | | | | | | |
| | [Mastercard] | | | | | | | | | | | | |
| CA | Accumulator 1 Lower Limit [Mastercard] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| СВ | Accumulator 1 Upper Limit [Mastercard] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| CD | Card Issuer Action Code (Contactless) - | 06 | 50 | 00 | | | | | | | | | |
| | Default [M/Chip Advance] | | | | | | | | | | | | |
| CE | Card Issuer Action Code (Contactless) - | 06 | FB | 00 | | | | | | | | | |
| | Online [M/Chip Advance] | | _ | | | | | | | | | | |
| CF | Card Issuer Action Code (Contactless) - | 00 | 00 | 00 | | | | | | | | | |
| CF | | | 00 | 00 | | | | | | | | | |
| D4 | Decline [M/Chip Advance] | 00 | 40 | 00 | 00 | 00 | 00 | 40 | 00 | 00 | 00 | 00 | 40 |
| D1 | Accumulator 1 Currency Conversion | | | | | | | | | 08 | | | |
| | Table [Mastercard] | 00 | 00 | 00 | 00 | 40 | 00 | 00 | 00 | 00 | | 00 | 00 |
| D3 | Additional Check Table [Mastercard] | 00 | 00 | 00 | FF | FF | FF | FF | FF | FF | FF | FF | FF |
| D3 | Additional officer Table [Mastercard] | FF | | | | FF | | | | | | | |
| D5 | Application Control [M/Chip Advance] | 80 | 00 | 80 | 00 | С6 | 02 | | | | | | |
| D6 | Default ARPC Response Code [M/Chip | 00 | 10 | | | | | | | | | | |
| 20 | Advance] | | | | | | | | | | | | |
| D7 | Application Control [M/Chip Advance] | 80 | 00 | 80 | 00 | С6 | 02 | | | | | | |
| D9 | Application File Locator (Contactless) | 08 | 01 | 01 | 00 | 08 | 0.3 | 03 | 0.0 | | | | |
| DE | Log Data Table [M/Chip Advance] | | 00 | | | | 00 | 00 | 00 | 00 | | | |
| DF 02 | | 00 | - | - | - | - | - | - | - | - | | | |
| DF 02 | Security Limits Status (Contact) [M/Chip | 00 | | | | | | | | | | | |
| DE 44 | Advance] | C1 | | | | | | | | | | | |
| DF 11 | Accumulator 1 Control (Contact) | C1 | | | | | | | | | | | |
| DE 10 | [M/Chip Advance] | ~- | | | | | | | | | | | |
| DF 12 | Accumulator 1 Control (Contactless) | C1 | | | | | | | | | | | |
| 5= / : | [M/Chip Advance] | - | | | | | | | | | | | |
| DF 14 | Accumulator 2 Control (Contact) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 15 | Accumulator 2 Control (Contactless) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 16 | Accumulator 2 Currency Code | 09 | 99 | | | | | | | | | | |
| | [Mastercard] | L | | | | | | | | | | | |
| DF 17 | Accumulator 2 Currency Conversion | | | | | | | | | 00 | | | |
| | Table [Mastercard] | | 00 | 00 | 09 | 99 | 00 | 00 | 00 | 09 | 99 | 00 | 00 |
| | | 00 | • | • | | | | | | | | | |
| DF 18 | Accumulator 2 Lower Limit [Mastercard] | | | | | 00 | | | | | | | |
| DF 19 | Accumulator 2 Upper Limit [Mastercard] | | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DF 1A | Counter 1 Control (Contact) [M/Chip | C1 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 1B | Counter 1 Control (Contactless) [M/Chip | C1 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 1D | Counter 2 Control (Contact) [M/Chip | 00 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| | | | | | | | | | | | | | |



| Tag | Element name | Data v4.0 |
|-------|--|-------------------|
| DF 1E | Counter 2 Control (Contactless) [M/Chip | 00 |
| | Advance] | |
| DF 1F | Counter 2 Lower Limit [Mastercard] | 00 |
| DF 21 | Counter 2 Upper Limit [Mastercard] | 00 |
| DF 22 | MTA CVM (Contact) [M/Chip Advance] | 00 00 00 00 00 |
| DF 23 | MTA CVM (Contactless) [M/Chip | 00 00 00 00 00 00 |
| | Advance] | |
| DF 24 | MTA Currency Code [M/Chip Advance] | 08 40 - USD |
| DF 25 | MTA NoCVM (Contact) [M/Chip | 00 00 00 00 00 00 |
| | Advance] | |
| DF 26 | MTA NoCVM (Contactless) [M/Chip | 00 00 00 00 00 00 |
| DE 07 | Advance] | 00.00 |
| DF 27 | Number Of Days Offline Limit [M/Chip | 00 00 |
| DE 20 | Advance] | 00 00 00 |
| DF 28 | Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance] | 00 00 00 |
| DF 29 | Accumulator 1 CVR Dependency Data | 00 00 00 |
| D1 23 | (Contactless) [M/Chip Advance] | |
| DF 2A | Accumulator 2 CVR Dependency Data | 00 00 00 |
| Di Zi | (Contact) [M/Chip Advance] | |
| DF 2B | Accumulator 2 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 2C | Counter 1 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 2D | Counter 1 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 2E | Counter 2 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 2F | Counter 2 CVR Dependency Data | 00 00 00 |
| DE 00 | (Contactless) [M/Chip Advance] | 01 |
| DF 30 | Interface Enabling Switch [M/Chip | 01 |
| DF 35 | Advance] Security Limits Status (Contactless) | 00 |
| DF 33 | [M/Chip Advance] | |
| DF 37 | Security Limits Status Common [M/Chip | 00 |
| D1 37 | Advance] | |
| DF 3C | CVR Issuer Discretionary Data | 00 |
| | (Contact) [M/Chip Advance] | |
| DF 3D | CVR Issuer Discretionary Data | 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 3F | Read Record Filter (Contact) [M/Chip | 00 |
| | Advance] | |
| DF 40 | Read Record Filter (Contactless) | 00 |
| | [M/Chip Advance] | |
| DF 41 | DS Management Control [M/Chip | 20 |
| | Advance] | |



4.11.5 Contact: CVM List - Maestro debit, AID A000000043060

| Cardho | 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

| | l | rag 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 - '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 30 60 |
| 87 | Application Priority Indicator | 03 |
| 8C | Card Risk Management Data Object List | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| | | 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 |
| 8D | Card Rick Management Data Chicat List | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| טט | Card Risk Management Data Object List 2 (CDOL2) | 51 011 011 02 55 05 51 57 04 91 4C 00 |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 05 41 03 |
| OL. | List | 02 03 00 00 00 00 |
| 94 | Application File Locator (AFL) | 08 01 02 00 |
| 94 | Application File Locator (AFL) | 08 01 02 00 |
| J+ | ן האףווימנוטודד ווכ בטטמנטו (הדב) | |



| Tag | Element name | Data v4.0 |
|-------|--|--|
| 9F 07 | Application Usage Control | FF CO |
| 0. 0. | 7 ppilodion Codgo Comion | 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 | xx xx A0 xx xx xx xx xx xx xx xx |
| 00 | Advance] | xx xx xx xx xx xx * |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 12 | Application Preferred Name | 4D 61 65 73 74 72 6F 20 20 20 20 20 |
| 01 12 | Application i referred Name | 20 20 20 - 'Maestro' |
| 9F 14 | Counter 1 Lower Limit [Mastercard] | 00 |
| 9F 17 | Personal Identification Number (PIN) | 09 |
| 0 | Try Counter | |
| 9F 23 | Counter 1 Upper Limit [Mastercard] | 00 |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx ** |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 42 | Application Currency Code | 08 40 - USD |
| 9F 4D | Transaction Log Entry | OB OA |
| 9F 4F | | 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F |
| 95 45 | Transaction Log Format | 36 02 9F 52 06 DF 3E 01 9F 21 03 9F |
| | | 7C 14 |
| 9F 7E | Application Life Cycle Data [Mastercard] | 04 10 0B 14 00 01 00 00 50 17 79 00 |
| | , , , | AO 00 00 00 04 30 60 00 00 00 00 00 |
| | | 00 00 00 00 00 80 00 88 01 06 A5 5A |
| | | 00 00 00 00 00 00 00 00 00 00 00 00 |
| C3 | Card Issuer Action Code (Contact) - | 00 00 00 |
| | Decline [M/Chip Advance] | 05.00.00 |
| C4 | Card Issuer Action Code (Contact) - | 06 00 00 |
| | Default [M/Chip Advance] | |
| C5 | Card Issuer Action Code (Contact) - | 3F FB 00 |
| | Online [M/Chip Advance] | |
| C6 | PIN Try Limit [M/Chip Advance] | 09 |
| C7 | CDOL1 Related Data Length | 42 |
| | [Mastercard] | |
| C8 | CRM Country Code [Mastercard] | 08 40 - USA |
| C9 | Accumulator 1 Currency Code | 08 40 - USD |
| | [Mastercard] | |
| CA | Accumulator 1 Lower Limit [Mastercard] | 00 00 00 00 00 00 |
| СВ | Accumulator 1 Upper Limit [Mastercard] | 00 00 00 00 00 00 |
| CD | Card Issuer Action Code (Contactless) - | 06 50 00 |
| | Default [M/Chip Advance] | |
| CE | Card Issuer Action Code (Contactless) - | 06 FB 00 |
| | Online [M/Chip Advance] | |
| CF | Card Issuer Action Code (Contactless) - | 00 00 00 |
| | Decline [M/Chip Advance] | |
| | | |



| Tag | Element name | Da | ta | | | | | | | | | V | 4.0 |
|--------|--|----|----|-----|----|----|----------|----|----|----|----|----|------------|
| D1 | Accumulator 1 Currency Conversion | | | 00 | 00 | 00 | 08 | 40 | 00 | 00 | 00 | 08 | |
| 51 | Table [Mastercard] | | | | | | 00 | | | | | | |
| | Table [Masterbara] | 00 | | | | | | | | | | | |
| D3 | Additional Check Table [Mastercard] | 00 | 00 | 00 | FF | FF | FF | FF | FF | FF | FF | FF | FF |
| | | | | | | FF | | | | | | | |
| D5 | Application Control [M/Chip Advance] | | | 80 | 00 | C6 | 02 | | | | | | |
| D6 | Default ARPC Response Code [M/Chip | 00 | 10 | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| D7 | Application Control [M/Chip Advance] | 80 | | 80 | | C6 | | | | | | | |
| D9 | Application File Locator (Contactless) | 08 | | 01 | | 80 | | 03 | | | | | |
| DE | Log Data Table [M/Chip Advance] | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | | |
| DF 02 | Security Limits Status (Contact) [M/Chip | 00 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 11 | Accumulator 1 Control (Contact) | C1 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 12 | Accumulator 1 Control (Contactless) | C1 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 14 | Accumulator 2 Control (Contact) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 15 | Accumulator 2 Control (Contactless) | 00 | | | | | | | | | | | |
| DE 10 | [M/Chip Advance] | | | | | | | | | | | | |
| DF 16 | Accumulator 2 Currency Code | 09 | 99 | | | | | | | | | | |
| DE 47 | [Mastercard] | 00 | 00 | 00 | 00 | 00 | ^^ | 00 | 00 | ^^ | 00 | 00 | 00 |
| DF 17 | Accumulator 2 Currency Conversion | | | | | | 09 00 | | | | | 09 | |
| | Table [Mastercard] | 00 | 00 | 00 | 09 | 99 | 00 | 00 | 00 | 09 | 99 | 00 | 00 |
| DF 18 | Accumulator 2 Lower Limit [Mastercard] | | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DF 19 | Accumulator 2 Upper Limit [Mastercard] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DF 1A | Counter 1 Control (Contact) [M/Chip | C1 | | | | | | | | | | | |
| DI 171 | Advance] | | | | | | | | | | | | |
| DF 1B | Counter 1 Control (Contactless) [M/Chip | C1 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 1D | Counter 2 Control (Contact) [M/Chip | 00 | | | | | | | | | | | |
| | Advance | | | | | | | | | | | | |
| DF 1E | Counter 2 Control (Contactless) [M/Chip | 00 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 1F | Counter 2 Lower Limit [Mastercard] | 00 | | | | | | | | | | | |
| DF 21 | Counter 2 Upper Limit [Mastercard] | 00 | | | | | | | | | | | |
| DF 22 | MTA CVM (Contact) [M/Chip Advance] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DF 23 | MTA CVM (Contactless) [M/Chip | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 24 | MTA Currency Code [M/Chip Advance] | 08 | 40 | - U | SD | | | | | | | | |
| DF 25 | MTA NoCVM (Contact) [M/Chip | | | | | 00 | 00 | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 26 | MTA NoCVM (Contactless) [M/Chip | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 27 | Number Of Days Offline Limit [M/Chip | 00 | 00 | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 28 | Accumulator 1 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| | (Contact) [M/Chip Advance] | | | | | | | | | | | | |
| DF 29 | Accumulator 1 CVR Dependency Data | 00 | 00 | 00 | _ | _ | _ | _ | _ | _ | _ | _ | · <u> </u> |
| | (Contactless) [M/Chip Advance] | | | | | | | | | | | | |
| DF 2A | Accumulator 2 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| | (Contact) [M/Chip Advance] | | | | | | | | | | | | |
| DF 2B | Accumulator 2 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| | (Contactless) [M/Chip Advance] | | | | | | | | | | | | |
| DF 2C | Counter 1 CVR Dependency Data | 00 | 00 | 00 | | | | | | | | | |
| | (Contact) [M/Chip Advance] | | | | | | | | | | | | |



| Tag | Element name | Data | 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 unsuccessf | | | | | |
| 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 early deage |
|-------|-------------------------------------|-------------------------------------|
| 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 | 67 99 99 89 00 00 02 00 05 1F |
| | (PAN) | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 65 62 69 74 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 31 31 20 20 |
| | | 20 20 - 'USA DEBIT/Test Card 11' |
| 5F 24 | Application Expiration Date | 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 - 'US' |



| Application Interchange Profile STE 1: | Tag | Element name | Data v4.0 |
|--|--------|---------------------------------------|-------------------------------------|
| BYTE 1: | | | 11111 |
| B6 - Offline DDA NOT supported | | 3 | BYTE 1: |
| 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 BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone A0 00 00 00 01 22 03 02 | | | |
| D4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: | | | |
| B3 - Issuer authentication NOT supported using External Authenticate command 11 - Combined DDA / GEN AC NOT supported 11 - Combined DDA / GEN AC NOT supported 12 - Base 13 - Base 14 - Base 14 - Base 15 - Base 15 - Base 16 - Ba | | | |
| External Authenticate command D1 - Combined DDA / GEN AC NOT supported BYTE 2: | | | |
| STE 2: No | | | |
| BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone NOT supported b7 - Is NOT S | | | |
| B | | | |
| Bedicated File (DF) Name | | | |
| 87 Application Priority Indicator 8C Card Risk Management Data Object List 1 (CDOL1) 9F 02 06 9F 03 06 9F 13 02 95 05 5F 20 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 72 14 08 9F 75 01 9F 75 14 08 01 01 00 00 00 00 00 | 0.4 | Dedicated File (DF) Name | b7 - Is NOT Mobile phone |
| SC Card Risk Management Data Object List 1 (CDOL1) 2 | | ` , | |
| 1 (CDOL1) 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 | | | |
| State Stat | 80 | | |
| Section Card Risk Management Data Object List 2 (CDOL2) | | T (CDOLT) | |
| 2 (CDOL2) | | | 9F 7C 14 |
| 2 (CDOL2) | 8D | Card Risk Management Data Object List | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| List | | 2 (CDOL2) | |
| Application File Locator (AFL) | 8E | Cardholder Verification Method (CVM) | |
| Application File Locator (AFL) | | | |
| Application Usage Control FF CO | | | |
| BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback a | | | |
| b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b8 - Domestic cashback allowed b8 - Domestic cashback allowed b8 - Domestic cashback allowed b7 - International cashback allowed b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Internatio | 9F 07 | Application Usage Control | |
| b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b4 - Domestic services valid 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 b7 - Internati | | | |
| b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid b7 - International cashback allowed | | | |
| b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashbac | | | |
| b3 - International services valid b2 - ATMs valid b1 - Terminals other than ATMs valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Inte | | | |
| b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 21 b8 - Domestic cashback allowed b7 - International cashback allowed b8 - Domestic cashback allowed b8 - Domestic cashback allowed b8 - International cashback allowed b8 - Domestic cashback allowed b7 - International cashback allowed b8 - DO b8 b8 - DO b8 b8 - DO b8 b8 - DO b8 b8 - DO b9 - DO b0 b0 b0 b0 b0 b0 b0 b | | | |
| D1- Terminals other than ATMs valid BYTE 2: D8 - Domestic cashback allowed D7 - International cashback allowed D8 - D7 - D7 - D8 - D8 - D8 - D8 - D8 - | | | |
| BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b8 00 00 00 00 00 00 00 00 00 00 00 00 00 | | | |
| B8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed 9F 0D Issuer Action Code - Default B0 50 9C 88 00 | | | |
| B7 - International cashback allowed 9F 08 Application Version Number 00 02 | | | - · · · |
| Second S | | | |
| 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 | 9F 08 | Application Version Number | 00 02 |
| 9F 0F Issuer Action Code - Online B0 70 9C 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx | 9F 0D | Issuer Action Code - Default | B0 50 9C 88 00 |
| 9F 10 Issuer Application Data [M/Chip Advance] xx | 9F 0E | Issuer Action Code - Denial | 00 00 00 00 00 |
| Advance xx | 9F 0F | | B0 70 9C 98 00 |
| 9F 11 | 9F 10 | | |
| 9F 12 Application Preferred Name 55 53 20 53 61 76 69 6E 67 73 20 20 9F 14 Counter 1 Lower Limit [Mastercard] 00 Personal Identification Number (PIN) Try Counter 09 <t< td=""><td></td><td></td><td></td></t<> | | | |
| 20 20 20 - 'US Savings' | | | |
| 9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 17 Personal Identification Number (PIN) Try Counter 09 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx | 9F 12 | Application Preferred Name | |
| 9F 17 Personal Identification Number (PIN) Try Counter 09 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx | OE 4.4 | Countar 1 Lower Limit [Mastersard] | • |
| Try Counter 9F 23 Counter 1 Upper Limit [Mastercard] 9F 26 Application Cryptogram (AC) 9F 27 Cryptogram Information Data (CID) 9F 36 Application Transaction Counter (ATC) 9F 42 Application Currency Code 9F 4D Transaction Log Entry 9F 4F Transaction Log Format 9F 27 01 9F 28 02 9A 03 9F 36 02 9F 3E 01 9F 2D 06 05 2A 02 9A 03 9F 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 9F 2F 01 9F 2F 06 0F 3E 01 9F 21 03 9F | | | |
| 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) xx | 95 17 | , , | |
| 9F 26 Application Cryptogram (AC) xx | 0E 22 | | 00 |
| 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx xx * 9F 42 Application Currency Code 08 40 - USD 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 9F 36 Application Transaction Counter (ATC) xx xx * 9F 42 Application Currency Code 08 40 - USD 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 9F 42 Application Currency Code 08 40 - USD 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| 36 02 9F 52 06 DF 3E 01 9F 21 03 9F | | | |
| | 31 4F | Transaction Log Format | |
| | | | |



| T | Element and a second | | 1 - | | | | | | | | | | 4.0 |
|----------|--|---------|-----|-------------|-----|-----|----|----|-----|----------|-----|----|-----|
| Tag | Element name | Da | | 0. D | 1.4 | 00 | 01 | 00 | 00 | - A | 17 | • | 4.0 |
| 9F 7E | Application Life Cycle Data [Mastercard] | | | | | | | | | 50 | | 79 | |
| | | | | | | 00 | | | | 00 01 | | | |
| | | | | | | | | | | 00 | | | |
| C3 | Card Issuer Action Code (Contact) - | | 00 | | - | - | | - | | | - | | |
| CS | Decline [M/Chip Advance] | | 00 | 00 | | | | | | | | | |
| C4 | | 06 | 50 | 00 | | | | | | | | | |
| C4 | Card Issuer Action Code (Contact) - | 08 | 50 | 00 | | | | | | | | | |
| | Default [M/Chip Advance] | 0.0 | | | | | | | | | | | |
| C5 | Card Issuer Action Code (Contact) - | 06 | FB | UU | | | | | | | | | |
| | Online [M/Chip Advance] | 00 | | | | | | | | | | | |
| C6 | PIN Try Limit [M/Chip Advance] | 09 | | | | | | | | | | | |
| C7 | CDOL1 Related Data Length | 42 | | | | | | | | | | | |
| | [Mastercard] | | | | | | | | | | | | |
| C8 | CRM Country Code [Mastercard] | 08 | 40 | - U | SA | | | | | | | | |
| C9 | Accumulator 1 Currency Code | 08 | 40 | - U | SD | | | | | | | | |
| | [Mastercard] | | | | | | | | | | | | |
| CA | Accumulator 1 Lower Limit [Mastercard] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| СВ | Accumulator 1 Upper Limit [Mastercard] | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| CD | Card Issuer Action Code (Contactless) - | 06 | 50 | 00 | | | | | | | | | |
| | Default [M/Chip Advance] | | | | | | | | | | | | |
| CE | Card Issuer Action Code (Contactless) - | 06 | FB | 00 | | | | | | | | | |
| <u> </u> | Online [M/Chip Advance] | | _ | | | | | | | | | | |
| CF | Card Issuer Action Code (Contactless) - | 0.0 | 00 | 0.0 | | | | | | | | | |
| Ci | Decline [M/Chip Advance] | | • | • | | | | | | | | | |
| D1 | | 0.8 | 40 | ٥٥ | ٥٥ | 00 | ΛQ | 40 | 00 | 00 | 00 | 08 | 40 |
| וט | Accumulator 1 Currency Conversion | | | | | | | | | 08 | | | |
| | Table [Mastercard] | 00 | 00 | 00 | 00 | | 00 | 00 | 00 | 00 | -10 | 00 | 00 |
| D3 | Additional Check Table [Mastercard] | 00 | 00 | 00 | FF | FF | FF | FF | FF | FF | FF | FF | FF |
| D0 | Additional Official Table [Masteroara] | FF | FF | FF | FF | FF | FF | | | | | | |
| D5 | Application Control [M/Chip Advance] | 80 | 00 | 80 | 00 | С6 | 02 | | | | | | |
| D6 | Default ARPC Response Code [M/Chip | 00 | 10 | | | | | | | | | | |
| | Advance | | | | | | | | | | | | |
| D7 | Application Control [M/Chip Advance] | 80 | 00 | 80 | 00 | С6 | 02 | | | | | | |
| D9 | Application File Locator (Contactless) | 08 | 01 | 01 | 00 | 08 | 03 | 03 | 00 | | | | |
| DE | Log Data Table [M/Chip Advance] | 0.0 | 00 | | 00 | 0.0 | 00 | 00 | 0.0 | 00 | | | |
| DF 02 | Security Limits Status (Contact) [M/Chip | 00 | | | | | | | | | | | |
| DI 02 | Advance] | | | | | | | | | | | | |
| DE 44 | | C1 | | | | | | | | | | | |
| DF 11 | Accumulator 1 Control (Contact) | C1 | | | | | | | | | | | |
| DE 40 | [M/Chip Advance] | C1 | | | | | | | | | | | |
| DF 12 | Accumulator 1 Control (Contactless) | C1 | | | | | | | | | | | |
| DE | [M/Chip Advance] | ^^ | | | | | | | | | | | |
| DF 14 | Accumulator 2 Control (Contact) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 15 | Accumulator 2 Control (Contactless) | 00 | | | | | | | | | | | |
| | [M/Chip Advance] | | | | | | | | | | | | |
| DF 16 | Accumulator 2 Currency Code | 09 | 99 | | | | | | | | | | |
| | [Mastercard] | <u></u> | | | | | | | | | | | |
| DF 17 | Accumulator 2 Currency Conversion | | | | | | | | | 00 | | | |
| | Table [Mastercard] | | 00 | 00 | 09 | 99 | 00 | 00 | 00 | 09 | 99 | 00 | 00 |
| | | 00 | • | | | | • | | | | | | |
| DF 18 | Accumulator 2 Lower Limit [Mastercard] | | | | | 00 | | | | | | | |
| DF 19 | Accumulator 2 Upper Limit [Mastercard] | | 00 | 00 | 00 | 00 | 00 | | | | | | |
| DF 1A | Counter 1 Control (Contact) [M/Chip | C1 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| DF 1B | Counter 1 Control (Contactless) [M/Chip | C1 | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | |
| | Advance] | L | | | | | | | | | | | |
| DF 1D | Counter 2 Control (Contact) [M/Chip | 00 | | | | | | | | | | | |
| | Advance] | | | | | | | | | | | | |
| | | | | | | | | | | | | | |



| Tag | Element name | Data v4.0 |
|-------|--|-------------------|
| DF 1E | Counter 2 Control (Contactless) [M/Chip | 00 |
| | Advance] | |
| DF 1F | Counter 2 Lower Limit [Mastercard] | 00 |
| DF 21 | Counter 2 Upper Limit [Mastercard] | 00 |
| DF 22 | MTA CVM (Contact) [M/Chip Advance] | 00 00 00 00 00 |
| DF 23 | MTA CVM (Contactless) [M/Chip | 00 00 00 00 00 00 |
| | Advance] | |
| DF 24 | MTA Currency Code [M/Chip Advance] | 08 40 - USD |
| DF 25 | MTA NoCVM (Contact) [M/Chip | 00 00 00 00 00 00 |
| | Advance] | |
| DF 26 | MTA NoCVM (Contactless) [M/Chip | 00 00 00 00 00 00 |
| | Advance] | |
| DF 27 | Number Of Days Offline Limit [M/Chip | 00 00 |
| | Advance] | |
| DF 28 | Accumulator 1 CVR Dependency Data | 00 00 00 |
| | (Contact) [M/Chip Advance] | |
| DF 29 | Accumulator 1 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | 20.00.00 |
| DF 2A | Accumulator 2 CVR Dependency Data | 00 00 00 |
| DE OD | (Contact) [M/Chip Advance] | 00 00 00 |
| DF 2B | Accumulator 2 CVR Dependency Data | 00 00 00 |
| DF 2C | (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 | 00 00 00 |
| D1 20 | (Contactless) [M/Chip Advance] | |
| DF 2E | Counter 2 CVR Dependency Data | 00 00 00 |
| 5 | (Contact) [M/Chip Advance] | |
| DF 2F | Counter 2 CVR Dependency Data | 00 00 00 |
| | (Contactless) [M/Chip Advance] | |
| DF 30 | Interface Enabling Switch [M/Chip | 01 |
| | Advance] | |
| DF 35 | Security Limits Status (Contactless) | 00 |
| | [M/Chip Advance] | |
| DF 37 | Security Limits Status Common [M/Chip | 00 |
| | Advance] | |
| DF 3C | CVR Issuer Discretionary Data | 00 |
| | (Contact) [M/Chip Advance] | |
| DF 3D | CVR Issuer Discretionary Data | 00 |
| DE SE | (Contactless) [M/Chip Advance] | |
| DF 3F | Read Record Filter (Contact) [M/Chip | 00 |
| DE 40 | Advance] | 00 |
| DF 40 | Read Record Filter (Contactless) | |
| DF 41 | [M/Chip Advance] DS Management Control [M/Chip | 20 |
| DF 41 | DS Management Control [M/Cnip Advance] | |
| | | |



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

| Tog | Flament name | Poto |
|-------|---|--|
| Tag | Element name | Data v4.0 |
| 42 | Issuer Identification Number (IIN) | |
| 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 | 60 11 97 37 00 00 00 05 |
| | (PAN) | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 31 32 20 20 |
| | | 20 20 - '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 | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| 80 | | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| | 1 (CDOL1) | 9F 34 03 |
| 8D | Card Risk Management Data Object List | 91 0A 8A 02 95 05 9F 37 04 |
| | 2 (CDOL2) | |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 03 1F 03 |
|) L | List | |
| 0.4 | | 08 01 01 00 10 01 01 00 18 01 01 00 |
| 94 | Application File Locator (AFL) | 00 01 01 00 10 01 01 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 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 - Delilai | B0 68 C4 F8 00 |
| | | xx 06 xx xx xx xx xx * |
| 9F 10 | Issuer Application Data [DPAS] | 03 |
| 9F 17 | Personal Identification Number (PIN) | 03 |
| 05.00 | Try Counter (AC) | |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 38 | Processing Options Data Object List | 9F 02 06 9F 1A 02 5F 2A 02 9A 03 9F |
| | (PDOL) | 35 01 |
| 9F 4D | Transaction Log Entry | OB OA |
| 9F 4F | Transaction Log Format | 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F |
| | | 34 03 9F 52 06 9F 1A 02 95 05 9C 01 |
| | | 8A 02 9F 37 04 9F 03 06 9F 53 08 9F |
| 05.70 | A - Partie Otate ID DAOI | 66 04 9F 71 02 9F 6C 02 |
| 9F 78 | Application State [D-PAS] | 15 48 |
| C1 | Application Configuration Options [DPAS] | 15 46 |
| 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 |
| 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) | 01 09 41 00 00 41 A0 11 FF 01 01 |
| | [DPAS] | |
| DF 20 | Transaction Profile Objects(TPO0) | 00 18 00 08 01 01 00 10 01 01 00 18 01 01 00 00 00 00 00 00 00 00 00 00 |
| | [DPAS] | 00 00 00 00 00 00 00 00 00 00 00 00 |
| | | 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 |
| DF 21 | Transaction Profile Objects(TPO1) | E0 10 00 08 01 01 00 10 01 01 00 18 |
| - . | [DPAS] | 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 |



4.12.3 Contact: CVM List - Discover Debit, AID A0000001523010

| Cardho | Cardholder Verification Method List ('0201 0203 1E03 1F03') | | | | | |
|--------|---|--|----------|--|--|--|
| CVM | Verification Method | Conditions If unsuccessful | | | | |
| 1 | Online PIN | Unattended Cash | Next CVM | | | |
| 2 | Online PIN | Terminal supports CVM type | Fail | | | |
| 3 | Signature (paper) | nature (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 |
| | A sellentine Direct Access (Alexander | 10 00 07 49 00 00 0F 60 11 97 37 00 00 00 05 |
| 5A | Application Primary Account Number (PAN) | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 31 32 20 20 |
| FF 04 | Application Funitation Data | 20 20 - 'USA DEBIT/Test Card 12' |
| 5F 24 | Application Expiration Date | _ |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E 65 73 66 72 - 'enesfr' (English, |
| 55.00 | 0 | Spanish, French) |
| 5F 30 | Service Code | 01 |
| 5F 34 | Application PAN Sequence Number | |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - US 10 00 |
| 82 | Application Interchange Profile | BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt 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 |
| 0. 0. | 7 ppilodion Codgo Comion | 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) | 03 |
| | Try Counter | |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 38 | Processing Options Data Object List | 9F 02 06 9F 1A 02 5F 2A 02 9A 03 9F |
| | (PDOL) | 35 01 |
| 9F 4D | Transaction Log Entry | 0B 0A |
| 9F 4F | Transaction Log Format | 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F |
| | 3 | 34 03 9F 52 06 9F 1A 02 95 05 9C 01 |
| | | 8A 02 9F 37 04 9F 03 06 9F 53 08 9F |
| 05.70 | A - Partie Otata ID DAOI | 66 04 9F 71 02 9F 6C 02 |
| 9F 78 | Application State [D-PAS] | 15 48 |
| 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 | 0 | 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] | 01 00 |
| C5 | Card Action Code - Denial [DPAS] | 2E 1F |
| C6 | Card Action Code - Default [DPAS] | FE 1F |
| C7 | Card Action Code - Online [DPAS] | |
| D0 | Issuer Application Data ObjectList (IADOL) [DPAS] | |
| D2 | 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) | 00 18 00 08 01 01 00 10 01 01 00 18 |
| | [DPAS] | 01 01 00 00 00 00 00 00 00 00 00 00 |
| | | 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 |
| DF 21 | Transaction Profile Objects(TPO1) | E0 10 00 08 01 01 00 10 01 01 00 18 |
| | [DPAS] | 02 02 00 00 00 00 00 00 00 00 00 00 |
| | [51,7.0] | 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 |



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 | Da | ıta | | | | | | | | | V | 4.0 |
|-------|--|----|-----|-----|----|----------|----|----|----|----|----|----|-----|
| 9F 26 | Application Cryptogram (AC) | | | хx | хx | хx | хx | хx | хx | * | | | |
| 9F 27 | Cryptogram Information Data (CID) | 80 | | | | | | | | | | | |
| 9F 36 | Application Transaction Counter (ATC) | хx | хx | * | | | | | | | | | |
| 9F 38 | Processing Options Data Object List | - | | | - | 02 | | - | | | - | 1A | 02 |
| | (PDOL) | 5F | 2A | 02 | 9A | 03 | 9C | 01 | 9F | 37 | 04 | | |
| 9F 4D | Transaction Log Entry | | 0A | | | | | | | | | | |
| 9F 4F | Transaction Log Format | | | | | 2A | | | | | | | |
| | | | | | | 06 04 | | | | | | | |
| | | | | | | 02 | | | | JE | 33 | 00 | JE |
| 9F 6C | Card Transaction Qualifiers [DPAS] | | 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 | 82 | 02 | 00 | 00 | 94 | 04 | 08 | 01 | 01 | 00 | | |
| | Profile | | | | | | | | | | | | |
| C0 | Contactless Application Configuration | 03 | 88 | | | | | | | | | | |
| C2 | Options (CL-ACO) | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| C2 | Issuer Life Cycle Data (ILCD) [DPAS] | | | | | 00 | | | | | | | |
| | | | | | | 00 | | | | | | | |
| | | | | | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| C3 | Currency Conversion Codes 1 [DPAS] | | 40 | | | | | | | | | | |
| C4 | Currency Conversion Codes 2 [DPAS] | | 40 | | | | | | | | | | |
| 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 | | | | | | |
| СВ | 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 | - U | SA | | | | | | | | |
| D3 | CRM Currency Code [DPAS] | 08 | 40 | - U | SD | | | | | | | | |
| D4 | CVM-Accumulator [DPAS] | | | | | 00 | | | | | | | |
| D5 | CVM-Cum limit 1 | | | | | 00 | | | | | | | |
| D6 | CVM-Cum limit 2 | | | | | 00 | | | | | | | |
| D7 | CVM-STA limit 1 | | | | | 00 | | | | | | | |
| D8 | CVM-STA limit 2 | | 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] | | | | | 01 | | | | | | | |
| DF 11 | PDOL Check Table - Profile (PDOLP) [DPAS] | 01 | 09 | 41 | 00 | 00 | 41 | A0 | 11 | FF | 01 | 01 | |



| Tag | Element name | Da | ta | | | | | | | | | ٧ | 4.0 |
|-------|-----------------------------------|----|----------|----|----|----------|----|----|----|----|----|----|-----|
| DF 21 | Transaction Profile Objects(TPO1) | 40 | 40 | 00 | 10 | 00 | 08 | 01 | 02 | 00 | 00 | 00 | 00 |
| | [DPAS] | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| | | 00 | FF 00 | 00 | A0 | 8B 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| | | 00 | 00 | 00 | 00 | 00 | 00 | | 00 | 00 | 00 | 00 | 00 |
| DE 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 | 60 11 97 37 00 00 00 05 |
| | (PAN) | |
| 5F 20 | Cardholder Name | 44 49 53 43 4F 56 45 52 20 43 41 52 |
| | | 44 4D 45 4D 42 45 52 20 - 'DISCOVER |
| 55.04 | Assiliantian Essimation Data | CARDMEMBER' |
| 5F 24 | Application Expiration Date | |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E 65 73 66 72 - 'enesfr' (English, |
| | | Spanish, French) |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 01 |
| 5F 55 | Issuer Country Code (alpha2 format) | 55 53 - US |
| 82 | Application Interchange Profile [DPAS | 10 00 |
| | CL] | BYTE 1: |
| | | b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt NOT to be performed |
| | | b3 - Issuer authentication NOT supported using |
| | | External 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 |
| | The state of the s | BYTE 1: |
| | | b8 - Domestic cash transactions valid |
| | | b7 - Int'l cash transactions valid |
| | | b6 - Domestic goods valid |
| | | b5 - International goods valid |
| | | b4 - Domestic services valid |
| | | b3 - International services valid |
| | | b2 - ATMs valid b1- Terminals other than ATMs valid |
| | | BYTE 2: |
| | | b8 - Domestic cashback NOT allowed |
| | | b7 - International cashback NOT allowed |
| 9F 08 | Application Version Number | 00 01 |
| 9F 10 | Issuer Application Data [DPAS CL] | xx 15 xx xx xx xx xx xx xx * |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 38 | Processing Options Data Object List | 9F 66 04 9F 02 06 9F 03 06 9F 1A 02 |
| 31 30 | (PDOL) | 5F 2A 02 9A 03 9C 01 9F 37 04 |
| 0F 4D | | OB OA |
| 9F 4D | Transaction Log Entry | 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F |
| 9F 4F | Transaction Log Format | 34 03 9F 52 06 9F 1A 02 95 05 9C 01 |
| | | 8A 02 9F 37 04 9F 03 06 9F 53 08 9F |
| | | 66 04 9F 71 02 9F 6C 02 |
| 9F 6C | Card Transaction Qualifiers [DPAS] | 00 00 |
| 9F 71 | Card Processing Requirements [DPAS] | 00 8B |
| 9F 71 | Card Processing Requirements [DPAS] | 00 8B |
| 9F 78 | Application State [D-PAS] | 01 |
| BF 51 | Contactless D-PAS MS and ZIP Default | 82 02 00 00 94 04 08 01 01 00 |
| ыэг | Profile | 02 02 00 00 91 01 00 01 01 00 |
| C0 | Contactless Application Configuration | 03 88 |
| | Options (CL-ACO) | |
| C2 | Issuer Life Cycle Data (ILCD) [DPAS] | 00 00 00 00 00 00 00 00 00 00 00 |
| | | 00 00 00 00 00 00 00 00 00 00 00 |
| | | 00 00 00 00 00 00 00 00 00 00 00 |
| | 0 1 4 500 | 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| C3 | Currency Conversion Codes 1 [DPAS] | |
| 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 | 00 00 00 00 00 |
| | (UCOA) [DPAS] | |
| CA | Single Transaction Amount (STA) Limit | 00 00 00 00 00 |
| CD | [DPAS] | 00 |
| СВ | Lower Consecutive Offline Limit (LCOL) | |
| 00 | [DPAS] | 00 |
| CC | Upper Consecutive Offline Transaction | |
| 00 | Limit (UCOL) [DPAS] | |
| CD | Number of Consecutive Offline | 00 |
| | Transactions (NCOT) [DPAS] | 00.00.00.00.00 |
| CE | Cumulative Offline Amount [DPAS] | 00 00 00 00 00 |
| D0 | Issuer Application Data ObjectList | |
| | (IADOL) [DPAS] | |
| D1 | Offline Balance [DPAS] | 00 00 00 00 00 |
| | | |
| D2 | CRM Country Code [DPAS] | 08 40 - USA |
| D2 D3 | CRM Currency Code [DPAS] | 08 40 - USD |
| D2 | | |



| Tag | Element name | Da | ta | | | | | | | | | V | 4.0 |
|--------------|--|----|----|----|----|----|----|----|----|----|----|----|-----|
| 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) | _ | | | | | | | 02 | | 00 | 00 | |
| | [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 |
| DE 00 | 001404000 11444 (10 0401 | | 00 | 00 | 00 | 00 | 00 | 00 | | | | | |
| DF 30 | CRM-CAC Switch Interface [D-PAS] | | | | | | | | | | | | |
| DF 31 | CRM-CAC Denial [D-PAS] | | 00 | | | | | | | | | | |
| DF 32 | CRM-CAC Online [D-PAS] | | | | | | | | | | | | |
| DF 33 | CRM-CAC Default [D-PAS] | 98 | 3E | EB | | | | | | | | | |
| DF 34 | CVM Card Action Codes - Online | | 80 | | | | | | | | | | |
| DF 35 | CVM Card Action Codes - Signature | | 80 | | | | | | | | | | |
| DF 40 | CL-Accumulator | 00 | | 00 | | | | | | | | | |
| DF 41 | CL-Cum Limit | 00 | | 00 | | | | | | | | | |
| DF 42 | CL-STA | | 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

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

4.13.2 Contact: Application Tag data, AID A0000001524010

| Tag | Element name | Data 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 OF |
| 5A | Application Primary Account Number | 60 11 97 37 00 00 00 05 |
| | (PAN) | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 31 33 20 20 20 20 20 - 'USA DEBIT/Test Card 13' |
| 5F 24 | Application Expiration Data | 20 20 - USA DEBIT/Test Cald 13 |
| 5F 25 | Application Expiration Date Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| | • | 65 6E - 'en' (English) |
| 5F 2D | Language Preference | 02 01 |
| 5F 30 | Service Code | 01 |
| 5F 34 | Application PAN Sequence Number | 55 53 - US |
| 5F 55 | Issuer Country Code (alpha2 format) | 18 00 |
| 82 | Application Interchange Profile | BYTE 1: |
| | | b7 - Offline SDA NOT supported |
| | | b6 - Offline DDA NOT supported |
| | | b5 - Cardholder verification supported |
| | | b4 - Terminal risk mgmt to be performed |
| | | b3 - Issuer authentication NOT supported 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 | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| 0.0 | Cont Birt Manager (Bata City of St | 9F 34 03 91 0A 8A 02 95 05 9F 37 04 |
| 8D | Card Risk Management Data Object List | 91 UA 6A UZ 95 U5 9F 3/ U4 |
| 0. | 2 (CDOL2) | 00 00 00 00 00 00 00 00 02 03 1F 03 |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 03 11 03 |
| 0.4 | List | 08 01 01 00 10 01 02 00 18 01 01 00 |
| 94 | Application File Locator (AFL) | 08 01 01 00 10 01 02 00 18 01 01 00 |



| Tag | Element name | Data 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) | 03 |
| 0, | Try Counter | |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 4D | Transaction Log Entry | OB OA |
| 9F 4F | Transaction Log Format | 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F |
| 01 41 | Transaction Log Format | 34 03 9F 52 06 9F 1A 02 95 05 9C 01 |
| | | 8A 02 9F 37 04 9F 03 06 9F 53 08 9F |
| | | 66 04 9F 71 02 9F 6C 02 |
| 9F 78 | Application State [D-PAS] | 00 |
| C1 | Application Configuration Options | 15 40 |
| | [DPAS] | |
| 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 |
| C3 | Currency Conversion Codes 1 [DPAS] | 08 40 00 01 00 |
| C4 | Currency Conversion Codes 2 [DPAS] | 08 40 00 01 00 |
| C5 | | 01 00 |
| | Card Action Code - Default [DPAS] | 2E 1F |
| C6 C7 | Card Action Code - Default [DPAS] | FE 1F |
| | Card Action Code - Online [DPAS] | EE IF |
| D0 | Issuer Application Data ObjectList | |
| Da | (IADOL) [DPAS] | 09.40 USA |
| D2 | CRM Country Code [DPAS] | 08 40 - USA |
| D3 | CRM Currency Code [DPAS] | 08 40 - USD 01 09 41 00 00 41 A0 00 0F 01 01 |
| DF 11 | PDOL Check Table - Profile (PDOLP) | OT 09 41 00 00 41 MO 00 0F 01 01 |
| DE 20 | [DPAS] | 00 18 00 08 01 01 00 10 01 02 00 18 |
| DF 20 | Transaction Profile Objects(TPO0) | 01 01 00 00 00 00 00 00 00 00 00 00 |
| | [DPAS] | 00 00 00 00 00 00 00 00 00 00 00 01 |
| | | 00 FE 1F 2E 1F 00 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

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

4.14.2 Contact: Application Tag data, AID A0000006200620

| _ | | rag 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 |
| - 4 | A 1: 1: D: A 1. A | 56 78 00 00 00 35 1F 40 00 00 00 00 00 00 28 |
| 5A | Application Primary Account Number (PAN) | |
| 5F 20 | Cardholder Name | 55 53 41 20 44 45 42 49 54 2F 54 65 |
| | | 73 74 20 43 61 72 64 20 31 34 20 20 |
| 55.04 | Assiliantian Englishing Date | 20 20 - 'USA DEBIT/Test Card 14' |
| 5F 24 | Application Expiration Date | |
| 5F 25 | Application Effective Date | xx xx xx * |
| 5F 28 | Issuer Country Code | 08 40 - USA |
| 5F 2D | Language Preference | 65 6E - 'en' (English) |
| 5F 30 | Service Code | 02 01 |
| 5F 34 | Application PAN Sequence Number | 01 |
| 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 | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 |
| | , | 9F 34 03 |
| 8D | Card Risk Management Data Object List 2 (CDOL2) | 91 0A 8A 02 95 05 9F 37 04 |
| 8E | Cardholder Verification Method (CVM) | 00 00 00 00 00 00 00 00 02 01 02 04 |
| | List | 02 03 1F 03 |
| | 1 | ı |



| 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 * |
| 9F 11 | Issuer Code Table Index | 01 |
| 9F 12 | Application Preferred Name | 44 65 62 69 74 - 'Debit' |
| 9F 17 | Personal Identification Number (PIN) | 03 |
| | Try Counter | |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * |
| 9F 27 | Cryptogram Information Data (CID) | 80 |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * |
| 9F 4D | Transaction Log Entry | OB OA |
| 9F 4F | Transaction Log Format | 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F |
| 0 | Transaction 20g r office | 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 | 15 60 |
| | [DPAS] | |
| 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 |
| C2 | Currency Conversion Codes 1 [DDAS] | 08 40 00 00 02 |
| C3 C4 | Currency Conversion Codes 1 [DPAS] | 08 40 00 00 02 |
| | Currency Conversion Codes 2 [DPAS] | 00 40 00 00 02 |
| D0 | Issuer Application Data ObjectList | |
| Da | (IADOL) [DPAS] | 08 40 - USA |
| D2 | CRM Country Code [DPAS] | 08 40 - USD |
| D3 | CRM Currency Code [DPAS] | 00 18 00 08 01 01 00 18 01 02 01 00 |
| DF 20 | Transaction Profile Objects(TPO0) | 00 00 00 00 00 00 00 00 00 00 00 00 |
| | [DPAS] | 00 00 00 00 00 00 00 00 00 00 00 01 |
| | | 00 F6 1F 22 0B 00 00 00 00 00 00 00 |
| | | 00 00 00 00 00 00 00 00 00 00 00 |
| | | 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 | Element name | Data value changes with card usage |
|----------|---|--|
| 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 |
| | η | 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 |
| 55.04 | Assiltantia Essintia Data | 20 20 - 'USA DEBIT/Test Card 15' |
| 5F 24 | Application Expiration Date | |
| 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 | 9F 02 06 9F 03 06 9F 1A 02 95 05 5F |
| 30 | 1 (CDOL1) | 2A 02 9A 03 9C 01 9F 37 04 9F 45 02 |
| | (ODOLI) | 9F 4C 08 9F 34 03 |
| 8D | Card Risk Management Data Object List | 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 |
| | 2 (CDOL2) | |
| 8E | Cardholder Verification Method (CVM) 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 |
| <u> </u> | | |



| 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 | | | | | | | |
| 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 * | | | | | | | |
| 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 | OB OA | | | | | | | |
| 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 | 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 2 | 2 20 |
| 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 5 73 74 20 43 61 72 64 20 31 35 2 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 9F 07 | Application File Locator (AFL) Application Usage Control | 08 01 03 00 | | | | | | |
| | | 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 | | | | | | |
| 9F 0F | Issuer Action Code - Online | FC E8 FC 98 00 | | | | | | |
| 9F 10 | Issuer Application Data [InteracFlash] | xx xx 85 xx | | | | | | |
| 9F 13 | Last Online Application Transaction Counter (ATC) Register | xx xx * | | | | | | |
| 9F 17 | Personal Identification Number (PIN) Try Counter | 09 | | | | | | |
| 9F 26 | Application Cryptogram (AC) | xx xx xx xx xx xx xx * | | | | | | |
| 9F 27 | Cryptogram Information Data (CID) | 80 | | | | | | |
| 9F 36 | Application Transaction Counter (ATC) | xx xx * | | | | | | |
| 9F 38 | Processing Options Data Object List (PDOL) | 9F 59 03 9F 5A 01 9F 02 06 9F 1A 02 5F 2A 02 9F 37 04 9F 58 01 | | | | | | |
| 9F 42 | Application Currency Code | 01 24 - CAD | | | | | | |
| 9F 44 | Application Currency Exponent | 02 | | | | | | |
| 9F 4D | Transaction Log Entry | OB OA | | | | | | |
| 9F 4F | Transaction Log Format | 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 8A 02 00 01 | | | | | | |
| 9F 62 | Card Product Code [InteracFlash] | 00 01 | | | | | | |



| Tag | Element name | Data v4.0 |
|-------|--------------------------------------|---------------|
| 9F 63 | Card Transaction Information | xx xx xx xx * |
| | [InteracFlash] | |
| 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 | VM 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 valu | ıe changes wi | th 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 | 8A 02 9F 02 06 9F 03 06 9F 1A 02 95 |
| | 2 (CDOL2) | 05 5F 2A 02 9A 03 9C 01 9F 37 04 |
| 8E | Cardholder Verification Method (CVM) 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 |
| | | CO 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 OD 8A E2 63 98 36 BC A6 9B D9 EE 78 |
| 92 | Issuer Public Key Remainder | EC A4 19 2A 02 CA AC 0B 75 22 44 EC |
| 52 | 133der i dolle Rey Remainder | 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 |
| 05.00 | Application Vancing No. 11 | b7 - International cashback NOT allowed |
| 9F 08 | Application Version Number | 00 01 B0 70 BC 80 00 |
| 9F 0D | Issuer Action Code - Default | 00 00 00 00 00 |
| 9F 0E | Issuer Action Code - Denial | B0 70 BC 98 00 |
| 9F 0F | Issuer Action Code - Online | 01 |
| 9F 11 9F 12 | Issuer Code Table Index | 49 6E 74 65 72 61 63 - 'Interac' |
| 9F 12 | Application Preferred Name Last Online Application Transaction | xx xx * |
| 9F 13 | Counter (ATC) Register | |
| 9F 17 | Personal Identification Number (PIN) | 09 |
| 51 17 | Try Counter | |
| 9F 1F | Track 1 Discretionary Data | 31 36 32 39 30 37 34 30 30 30 30 31 |
| 0 | Track i Discretionary Data | 30 30 30 30 30 30 30 30 30 30 30 |
| 9F 32 | Issuer Public Key Exponent | 03 |
| | Application Transaction Counter (ATC) | xx xx * |



| Tag | Element name | Da | ta | | | | | | | | | ٧ | 4.0 |
|-------|--|------------|----|----------|----|----|-----|----|-----|----|----|----|-----|
| 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 | _ | | EC | _ | | _ | | - | | | | |
| | • | _ | | 59 | | | | - | | | | | _ |
| | | | | 53 E4 | | | | | | | | | |
| | | _ | | E4 E9 | - | | | - | | - | | - | - |
| | | | | A5 | | | | | | | | | |
| | | | | 0A | | | | | | | | | |
| | | | | D6 | | | | | | | | | |
| | | - | - | ΑE | _ | _ | _ | _ | | _ | | _ | - |
| | | | | B0 | _ | _ | - | | _ | _ | | _ | |
| | | | | 1C BD | | | | | | | | | |
| 9F 47 | ICC Public Key Exponent | 03 | 40 | טט | ъь | 51 | 2.0 | | -10 | | 23 | 20 | כם |
| 9F 48 | ICC Public Key Remainder | | FC | 17 | 8E | 7A | 76 | F6 | F4 | 17 | BC | 8F | E6 |
| 31 40 | ICC Fublic Key Kemailidei | _ | _ | 89 | | | _ | _ | | | _ | | - |
| | | 5 F | 69 | | | | | | | | | | |
| 9F 49 | Dynamic Data Authentication Data | 9F | 37 | 04 | | | | | | | | | |
| | Object List (DDOL) | | | | | | | | | | | | |
| 9F 4A | Static Data Authentication Tag List | 82 | | | | | | | | | | | |
| 9F 51 | Lower Cumulative Offline Limit | 01 | 24 | | | | | | | | | | |
| | [InteracFlash] | | | | | | | | | | | | |
| 9F 52 | Merchant Type Indicator Limits 01 | C0 | 38 | 00 | 00 | 00 | 00 | | | | | | |
| | [InteracFlash] | | | | | | | | | | | | |
| 9F 54 | Merchant Type Indicator Limits 02 | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| | [InteracFlash] | | | | | | | | | | | | |
| 9F 56 | Merchant Type Indicator Limits 04 | 80 | | | | | | | | | | | |
| | [InteracFlash] | | | | | | | | | | | | |
| 9F 57 | Merchant Type Indicator Limits 05 | 01 | 24 | | | | | | | | | | |
| | [InteracFlash] | | | | | | | | | | | | |
| 9F 5C | Upper Cumulative Offline Limit | 00 | 00 | 00 | 00 | 00 | 00 | | | | | | |
| | [InteracFlash] | | | | | | | | | | | | |
| 9F 68 | Contact CIAC Default [InteracFlash] | | | 10 | | | | | | | | | |
| 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 | Х |
| 01 | 00000001 | 01 | SOH | 45 | 00101101 | 2D | - | 89 | 01011001 | 59 | Υ |
| 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 | Ĭ |
| 05 | 00000101 | 05 | ENQ | 49 | 00110001 | 31 | 1 | 93 | 01011101 | 5D |] |
| 06 | 00000110 | 06 | ACK | 50 | 00110010 | 32 | 2 | 94 | 01011110 | 5E | ^ |
| 07 | 00000111 | 07 | BEL | 51 | 00110011 | 33 | 3 | 95 | 01011111 | 5F | _ |
| 08 | 00001000 | 08 | BS | 52 | 00110100 | 34 | 4 | 96 | 01100000 | 60 | ` |
| 09 | 00001001 | 09 | HT | 53 | 00110101 | 35 | 5 | 97 | 01100001 | 61 | а |
| 10 | 00001010 | 0A | LF | 54 | 00110110 | 36 | 6 | 98 | 01100010 | 62 | b |
| 11 | 00001011 | 0B | VT | 55 | 00110111 | 37 | 7 | 99 | 01100011 | 63 | С |
| 12 | 00001100 | 0C | FF | 56 | 00111000 | 38 | 8 | 100 | 01100100 | 64 | d |
| 13 | 00001101 | 0D | CR | 57 | 00111001 | 39 | 9 | 101 | 01100101 | 65 | е |
| 14 | 00001110 | 0E | SO | 58 | 00111010 | 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 | I |
| 21 | 00010101 | 15 | NAK | 65 | 01000001 | 41 | Α | 109 | 01101101 | 6D | m |
| 22 | 00010110 | 16 | SYM | 66 | 01000010 | 42 | В | 110 | 01101110 | 6E | n |
| 23 | 00010111 | 17 | ETB | 67 | 01000011 | 43 | С | 111 | 01101111 | 6F | 0 |
| 24 | 00011000 | 18 | CAN | 68 | 01000100 | 44 | D | 112 | 01110000 | 70 | р |
| 25 | 00011001 | 19 | EM | 69 | 01000101 | 45 | Е | 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 | Н | 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 | Х |
| 33 | 00100001 | 21 | ! | 77 | 01001101 | 4D | M | 121 | 01111001 | 79 | У |
| 34 | 00100010 | 22 | " | 78 | 01001110 | 4E | N | 122 | 01111010 | 7A | Z |
| 35 | 00100011 | 23 | # | 79 | 01001111 | 4F | 0 | 123 | 01111011 | 7B | { |
| 36 | 00100100 | 24 | \$ | 80 | 01010000 | 50 | Р | 124 | 01111100 | 7C | |
| 37 | 00100101 | 25 | % | 81 | 01010001 | 51 | Q | 125 | 01111101 | 7D | } |
| 38 | 00100110 | 26 | & | 82 | 01010010 | 52 | R | 126 | 01111110 | 7E | ~ |
| 39 | 00100111 | 27 | • | 83 | 01010011 | 53 | S | 127 | 01111111 | 7F | DEL |
| 40 | 00101000 | 28 | (| 84 | 01010100 | 54 | Т | | | | |
| 41 | 00101001 | 29 |) | 85 | 01010101 | 55 | U | | | | |
| 42 | 00101010 | 2A | * | 86 | 01010110 | 56 | ٧ | | | | |
| 43 | 00101011 | 2B | + | 87 | 01010111 | 57 | W | | | | |