

USA Debit EMV™ Test Plan

Version 12.00

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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-T0<u>3</u> Updated Test Cases: CD.MCCL.C08-T02 CD.MCCL.C08-T03 CD.MCCL.C09-T01 Card version numbers (profile table, Tag data) updated to match physical card version - all are currently v4.0. Tags 82, 9F07, 9F69: interpretation of bit values added 			
2.00	August 20, 2018	 TC03: updated to v5.0 - Tag 57 modified 			
3.00	September 27, 2018	 Tag 82 (AIP) updated on non-Visa cards Discover cards (TC12, TC13) - Expiry date changed to 23/12 DNA Card (TC14) - Expiry date changed to 25/12 			
3.10	December 13, 2018	TC03: documentation updated to reflect Dual-Funding			
4.00	March 11, 2019	TC03: updated to v6.0 - Discretionary data modified			
4.01	June 7, 2019	• Card set on which tests are based renamed to "USA Debit EMV Test Card Set". No change to cards themselves.			
5.00	June 21, 2019	TC16: updated to v5.0 - Language indicator modified			
6.00	July 7, 2020	 TC10: Support for new physical cardstock added. No discernible change to EMV tags 			

Version	Date	Revisions
6.10	February 18, 2021	 TC15: MTI (Contactless) tags 9F52, 9F54, 9F55, 9F56, 9F57 revealed.
7.00	March 23, 2021	 TC05-TC11: (Mastercard/Maestro) change Expiry Date to 25/12
8.00	December 14, 2021	 TC01-TC04: card expiry date updated TC01, TC05: PAR (Tag 9F 24) added TC15: replaced with updated DI card (Interac Flash BIN '00') TC16: Interac card replaced with Mastercard Credit/Debit/ U.S. Maestro card
9.00	March 18, 2022	• TC15: new BIN, PAN, DES keys
10.00	August 15, 2022	 TC12-13 – Discover cards change Expiry Date to 05/26. New PANs assigned. TC14 – DNA card. Support for new cardstock. No change to functionality
11.00	December 14, 2022	• TC12– Tag 57 updated ('Final char is 'F')
12.00	March 15, 2023	 TC10 – Becomes DI Card TC15 - change cardstock – NO change to functionality

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Chapter 1 - Overview

1.1 USA Debit EMV Test Plan - Purpose

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

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

1.2 Target Audience

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

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

1.3 System Requirements

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

Chapter 2 - Implementing U.S. Debit

2.1 U.S. Common Debit Scenarios

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

U.S. Common Debit AIDs					
Brand Scheme AID					
Discover	U.S. Common Debit	A0000001524010			
DNA	U.S. Common Debit	A000006200620			
Mastercard	A000000042203				
Visa Visa Common Debit A0000009808					

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.

Scenario One	AID	-	IIN Tag 42 le debit funding est Cards 01, 05		
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 supported CVM may be 	
U.S. Common Debit AID	TC 01 - A000000980840 TC 05 - A000000042203 TC 12 - A0000000154010	US	TC 01 - 476173 TC 05 - 541333 TC 12 - 651000	 U.S. Common Debit AID – may be routed to any of the global networks or any of the supported debit networks (any supported CVM may be used) 	
Two	Combo card accessing a credit account and a single funding debit account: USA Debit Test Cards 03, 09				
Global Credit AID	TC 03 - A000000003101001 TC 09 - A0000000041010	n/a	n/a	Global Credit AID will remain in the Candidate List for cardholder selection.	

U.S. Common Debit Scenarios

U.S. Commol	n Debit Scenarios			
Scenario	AID	Country Code Tag 5F55	IIN Tag 42	Candidate List Choice for the Merchant
Global Debit AID	TC 03 - A00000003101002 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
U.S. Common Debit AID	TC 03 - A0000000980840 TC 09 - A000000042203	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 it Test Card 11	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)

U.S. Common Debit Scenarios

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

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

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

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

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

2.3 **PIN Preferring Merchants:**

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

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

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

- 1. For each transaction the final amount for the transaction must be known prior to filtering the Candidate List.
- 2. Once the final amount is known and the Candidate List is created, the card type will be identified based on the list of AIDs in the Candidate List. There are two options:
 - The Candidate List does not contain any U.S. Common Debit AIDs This is either an international or domestic credit card or an international debit card (USA Debit Test Cards 04, 06, 07, 15 and 16). In this case there are no additional steps required to filter the Candidate List and the application can continue to the Final Selection Process (section 1.4.3 below).
 - The Candidate List contains one or more U.S. Common Debit AIDs This is a U.S. Debit card (USA Debit Test Cards 01, 02, 03, 05, 08, 09, 10, 11, 12, 13 and 14).
- For U.S. Debit cards, the EMV POS Solution must determine which AIDs should remain in the Candidate List, based on the three scenarios described in Table 02 (above). Depending on the number of AIDs remaining in the Candidate List, one the following should be performed:
 - Candidate List only contains one AID Continue to step 4.
 - Candidate List contains more than one AID Continue to the Final Selection Process (section 1.4.3 below).
- 4. If the Candidate List only contains a single U.S. Common Debit AID, the EMV POS Solution must determine if the transaction is under or over the NO CVM limit:
 - Transaction is under the NO CVM limit Set Terminal Capabilities (Tag 9F33) to "NO CVM Only Configuration" and continue with Final Selection Process (section 1.4.3 below).
 - Transaction is over the NO CVM limit continue to step 5.



5. If the Candidate List contains a single U.S. Common Debit AID and the transaction is over the NO CVM limit for U.S. Debit, then set the Terminal Capabilities (Tag 9F33) to All CVM Configuration. Later during Cardholder Verification, the application will prompt for PIN and may allow the cardholder to bypass the PIN.

2.4 Credit/Debit Prompting Merchants:

The following assumptions have been made when describing the Application Selection process for merchants supporting Credit/Debit Prompting for U.S. Debit:

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

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

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

Depending on the number of AIDs remaining in the Candidate List, one the following should be performed:

• Candidate List only contains one AID – Continue to step 5.

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

If the Candidate List only contains a single Global Debit AID, the EMV POS Solution must determine if the transaction is under or over the NO CVM limit:

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

If the Candidate List contains a single Global Debit AID and the transaction is over the NO CVM limit for the Global Debit AID, the following should be performed:

 Transaction is over the NO CVM limit – Set Terminal Capabilities (Tag 9F33) to "All CVM Configuration" and continue with Final Selection Process (section 1.4.3 below). As the transaction is over the NO CVM limit and the only CVM supported by the terminal is Signature - the application should print a signature line on the receipt.

2.5 Final Selection Processing

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

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

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

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

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

application names displayed are determined as follows:

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

Display the Application Label (Tag 50) if the Application Preferred Name is not present or cannot be displayed.

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

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

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

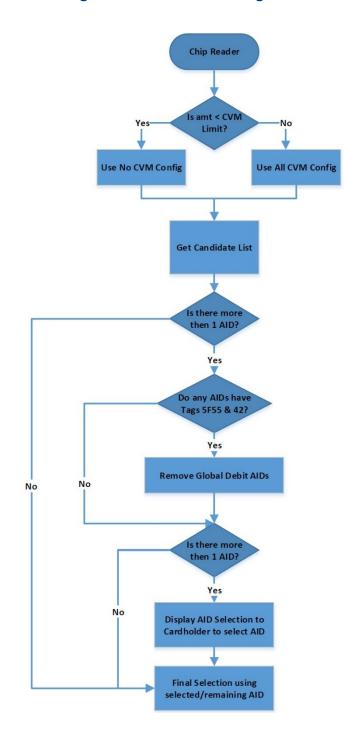
Set the Processing Code:

- 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

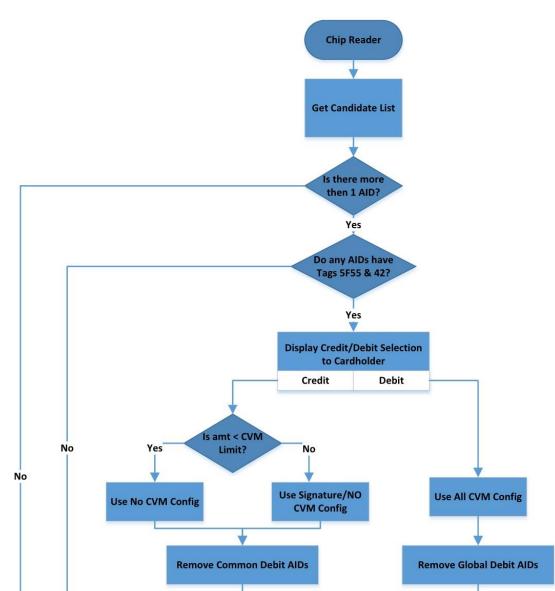
The kernel can now select the AID on the chip and Final Selection ends.

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.

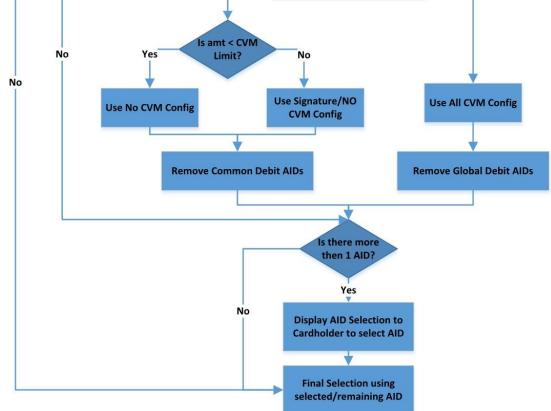




2.6 U.S. Debit Processing Flowchart PIN Preferring Merchants



2.7 U.S. Debit Processing Flowchart - Credit/Debit Prompting Merchants



Chapter 3 - USA Debit EMV Test Plan

3.1 Test Case Outline

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

Types of Merchant Configuration include:

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

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

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

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

Test cases are organized into categories by 'Merchant Configuration'.

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

3.2 Selecting Applicable Test Cases

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

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

3.3 USA Debit EMV Test Cases

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

Important Notes:

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

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

DD.AAAA.Cxx-Tyy, where:

- *DD* is: **PP** - PIN Preferring **CD** - Credit/Debit
- AAAA is:
 MCCL Merchant Controlled Candidate List)
 SEAS Standard EMV Application Selection
- Cxx is: The <u>C</u>ard Number (01-16)
- Tyy is: The Test Number (resets to "01" for each card)

e.g.

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

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



3.3.1 Test Case ID and Title

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

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

3.3.2	Туре		
Туре:	Contact		

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

3.3.3 Purpose

Purpose:

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

- 1. Does not prompt for Credit or Debit
- 2. Does <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, A000000980840

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. "A000000980840" AID selected was 'US Debit'

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

3.3.7 Comments

Comments:

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

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

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

Card	Application 1	Application 2	Application 3	Application 4
	A000000031010	A000000980840		
01	Debit	Debit		
	Visa Debit	US Debit		
	4761739001010135	4761739001010135		
02	A000000980840			
	Debit			
	US Debit			
	4761739001010135			
03	A00000003101001	A00000003101002	A000000980840	
	Credit	Debit	Debit	
03	Visa Credit	Visa Debit	US Debit	
	4761739001010176	4761739001010135	4761739001010135	
04	A000000033010			
	Debit			
	Interlink			
	476173100000084			
	A000000041010	A000000042203		
05	Debit	Debit		
05	Mastercard Debit	US Maestro		
	5413330089099130	5413330089099130		
	A000000043060	A000000043060		
	D0561111	D0562222		
06	Debit	Debit		
	Maestro1	Maestro2		
	67999989000002010	67999989000002028		
	A000000041010	A000000043060		
07	Credit	Debit		
07	Mastercard	Maestro		
	5413330089020060	6799998900000200051		
	A000000042203	A000000042203		
	D0561111	D0562222		
08	Debit	Debit		
	US Checking	US Savings		
	5413330089099007	5413330089099015		
09	A000000041010	A000000043060	A000000042203	
	Credit	Debit	Debit	
09	Mastercard	Maestro	US Maestro	
	5413330089020060	6799998900000200051	6799998900000200051	
	A000000042203			
10	Debit			
10	US Maestro			
	5413330089099130			
	A0000000041010	A00000004220301	A000000043060	A00000004220302
11	Debit	Debit	Debit	Debit
11	Mastercard Debit	US Checking	Maestro	US Savings
	5413330089020060	5413330089020060	6799998900000200051	67999989000020005

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

Card	Application 1	Application 2	Application 3	Application 4
12	A000001524010	A000001523010		
	Debit	Debit		
	US Debit	Discover Debit		
	6011973700000005	6011973700000005		
13	A000001524010			
	Debit			
	US Debit			
	6011973700000005			
	A000006200620			
14	Debit			
	DNA			
	40000000000028			
	A000002771010	A000002771010		
15	Debit	Debit		
15	Interac	Interac Flash		
	0012020000001	0012020000001		
	A00000004101001	A00000004101002	A00000000042203	
16*	Credit	Debit	Debit	
10	Mastercard	Mastercard	US Maestro	
	5413330089020060	5413330089099130	5413330089099130	

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

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, A000000980840

Steps:

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

Pass Criteria:

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

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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:

- 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
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "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, A000000980840
- 4. Contactless CVM Floor limit is above \$10

Steps:

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

Pass Criteria:

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

B2》

3.3.9.5 PP.MCCL.C02-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

B2》

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:

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

Steps:

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

Pass Criteria:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

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

Pre-Requisites:

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

3.3.9.9 PP.MCCL.C03-T03

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

B2》

3.3.9.10 PP.MCCL.C04-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AID: A000000033010

Steps:

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

Pass Criteria:

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

3.3.9.11 PP.MCCL.C05-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000042203

Steps:

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

Pass Criteria:

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

- 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, A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

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

- 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, A000000042203
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "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 not prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Does <u>not</u> prompt for PIN as the transaction amount is under the Contactless CVM Floor Limit

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000042203
- 4. Contactless CVM Floor limit is above \$20

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. User is not prompted to enter a PIN
- 4. The 'US Maestro' application is automatically selected
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "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: A000000043060

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- 3. User is able to select 'Maestro1'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060D0561111" AID selected was 'Maestro1'
 - c. "2010" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

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'
- 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. "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, A000000043060

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 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

3.3.9.20 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: A000000042203

Steps:

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

Pass Criteria:

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

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: A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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: A000000042203

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: 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 Savings' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

Pass Criteria:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

Steps:

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

Pass Criteria:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

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:

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

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

3.3.9.28 PP.MCCL.C10-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

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

Steps:

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

Pass Criteria:

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

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: A000000041010, A000000043060 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 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A00000004220301" AID selected was 'US Checking'
 - c. "0060" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

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: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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: A000000041010, A000000043060 and A000000042203

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select '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. "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: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

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

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

Steps:

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

Pass Criteria:

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

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
- 2. When prompted for card entry, insert Test Card 12
- 3. When prompted for PIN, press Enter/Cancel to bypass PIN entry

Pass Criteria:

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

3.3.9.36 PP.MCCL.C12-T03

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

Type:Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

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

3.3.9.37 PP.MCCL.C12-T04

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A0000001524010, A0000001523010
- 4. Contactless CVM Floor limit is above \$79

Steps:

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

Pass Criteria:

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

3.3.9.38 PP.MCCL.C13-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.9.39 PP.MCCL.C13-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.9.40 PP.MCCL.C14-T01

PP.MCCL.C14-T01 PIN Preferring, Merchant Controlled Candidate List Card 14 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.9.41 PP.MCCL.C15-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.9.42 PP.MCCL.C16-T01

PLEASE READ IMPORTANT NOTES AT THE BEGINING OF SECTION 3.3

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.10 PIN Preferring, Standard EMV Application Selection – Test Cases

3.3.10.1 PP.SEAS.C01-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Visa Debit' and 'US Debit'
- 3. User is able to select 'Visa Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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:

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

Steps:

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

Pass Criteria:

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

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A000000980840
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

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

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A000000980840
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "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 not prompt for Application Selection
- 3. Automatically selects the 'Visa Debit' application
- 4. Does <u>not</u> require a Signature as the transaction amount is under the Contactless CVM Floor Limit

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A000000980840
- 4. Contactless CVM Floor limit is above \$10

Steps:

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

Pass Criteria:

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

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:

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

Steps:

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

Pass Criteria:

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

3.3.10.8 PP.SEAS.C03-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. User is able to select '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
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

Steps:

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

Pass Criteria:

- 1. User is <u>not</u> prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. User is able to select '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
- 3. Terminal supports the following AIDs: A000000031010, A000000980840

Steps:

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

Pass Criteria:

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

3.3.10.11 PP.SEAS.C03-T04

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- 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: A000000033010

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Interlink' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "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 <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 '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, A000000042203

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, A000000042203

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard Debit' and 'US Maestro'
- 3. User is able to select 'US Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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, A000000042203
- 4. PIN Bypass is supported

Steps:

- 1. Start a Purchase transaction for \$20.00
- 2. When prompted for card entry, tap Test Card 05
- 3. Select 'US Maestro' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

Pass Criteria:

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

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

Pre-Requisites:

- 1. Application is configured as PIN Preferring
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000042203
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Mastercard Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "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 not 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, A000000042203
- 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: A000000043060

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- 3. User is able to select 'Maestro1'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060D0561111" AID selected was 'Maestro1'
 - c. "2010" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

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:

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is 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. "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, A000000043060

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 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: A000000042203

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:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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: A000000042203

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: 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 Savings' application when prompted
- 4. When prompted for PIN, press Enter/Cancel to bypass PIN entry

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Savings'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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: A000000041010, A000000043060 and A000000042203

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'Mastercard'
- 4. When PIN is not entered the transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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: A000000041010, A000000043060 and A000000042203

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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: A000000041010, A000000043060 and A000000042203

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'US Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'US Maestro'
- 4. When PIN is not entered the transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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 <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Prompts the user to enter a PIN

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

- 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 10
- 3. When prompted for PIN, press Enter/Cancel to bypass PIN entry

Pass Criteria:

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

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: A000000041010, A000000043060 and A000000042203

Steps:

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

Pass Criteria:

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

3.3.10.35 PP.SEAS.C11-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 4. Application is configured as PIN Preferring
- 5. Application Selection is Standard EMV Application Selection
- 6. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 7. PIN Bypass is supported

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'Mastercard Debit'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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: A000000041010, A000000043060 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: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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: A000000041010, A000000043060 and A000000042203

Steps:

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

Pass Criteria:

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

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: A000000041010, A000000043060 and A000000042203

Steps:

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

Pass Criteria:

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

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: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'US Savings'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A0000001524010" AID selected was 'US Debit'
 - c. "0005" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

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 <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. Allows the user to bypass PIN entry

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.10.43 PP.SEAS.C12-T03

PP.SEAS.C12-T03 PIN Preferring, Standard EMV Application Selection Card 12 - Test 03

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is prompted to select 'US Debit' and 'Discover Debit'
- 3. User is able to select 'Discover Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A0000001523010" AID selected was 'Discover Debit'
 - c. "0005" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

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

3.3.10.46 PP.SEAS.C12-T06

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.10.48 PP.SEAS.C13-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.10.49 PP.SEAS.C14-T01

PP.SEAS.C14-T01 PIN Preferring, Standard EMV Application Selection Card 14 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is <u>not</u> prompted to select an application
- 3. The 'DNA' application is automatically selected
- 4. The transaction is approved *
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000006200620" AID selected was 'DNA'
 - c. "0028" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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

3.3.10.50 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:

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

Pass Criteria:

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

Comments:

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

3.3.10.51 PP.SEAS.C16-T01

PLEASE READ IMPORTANT NOTES AT THE BEGINING OF SECTION 3.3

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

Type: Contact

Purpose:

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

- 1. Does 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:

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

Pass Criteria:

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

Comments:

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

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

3.3.11.1 CD.MCCL.C01-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

- 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, A000000980840

Steps:

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

Pass Criteria:

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "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 <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Debit' application
- 4. Does <u>not</u> prompt for PIN as the transaction amount is under the Contactless CVM Floor Limit

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000031010, A000000980840
- 4. Contactless CVM Floor limit is above \$10

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. User is not prompted to enter a PIN
- 4. The 'US Debit' application is automatically selected
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "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: A000000980840

Steps:

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

Pass Criteria:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

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, A000000980840

Steps:

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

Pass Criteria:

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

3.3.11.8 CD.MCCL.C03-T02

CD.MCCL.C03-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 03 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit' and 'Visa Debit'
- 3. User is able to select 'Visa Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "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 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, A000000980840

Steps:

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

Pass Criteria:

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

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

Steps:

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

Pass Criteria:

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

3.3.11.11 CD.MCCL.C05-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "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, A000000042203

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Mastercard Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "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 <u>not</u> 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, A000000042203
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "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, A000000042203
- 4. Contactless CVM Floor limit is above \$10

Steps:

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

Pass Criteria:

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

3.3.11.15 CD.MCCL.C06-T01

CD.MCCL.C06-T01 Credit/Debit Prompting, Merchant Controlled Candidate List Card 06 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Maestro1' and 'Maestro2'
- 3. User is able to select 'Maestro1'
- 4. The transaction is approved
- 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

3.3.11.16 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'
- 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

3.3.11.17 CD.MCCL.C07-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 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. "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, A000000043060

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 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

3.3.11.19 CD.MCCL.C07-T03

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 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

3.3.11.20 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: A000000042203

Steps:

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

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

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3.3.11.21 CD.MCCL.C08-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings' only
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203D0561111" AID selected was 'US Checking'
 - c. "9007" last 4 digits of the PAN
 - d. "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: A000000042203

Steps:

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

Pass Criteria:

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

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: A000000041010, A000000043060 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 'Credit'

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard' and 'Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203

Steps:

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

Pass Criteria:

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

- 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 AID: A000000042203

Steps:

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

Pass Criteria:

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

3.3.11.26 CD.MCCL.C10-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203" AID selected was 'US Maestro'
 - c. "9130" last 4 digits of the PAN
 - d. "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')
- 2. Prompts the user for Application Selection by displaying 'Mastercard Debit' and 'Maestro' only
- 3. Allows the user to select the 'Mastercard Debit' application
- 4. Uses Signature/No CVM as the CVM for the transaction

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 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 '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: A000000041010, A000000043060 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 Checking' application when prompted
- 5. Enter PIN ("4315") when prompted

Pass Criteria:

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

3.3.11.29 CD.MCCL.C11-T03

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Merchant Controlled by filtering the Candidate List
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 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 'Credit'
- 4. Select 'Maestro' application when prompted
- 5. Enter PIN ("4315") when prompted

Pass Criteria:

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

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: A000000041010, A000000043060 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:

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

3.3.11.31 CD.MCCL.C12-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.11.32 CD.MCCL.C12-T02

CD.MCCL.C12-T02 Credit/Debit Prompting, Merchant Controlled Candidate List Card 12 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.11.33 CD.MCCL.C13-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.11.34 CD.MCCL.C13-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.11.35 CD.MCCL.C14-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'DNA' application is automatically selected
- 4. The transaction is approved *
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000006200620" AID selected was 'DNA'
 - c. "0028" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

Comments:

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

3.3.11.36 CD.MCCL.C15-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.11.37 CD.MCCL.C16-T01

PLEASE READ IMPORTANT NOTES AT THE BEGINING OF SECTION 3.3

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

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

3.3.12.1 CD.SEAS.C01-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Visa Debit' and 'US Debit'
- 3. User is able to select 'US Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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 <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:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A000000980840
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Visa Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "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 not prompt for Application Selection
- 3. Automatically selects the 'Visa Debit' application
- 4. Does <u>not</u> require a Signature as the transaction amount is under the Contactless CVM Floor Limit

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports AID A000000031010, A000000980840
- 4. Contactless CVM Floor limit is above \$10

Steps:

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

Pass Criteria:

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.12.6 CD.SEAS.C02-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

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, A000000980840

Steps:

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

Pass Criteria:

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

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, A000000980840

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Visa Credit', 'Visa Debit' and 'US Debit'
- 3. User is able to select 'Visa Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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, A000000980840

Steps:

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

Pass Criteria:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AID: A000000033010

Steps:

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

Pass Criteria:

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

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, A000000042203

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard Debit' and 'US Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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, A000000042203

Steps:

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

Pass Criteria:

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

3.3.12.13 CD.SEAS.C05-T03

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

Type: Contactless

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000042203
- 4. Contactless CVM Floor limit is \$0

Steps:

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

Pass Criteria:

- 1. User is not prompted to select 'Credit' or 'Debit'
- 2. User is not prompted to select an application
- 3. The 'Mastercard Debit' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Contactless" indicates card was tapped
 - b. "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 not 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, A000000042203
- 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 <u>not</u> 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'
- 3. User is able to select 'Maestro1'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "A000000043060D0561111" AID selected was 'Maestro1'
 - c. "2010" last 4 digits of the PAN
 - d. "Verified by PIN" PIN CVM was used

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: 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'
- 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, A000000043060

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'Mastercard' and 'Maestro'
- 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. "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
- 3. When prompted, select 'Debit'
- 4. Select 'Mastercard' application when prompted
- 5. Enter PIN ("4315") when prompted

Pass Criteria:

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

3.3.12.20 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
- 3. When prompted, select 'Credit'
- 4. Select 'US Checking' application when prompted

Pass Criteria:

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

3.3.12.21 CD.SEAS.C08-T02

CD.SEAS.C08-T02 Credit/Debit Prompting, Standard EMV Application Selection Card 08 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203D0561111" AID selected was 'US Checking'
 - c. "9007" last 4 digits of the PAN
 - d. "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: A000000042203

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select 'US Checking' and 'US Savings'
- 3. User is able to select 'US Savings'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "A000000042203D0562222" AID selected was 'US Savings'
 - c. "9015" last 4 digits of the PAN
 - d. "Signature panel" or "No signature required" Signature or No CVM was used

3.3.12.23 CD.SEAS.C08-T04

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

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: A000000041010, A000000043060 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 'Credit'
- 4. Select 'Mastercard' application when prompted

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'Mastercard'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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: A000000041010, A000000043060 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. Select 'Maestro' application when prompted
- 5. Enter PIN ("4315") when prompted

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "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: A000000041010, A000000043060 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. Select 'US Maestro' application when prompted
- 5. Enter PIN ("4315") when prompted

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard', 'Maestro' and 'US Maestro'
- 3. User is able to select 'US Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "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 <u>not</u> prompt for Application Selection
- 3. Automatically selects the 'US Maestro' application
- 4. Prompts the user to enter a PIN

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

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

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is not prompted to select an application
- 3. The 'US Maestro' application is automatically selected
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates the card was inserted
 - b. "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: A000000041010, A000000043060 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 'Mastercard Debit' application when prompted
- 5. Enter PIN ("4315") when prompted

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'Mastercard Debit'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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')
- 2. Prompts the user for Application Selection by displaying all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. Allows the user to select the 'Mastercard Debit' application
- 4. Allows the user to bypass PIN entry

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'Mastercard Debit'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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: A000000041010, A000000043060 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 Checking' application when prompted
- 5. Enter PIN ("4315") when prompted

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'US Checking'
- 4. When a PIN is not entered, transaction continues with No CVM or Signature
- 5. The transaction is approved
- 6. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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: A000000041010, A000000043060 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 'Maestro' application when prompted
- 5. Enter PIN ("4315") when prompted

Pass Criteria:

- 1. User is prompted to select 'Credit' and 'Debit'
- 2. User is prompted to select all of the following applications: 'Mastercard Debit', 'US Checking', 'Maestro' and 'US Savings'
- 3. User is able to select 'Maestro'
- 4. The transaction is approved
- 5. Receipt shows:
 - a. "Chip" indicates card was inserted
 - b. "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: A000000041010, A000000043060 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:

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

3.3.12.35 CD.SEAS.C11-T07

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

- 1. Application is configured as Credit/Debit Prompting
- 2. Application Selection is Standard EMV Application Selection
- 3. Terminal supports the following AIDs: A000000041010, A000000043060 and A000000042203
- 4. PIN Bypass is supported

Steps:

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

Pass Criteria:

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

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

3.3.12.37 CD.SEAS.C12-T02

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.12.38 CD.SEAS.C12-T03

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.12.39 CD.SEAS.C12-T04

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

Type:Contactless

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.12.40 CD.SEAS.C12-T05

CD.SEAS.C12-T05 Credit/Debit Prompting, Standard EMV Application List Card 12 - Test 05

Type: Contactless

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.12.41 CD.SEAS.C13-T01

CD.SEAS.C13-T01 Credit/Debit Prompting, Standard EMV Application List Card 13 - Test 01

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.12.42 CD.SEAS.C13-T02

CD.SEAS.C13-T02 Credit/Debit Prompting, Standard EMV Application List Card 13 - Test 02

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

3.3.12.43 CD.SEAS.C14-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.12.44 CD.SEAS.C15-T01

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

3.3.12.45 CD.SEAS.C16-T01

PLEASE READ IMPORTANT NOTES AT THE BEGINING OF SECTION 3.3

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

Type: Contact

Purpose:

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

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

Pre-Requisites:

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

Steps:

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

Pass Criteria:

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

Comments:

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

Chapter 4 - USA Debit EMV Test Card Set Profiles

CAUTION

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

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

NOTICE

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

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

RECOMMENDATION

For those that are relatively new to EMV and seek assistance in understanding 'the basics'... Consider B2's online courses – eLearning and Virtual Training. Learn from the comfort and convenience of your office (or home-office), at your own pace.

Visit: <u>b2ps.com/b2-university</u>

VISA

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

Interac

	Test Card 01	Test Card 02	Test Card 03	
Brand	Visa	Visa	Visa	
Description (Card - Types)	Global / U.S. Common	U.S. Common	Credit / Debit / U.S. Common, Dual- Funding	
AID list	A000000031010 A000000980840	A000000980840	A00000003101001 A00000003101002 A0000000980840	
PAN on plastic	4761 7390 0101 0135	4761 7390 0101 0135	4761 7390 0101 0176	
Expiry Date	12/2024	12/2024	12/2024	
Service Code	201	201	201	
Interface Contact, Contactless, MSR		Contact, MSR	Contact, MSR	
CVM (Contact)Online PIN (MCash)FailDefault Condition: Terminal Supports CVMOnline PIN (CBack)OnSignature Online PINN		Online PIN (ATM) Fail CVM Processing (MCash) Online PIN (CBack) Online PIN No CVM required <u>See card definition</u>	Online PIN (ATM) Online PIN (MCash) Signature (MCash) Fail CVM Processing (CBack) Signature No CVM required Fail CVM Processing See card definition	
Approval Amount \$10.00		\$10.00	\$10.00	
Issuer Country Code	840 - USA	840 - USA	840 - USA	
Application Currency Code	840 - USD	840 - USD	840 - USD	
Language	'en' - English	'en' - English	ʻen' - English	
Card Version	v5.x	v5.x	v7.x	

	Test Card 04	Test Card 05	Test Card 06
Brand	Brand Visa		Mastercard
Description (Card + types)	Interlink	Global / Common	Maestro Dual-Funding
AID list	A000000033010	A0000000041010 A0000000042203	A000000043060 D0561111 A000000043060 D05621222
PAN on plastic	4761 7310 0000 0084	5413 3300 8909 9130	67999 9890 0000 2010
Expiry Date	12/2024	12/2025	12/2025
Service Code 221		201	220
Interface	Contact, MSR	Contact, Contactless, MSR	Contact, MSR
CVM (Contact) Default Condition: <i>Terminal Supports CVM</i>	Online PIN No CVM required See card definition	Online PIN (ATM) Online PIN (CBack) Signature Online PIN No CVM required See card definition	Offline Plaintext PIN Online PIN (CBack) Fail CVM Processing <u>See card definition</u>
Approval Amount	\$10.00	\$20.00	\$20.00
Issuer Country Code	Issuer Country Code 840 - USA		528 - NLD
Application Currency Code	Application Currency Code 840 - USD		978 - EUR
Language	Language 'en' - English		'en' - English
Card Version v5.x		v6.x	v5.x

	Test Card 07	Test Card 08	Test Card 09
Brand	Mastercard	Mastercard	Mastercard
Description	Credit / Int'l	U.S. Maestro - Dual- Funding	Credit / Global / U.S. Common
AID list	A0000000041010 A00000000043060	A0000000042203 D0561111 A0000000042203 D0562222	A0000000041010 A0000000043060 A0000000042203
PAN on plastic	5413 3300 8902 0060	5413 3300 8909 9007	5413 3300 8902 0060
Expiry Date	12/2025	12/2025	12/2025
Service Code	201 220		201
Interface	Contact, MSR	Contact, MSR	Contact, MSR
CVM (Contact) Default Condition: <i>Terminal Supports CVM</i>	Offline Plaintext PIN Online PIN Signature No CVM required Fail CVM Processing See card definition	Online PIN (CBack) Online PIN No CVM required Fail CVM Processing See card definition	Offline Plaintext PIN Online PIN Signature No CVM required Fail CVM Processing See card definition
Approval Amount	\$20.00	\$20.00	\$20.00
Issuer Country Code	826 - GBR	840 - USA	840 - USA
Application Currency Code	826 - GBP	840 - USD	840 - USD
Language	'en' - English	'en' - English	'en' - English
Card Version	v5.x	v5.x	v5.x

	Test Card 10	Test Card 11	Test Card 12
Brand	Brand Mastercard		Discover
Description	U.S. Maestro	MC+U.S. Maestro / Maestro+U.S. Maestro	Discover U.S. Debit / Discover
AID list	A0000000042203	A0000000041010 A000000004220301 A0000000043060 A000000004220302	A0000001524010 A0000001523010
PAN on plastic	5413 3300 8909 9130	5413 3300 8902 0060	6011 9737 0000 0138
Expiry Date	12/2025	12/2025	05/2026
Service Code	220	201	201
Interface	Contact, Contactless, MSR	Contact, MSR	Contactless, Contact, MSR
CVM (Contact) Default Condition: <i>Terminal Supports CVM</i>	Online PIN (CBack) Online PIN No CVM required <u>See card definition</u>	Online PIN (CBack) Offline Plaintext PIN Online PIN Signature (paper) No CVM required See card definition	Online PIN No CVM required See card definition
Approval Amount	\$20.00	\$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 v7.x		v5.x	v7.x

	Test Card 13	Test Card 14	Test Card 15
Brand	Discover	DNA	Interac
Description	Single AID	Debit Network Alliance	Canadian Debit
AID list	A0000001524010	A000006200620	A000002771010
PAN on plastic	6011 9737 0000 0120	4000 0000 0000 0028	0012 0300 0000 0003
Expiry Date	05/2026	12/2025	12/2028
Service Code	201	201	220
Interface	Contact, MSR	Contact, MSR	Contactless, Contact, MSR
CVM (Contact) Default Condition: <i>Terminal Supports CVM</i>	Online PIN No CVM required See card definition	Online PIN (ATM) Online PIN (MCash) Online PIN No CVM required See card definition	Offline Enciphered PIN Offline Plaintext PIN Online PIN <u>See card definition</u>
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	v6.x	v6.x	v7.x

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

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

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

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

4.1.1 Contact: CVM List - Visa Debit, AID A000000031010

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

4.1.2 Contact: Application Tag data, AID A000000031010

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	56 49 53 41 20 44 45 42 49 54 20 20 20 20 20 20 - 'VISA DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 41 22 01 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	24 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VIS]	 18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset
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

-	10
Вй	╯≫

-		
Tag	Element name	Data Card v5.x
8D	Card Risk Management Data Object List	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91
	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 00 02 01 42 04
02	List	1E 04 02 05 5E 00 42 00 1F 00
94	Application File Locator (AFL)	08 01 02 00
9F 07	Application Usage Control	FF 80
0. 0.		BYTE 1:
		b8 - Domestic cash trans. valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number [VIS]	00 96
9F 0D	Issuer Action Code - Default	FC 50 AC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC 70 BC 98 00
9F 10	Issuer Application Data [VSDC]	xx xx 0A xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 20 - 'Visa Debit'
0 12	Last Online Application Transaction	xx xx *
9F 13	Last Online Application Transaction Counter (ATC) Register	
9F 17	Personal Identification Number (PIN)	03
51 17	Try Counter	
9F 24	Payment Account Reference (PAR)	56 30 30 31 30 30 31 33 30 31 36 31
0. 2.		37 33 31 30 36 36 39 33 30 33 37 34
		38 39 33 30 33
9F 26	Application Cryptogram (AC)	C4 87 AB 1C 1A 67 97 B7
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
	Application Currency Code ()(CDC)	1A 02 95 05 9C 01 9F 27 01
9F 51	Application Currency Code [VSDC]	08 40 - USD 00 00 00 00 00 00
9F 52	Application Default Action [VSDC VIS	
9F 56	1.5] Issuer Authentication Indicator [VSDC]	80
9F 56 9F 57		08 40 - USA
9F 57 9F 5D	Issuer Country Code [VSDC] Available Offline Spending Amount	00 00 00 00 00 00
9- 30	[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	
BF 5A	AIP/AFL Entries Template	
BF 5B	Application Internal Data Template	DF 01 02 00 00
2.00		* Tag value changes with card usage

* Tag value changes with card usage

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

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

4.1.4 Contact: Application Tag data, AID A000000980840

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	55 53 20 44 45 42 49 54 20 20 20 20
		20 20 20 20 - 'US DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 41 22 01
		19 55 94 58 00 00 0F 47 61 73 90 01 01 01 35
5A	Application Primary Account Number (PAN)	
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 30 31 20 20
55.04	Application Expiration Data	20 20 - 'USA DEBIT/Test Card 01' 24 12 31
5F 24	Application Expiration Date	xx xx xx *
5F 25	Application Effective Date	
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English) 02 01
5F 30	Service Code	
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VIS]	18 00 BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2: b8 - Use for Visa NOT supported
		b7 - Is NOT Mobile handset
84	Dedicated File (DF) Name	A0 00 00 00 98 08 40
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04
8D	Card Risk Management Data Object List	8A 02 9F 02 06 9F 03 06 9F 1A 02 95
	2 (CDOL2)	05 5F 2A 02 9A 03 9C 01 9F 37 04 91
	· · · ·	0A
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 01 02 05
	List	42 00 1F 00 00 00 00 00
94	Application File Locator (AFL)	08 01 02 00

9F 07	Application Usage Control	AB 80 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number [VIS]	00 96
9F 0D	Issuer Action Code - Default	FC 50 AC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC 70 BC 98 00
9F 10	Issuer Application Data [VSDC]	xx xx 0A xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 44 65 62 69 74 20 20 20 20 20
05.40		20 20 20 20 - 'US Debit'
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *
9F 17	Personal Identification Number (PIN)	03
	Try Counter	
9F 24	Payment Account Reference (PAR)	56 30 30 31 30 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 33 37 34 38 39 33 30 33
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 05
9F 42	Application Currency Code	08 40 - USD
9F 44	Application Currency Exponent	02
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 9F 27 01
9F 51	Application Currency Code [VSDC]	08 40 - USD
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00 00 00
9F 56	Issuer Authentication Indicator [VSDC]	80
9F 57	Issuer Country Code [VSDC]	08 40 - USA
9F 5D	Available Offline Spending Amount [VSDC]	00 00 00 00 00 00
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	10 00 80 00
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	
BF 5A	AIP/AFL Entries Template	
BF 5B	Application Internal Data Template	DF 01 02 00 00

* Tag value changes with card usage

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	56 49 53 41 20 44 45 42 49 54 20 20
		20 20 20 20 - 'VISA DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 41 22 01
		19 55 94 58 00 00 1F
5A	Application Primary Account Number	47 61 73 90 01 01 01 35
	(PAN)	
5F 24	Application Expiration Date	24 12 31
5F 28	Issuer Country Code	08 40
5F 2D	Language Preference	65 6E
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VCPS]	00 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification NOT supported
		b4 - Terminal risk mgmt NOT to be performed b3 - Issuer authentication NOT supported via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - Use for Visa NOT supported
		b7 - Is NOT Mobile handset
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 trans. valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods NOT valid b5 - International goods NOT valid
		b4 - Domestic services NOT valid
		b3 - International services NOT valid
		b2 - ATMs NOT valid
		b1 - non-ATM terminals NOT valid
		BYTE 2:
		b8 - Domestic cashback allowed
05.40		b7 - International cashback NOT allowed
9F 10	Issuer Application Data [VCPS 2.2]	xx xx 12 xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 - 'Visa Debit'
0E 40	Last Opling Application Transaction	20 20 20 - VISA DEDIT
9F 13	Last Online Application Transaction	AA AA "
05 47	Counter (ATC) Register	02
9F 17	Counter (ATC) Register Personal Identification Number (PIN)	03
	Counter (ATC) Register Personal Identification Number (PIN) Try Counter	
9F 17 9F 24	Counter (ATC) Register Personal Identification Number (PIN)	56 30 30 31 30 30 31 33 30 31 36 31
	Counter (ATC) Register Personal Identification Number (PIN) Try Counter	56 30 31 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 31 36 31
9F 24	Counter (ATC) Register Personal Identification Number (PIN) Try Counter Payment Account Reference (PAR)	56 30 30 31 30 30 31 33 30 31 36 31
9F 24 9F 26	Counter (ATC) Register Personal Identification Number (PIN) Try Counter Payment Account Reference (PAR) Application Cryptogram (AC)	56 30 31 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 31 36 31 38 39 33 30 33 33 33 33
9F 24 9F 26 9F 27	Counter (ATC) Register Personal Identification Number (PIN) Try Counter Payment Account Reference (PAR) Application Cryptogram (AC) Cryptogram Information Data (CID)	56 30 31 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 33 37 34 38 39 33 30 33 33 33 37 34 38 39 33 30 33 33 33 33 xx xx xx xx xx xx xx x 33 80 30 31 30 31 30 31 30 31 33 37 34
9F 24 9F 26 9F 27 9F 36	Counter (ATC) Register Personal Identification Number (PIN) Try Counter Payment Account Reference (PAR) Application Cryptogram (AC) Cryptogram Information Data (CID) Application Transaction Counter (ATC)	56 30 31 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 33 37 34 38 39 33 30 33 33 37 34 38 39 33 30 33 37 34 38 39 33 30 33 37 34 80 xx xx xx xx xx 80 xx xx * xx xx *
9F 24 9F 26 9F 27	Counter (ATC) Register Personal Identification Number (PIN) Try Counter Payment Account Reference (PAR) Application Cryptogram (AC) Cryptogram Information Data (CID) Application Transaction Counter (ATC) Processing Options Data Object List	56 30 31 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 33 37 34 38 39 33 30 33 33 33 37 34 38 39 33 30 33 33 33 37 34 38 39 33 30 33 33 37 34 38 39 33 30 33 33 33 37 34 38 39 33 30 33 33 37 34 80
9F 24 9F 26 9F 27 9F 36 9F 38	Counter (ATC) Register Personal Identification Number (PIN) Try Counter Payment Account Reference (PAR) Application Cryptogram (AC) Cryptogram Information Data (CID) Application Transaction Counter (ATC) Processing Options Data Object List (PDOL)	56 30 31 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 31 36 31 38 39 33 30 33 30 33 37 34 38 39 33 30 33 30 33 37 34 38 39 33 30 33 30 33 37 34 38 39 33 30 33 30 33 37 34 38 39 33 30 33 30 33 30 33 37 34 38 39 33 30 33 30 33 30 33 30 33 37 34 38 39 33 30 33 XX XX XX XX XX X X X X X X X X X X X X X </td
9F 24 9F 26 9F 27 9F 36	Counter (ATC) Register Personal Identification Number (PIN) Try Counter Payment Account Reference (PAR) Application Cryptogram (AC) Cryptogram Information Data (CID) Application Transaction Counter (ATC) Processing Options Data Object List	56 30 31 30 31 33 30 31 36 31 37 33 31 30 36 36 39 33 30 33 37 34 38 39 33 30 33 33 33 37 34 38 39 33 30 33 33 33 37 34 38 39 33 30 33 33 37 34 38 39 33 30 33 33 33 37 34 38 39 33 30 33 33 37 34 80

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

9F 52	Application Default Action [VSDC VIS 1.6]	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 2.2]	10 00 10 00
9F 69	Card Authentication Related Data [qVSDC]	010000000000BYTE 1:b8 - Online PIN NOT requiredb7 - Signature NOT requiredb6 - Do NOT go online if Offline DataAuthentication fails and Reader is onlinecapableb5 - Do NOT switch interface if Offline DataAuthentication fails and Reader supportscontact chipb4 - Do NOT go Online if Application Expiredb3 - Do NOT switch interface for CashTransactionsb2 - Do NOT switch interface for CashbackTransactionsb1 - Is valid for contactless ATM transactionsBYTE 2:b8 - Consumer Device CVM NOT performedb7 - Card does NOT Support Issuer UpdateProcessing at POS
9F 6C	Card Transaction Qualifiers [qVSDC VCPS 2.2]	00 00
9F 6E	Form Factor Indicator [qVSDC]	20 70 00 00
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	
BF 5A	AIP/AFL Entries Template	
BF 5B	Application Internal Data Template	DF 01 02 00 00

* Tag value changes with card usage

4.1.6 CTLS: Application Tag data, AID A000000980840, (qVSDC, offline)

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



82	Application Interchange Profile [VCPS]	00 00 BYTE 1:									
		b7 - Offline SDA NOT supported									
		b6 - Offline DDA NOT supported b5 - Cardholder verification NOT supported									
		b4 - Terminal risk mgmt NOT to be performed									
		b3 - Issuer authentication NOT supported via									
		EXTERNAL AUTH command									
		b1 - Combined DDA / GEN AC NOT supported									
		BYTE 2:									
		b8 - Use for Visa NOT supported									
		b7 - Is NOT Mobile handset									
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10									
87	Application Priority Indicator	01									
9F 10	Issuer Application Data [VSDC]	xx xx 12 xx xx xx xx *									
9F 11	Issuer Code Table Index	01									
9F 12	Application Preferred Name	56 69 73 61 20 44 65 62 69 74 20 20									
		20 20 20 - 'Visa Debit'									
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *									
9F 17	Personal Identification Number (PIN) Try Counter	03									
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *									
9F 27	Cryptogram Information Data (CID)	80									
9F 36	Application Transaction Counter (ATC)	xx xx *									
9F 38	Processing Options Data Object List (PDOL)	9F 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	00 00 00 00 00 00									
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	10 00 10 00									
9F 6C	Card Transaction Qualifiers [qVSDC VCPS 2.1]	00 00									
9F 6E	Form Factor Indicator [qVSDC]	20 70 00 00									
BF 55	Contactless Counters Data Template										
BF 56	Counters Data Template										
BF 57	International Counters Data Template										
BF 58	Amounts Data Template										
BF 59	Profile Controls Template										
BF 5A	AIP/AFL Entries Template										
BF 5B	Application Internal Data Template	DF 01 02 00 00									
<u>.</u>	· ·· ·	* Tag value changes with card usage									

4.2 Test Card 02 - Visa, CO, 1-AID (US Debit), English, USA, USD

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

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

4.2.1 Contact: CVM List - US Debit, AID - A000000980840

Cardholder Verification Method List ('0201 0004 0205 4200 1F00')						
CVM	Verification Method	Conditions	If unsuccessful			
1	Online PIN	Unattended Cash	Fail			
2	Fail CVM Processing	Manual Cash	Fail			
3	Online PIN	Purchase with Cashback	Fail			
4	Online PIN	Always	Next CVM			
5	No CVM required	Always	Fail			

4.2.2 Contact: Application Tag data, AID A000000980840

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	55 53 20 44 45 42 49 54 - 'US DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 41 22 01
		19 55 94 58 00 00 OF
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
FE 04	Application Expiration Data	20 - 'USA DEBIT/Test Card 02' 24 12 31
5F 24	Application Expiration Date	xx xx xx *
5F 25	Application Effective Date	08 40 - USA
5F 28	Issuer Country Code	65 6E - 'en' (English)
5F 2D	Language Preference	
5F 30	Service Code	01
5F 34	Application PAN Sequence Number	55 53 - 'US'
5F 55 82	Issuer Country Code (alpha2 format) Application Interchange Profile [VIS]	18 00
		BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset A0 00 00 00 98 08 40
84	Dedicated File (DF) Name	
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 02 01 00 04 02 05 42 00 1F 00



-							
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					
52		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 05 01 B0 01 01 00					
9F 07	Application Usage Control	AB 80					
01 01	Application Obage Control	BYTE 1:					
		b8 - Domestic cash trans. valid					
		b7 - Int'l cash transactions NOT valid					
		b6 - Domestic goods valid					
		b5 - International goods NOT valid					
		b4 - Domestic services valid					
		b3 - International services NOT valid					
		b2 - ATMs valid					
		b1 - non-ATM terminals valid BYTE 2:					
		b8 - Domestic cashback allowed					
		b7 - International cashback NOT allowed					
9F 08	Application Version Number [VIS]	00 96					
9F 0D	Issuer Action Code - Default	FC 50 AC 88 00					
9F 0E	Issuer Action Code - Denial	00 00 00 00 00					
9F 0F	Issuer Action Code - Online	FC 70 BC 98 00					
9F 10	Issuer Application Data [VSDC]	xx xx 0A xx xx xx xx *					
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 *					
51 15							
	Counter (ATC) Register	03					
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					
05.00	Application Originations (AO)	20 20 20 20 20 20 20 20 20 20 20 20 20 2					
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *					
9F 27	Cryptogram Information Data (CID)	80					
9F 32	Issuer Public Key Exponent	03					
9F 36	Application Transaction Counter (ATC)	xx xx *					
9F 44	Application Currency Exponent	02					
		•					

9F 46	ICC Public Key Certificate	03	в8	82	2C	E3	88	09	BF	CE	61	BF	25
	,	91	. –	DE		-				E2		-	13
			-	-	-	-		-		F1		-	12
				-		-		-		D3 1F		-	
			-	-	-				-	D0	-	-	
										70			22
										C2			62
		8D	4C	6C	BA	91	44	33	59	35	2C	1D	70
										9F			
										DE			
										4B			
				-	-					F0 96	-		-
		-	EC	-		-	-		-	90	AT	AD	тр
9F 47	ICC Public Key Exponent	03	10		50	01	23	-10	1.5				
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	- U	SD								
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]												
9F 5E	Consecutive Transaction International	00											
	Upper Limit [VSDC]												
9F 72	Consecutive Transaction Limit	00											
	(International-Country) [VSDC]												
BF 56	Counters Data Template	DF	11	01	01	DF	21	01	00	DF	31	01	00
BF 57	International Counters Data Template									DF	31	01	00
			51										
BF 58	Amounts Data Template		11			00		00			DF		
		00			00	00	00	DF	31	06	00	00	00
		00	00	00									

* Tag value changes with card usage

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

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

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

4.3.1 Contact: CVM List - Visa Credit, AID - A00000003101001

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

4.3.2 Contact: Application Tag data, AID A00000003101001

Tag	Element name	Data Card v7.x
50	Application Label	56 49 53 41 20 43 52 45 44 49 54 20
00		20 20 20 20 - 'VISA CREDIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 76 D2 41 22 01
	•	14 83 53 94 00 00 OF
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 76
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 30 33 20 20
		20 20 - 'USA DEBIT/Test Card 03'
5F 24	Application Expiration Date	24 12 31
5F 28	Issuer Country Code	08 40
5F 2D	Language Preference	65 6E
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile [VIS]	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - Use for Visa NOT supported
		b7 - Is NOT Mobile handset
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10 01
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	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
05		0A
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 00 02 01 42 04 1E 04 00 05 5E 00 1F 00 00 00
	List	TE 04 00 05 5E 00 TE 00 00 00

Tog	Element nome	
Tag	Element name	Data Card v7.x 08 01 01 00 10 01 01
94	Application File Locator (AFL)	
9F 07	Application Usage Control	FF 00 BYTE 1:
		b8 - Domestic cash trans. valid
		bo - Domestic cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid BYTE 2:
		bille 2. b8 - Domestic cashback NOT allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number [VIS]	00 96
9F 0D	Issuer Action Code - Default	FC 50 AC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC 70 BC 98 00
9F 10	Issuer Application Data [VSDC]	xx xx 0A xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	56 69 73 61 20 43 72 65 64 69 74 20
51 12		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 xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List	9F 06 07
	(PDOL)	
9F 44	Application Currency Exponent	02
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
••••		1A 02 95 05 9C 01 9F 27 01
9F 51	Application Currency Code [VSDC]	08 40 - USD
9F 52	Application Default Action [VSDC VIS	00 00 00 00 00 00
	1.5]	
9F 56	Issuer Authentication Indicator [VSDC]	00
9F 57	Issuer Country Code [VSDC]	08 40 - USA
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	DF 11 0B 10 00 00 00 00 00 00 00 00
		00 00 DF 12 0B 20 00 00 00 00 00 00
		00 00 00 00
BF 5A	AIP/AFL Entries Template	DF 11 0B 18 00 08 08 01 01 00 10 01 01 01
BF 5B	Application Internal Data Tomplata	DF 01 02 C0 00 DF 02 01 F1
DF JD	Application Internal Data Template	

4.3.3 Contact: CVM List - Visa Debit, AID A00000003101002

Cardho	Cardholder Verification Method List ('0201 4204 1E04 0005 5E00 1F00 0000')			
CVM	Verification Method	Conditions	If unsuccessful	
1	Online PIN	Unattended Cash	Fail	
2	Online PIN	Manual Cash	Next CVM	
3	Signature (paper)	Manual Cash	Fail	
4	Fail CVM Processing	Purchase with Cashback	Fail	
5	Signature (paper)	Always	Next CVM	
6	No CVM required	Always	Fail	
7	Fail CVM Processing	Always	Fail	

4.3.4 Contact: Application Tag data, AID A00000003101002

Tag	Element name	Data Card v7.x
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	56 49 53 41 20 44 45 42 49 54 20 20
		20 20 20 20 - 'VISA DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 41 22 01
		14 83 53 94 00 00 0F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 30 33 20 20
55.04		20 20 - 'USA DEBIT/Test Card 03' 24 12 31
5F 24	Application Expiration Date	08 40
5F 28	Issuer Country Code	08 40 65 6E
5F 2D	Language Preference	
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US' 18 00
82	Application Interchange Profile [VIS]	BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10 02
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 02 01 42 04 1E 04 02 05 5E 00 42 00 1F 00 00 00
94	Application File Locator (AFL)	08 01 01 00 10 01 01 00

Tag	Element name	Data Card v7.x
9F 07	Application Usage Control	FF 80
		BYTE 1:
		b8 - Domestic cash trans. valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
0 - 00		b7 - International cashback NOT allowed
9F 08	Application Version Number [VIS]	00 96
9F 0D	Issuer Action Code - Default	FC 50 AC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC 70 BC 98 00
9F 10	Issuer Application Data [VSDC]	xx xx 0A xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	56 69 73 61 20 44 65 62 69 74 20 20
		20 20 20 20 - 'Visa Debit'
9F 13	Last Online Application Transaction	xx xx *
	Counter (ATC) Register	
9F 17	Personal Identification Number (PIN)	00
	Try Counter	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List	9F 06 07
	(PDOL)	
9F 44	Application Currency Exponent	02
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
05.54		1A 02 95 05 9C 01 9F 27 01
9F 51	Application Currency Code [VSDC]	08 40 - USD 00 00 00 00 00 00
9F 52	Application Default Action [VSDC VIS	
05.50	1.5]	
9F 56	Issuer Authentication Indicator [VSDC]	00
9F 57	Issuer Country Code [VSDC]	08 40 - USA
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	DF 11 0B 10 00 00 00 00 00 00 00 00
		00 00 DF 12 0B 20 00 00 00 00 00 00
	AID/AEL Entring Tomplate	00 00 00 00 DF 11 0B 18 00 08 08 01 01 00 10 01
BF 5A	AIP/AFL Entries Template	01 00 DF 12 0B 18 00 08 08 01 01 00 10 01 01 00 DF 12 0B 18 00 08 08 01 01 00
		10 02 02 00
BF 5B	Application Internal Data Template	DF 01 02 C0 00 DF 02 01 F1

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

Cardho	Cardholder Verification Method List ('0201 0004 0205 4200 1F00 0000')			
CVM	Verification Method	Conditions	If unsuccessful	
1	Online PIN	Unattended Cash	Fail	
2	Fail CVM Processing	Manual Cash	Fail	
3	Online PIN	Purchase with Cashback	Fail	
4	Online PIN	Always	Next CVM	
5	No CVM required	Always	Fail	

4.3.6 Contact: Application Tag data, AID A000000980840

Tag	Element name	Data Card v7.x
42	Issuer Identification Number (IIN)	47 61 73
50	Application Label	55 53 20 44 45 42 49 54 20 20 20 20
		20 20 20 20 - 'US DEBIT'
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 35 D2 41 22 01
		14 83 53 94 00 00 0F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 35
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 30 33 20 20
55.04		20 20 - 'USA DEBIT/Test Card 03' 24 12 31
5F 24	Application Expiration Date	08 40
5F 28	Issuer Country Code	
5F 2D	Language Preference	65 6E
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile [VIS]	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset
84	Dedicated File (DF) Name	A0 00 00 00 98 08 40
87	Application Priority Indicator	03
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 02 01 00 04 02 05 42 00 1F 00 00 00
94	Application File Locator (AFL)	08 01 01 00 10 02 02 00

Tag	Element name	Data Card v7.x
9F 07	Application Usage Control	AB 80
9F 07	Application Usage Control	BYTE 1:
		b8 - Domestic cash trans. valid
		b7 - Int'l cash transactions NOT valid
		b6 - Domestic goods valid
		b5 - International goods NOT valid
		b4 - Domestic services valid
		b3 - International services NOT valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
05.00	Application Marcian Number (MC)	b7 - International cashback NOT allowed 00 96
9F 08	Application Version Number [VIS]	
9F 0D	Issuer Action Code - Default	FC 50 AC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC 70 BC 98 00
9F 10	Issuer Application Data [VSDC]	xx xx 0A xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 44 65 62 69 74 20 20 20 20
		20 20 20 20 - 'US Debit'
9F 13	Last Online Application Transaction	xx xx *
	Counter (ATC) Register	
9F 17	Personal Identification Number (PIN)	00
	Try Counter	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List	9F 06 07
	(PDOL)	
9F 44	Application Currency Exponent	02
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
05.54		1A 02 95 05 9C 01 9F 27 01
9F 51	Application Currency Code [VSDC]	08 40 - USD
9F 52	Application Default Action [VSDC VIS	00 00 00 00 00 00
	1.5]	
9F 56	Issuer Authentication Indicator [VSDC]	00
9F 57	Issuer Country Code [VSDC]	08 40 - USA
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	DF 11 0B 10 00 00 00 00 00 00 00 00 00
		00 00 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
	Proprioditori internai Data Template	

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	CVM Verification Method Conditions If unsuccessful		If unsuccessful
1	Online PIN	Terminal supports CVM Type	Fail
2	No CVM required	Terminal supports CVM Type	Fail

4.4.2 Contact: Application Tag data, AID A000000033010

Tag	Element name	Data Card v5.x
50	Application Label	49 4E 54 45 52 4C 49 4E 4B -
		'INTERLINK'
57	Track 2 Equivalent Data	47 61 73 10 00 00 00 84 D2 41 22 21 13 50 61 46 89 00 0F
5A	Application Primary Account Number	47 61 73 10 00 00 00 84
0/1	(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 34 20 20
		20 20 - 'USA DEBIT/Test Card 04'
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 21
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile [VIS]	1C 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed b3 - Issuer authentication supported via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - Use for Visa NOT supported
		b7 - Is NOT Mobile handset
84	Dedicated File (DF) Name	A0 00 00 00 03 30 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	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 00 02 03 1F 03
	List	
8F	Certification Authority Public Key Index	92
		1

Ter		Dete
Tag 90	Element name Issuer Public Key Certificate	Data Card v5.x 3C 96 F7 65 8F BC 29 A2 02 F1 91 46
90	Issuer Public Key Certificate	BD E9 21 66 B0 F6 22 1B BC CB 02 E3
		26 71 0B 9E 22 9D 16 FA E9 AD 0C 87
		4C 06 85 91 6E 19 F0 E3 26 93 EE 20
		1B CE 23 59 50 9A 6D 65 72 F8 EC 3F
		C3 73 12 6B 34 3F 9C B8 15 3D 61 B7 EA B2 D4 2D E1 9D 56 08 31 85 A0 3D
		D1 4C 26 8D 40 DF 08 35 C5 5E AB FA
		38 ED 28 BC E4 2C D0 01 3D A9 4F 80
		05 18 B7 53 C2 46 EF FB A0 8F D2 02
		9B AD 5D FC F0 DA F0 7B 7D 80 1C 46
		5F FD 25 2C 70 B9 21 53 B3 30 D9 5D
		CA 2F A1 FA AE 2D 01 68 A4 EA 8B 47 5C D8 05 DC 32 AA 96 4C 17 BF CD 2C
		D5 D0 30 9A B0 EA 76 1B
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	3D 1B F8 22 20 C2 58 AF A2 7D 72 4F
		OF E8 74 D7 73 89 E1 61 16 D7 AD 63 C0 57 C0 A7 EA 8B 55 06 45 61 65 E6
		DA 6E 3D 87 8F 82 A2 9C 2D 11 F7 D1
		35 51 C0 4F CB BE 60 77 8A 26 0B FF
		E5 69 17 1A OD OF 40 12 18 21 33 6C
		5B 29 F1 2E 67 4C C3 E8 BD 82 63 8F
		2F 75 3D 29 FF C6 1F 7F C9 71 6F 5B 82 A8 13 C8 75 BC 8E 0B 17 BF 13 06
		65 94 B6 A5 DC 54 1F 75 58 90 3F 54
		22 OF AB 90 3B 84 DC B7 DD 4E 44 3E
		05 6F A0 54 96 8E 0F 9F 9D A7 EC 92
		D4 B7 AC 52 A3 47 2E E7 6E 19 05 2A
		B9 30 C5 D4 64 3E 73 21 0B 7F E4 19
94	Application File Locator (AFL)	31 81 2B 1A 38 36 B6 5D 10 01 01 00 10 02 05 01 10 08 08 00
94		B0 01 01 00
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid BYTE 2:
		b 1 E 2. b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number [VIS]	00 96
9F 0D	Issuer Action Code - Default	в0 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 0A xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	49 6E 74 65 72 6C 69 6E 6B - 'Interlink'
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *
9F 17	Personal Identification Number (PIN) Try Counter	09
9F 1F	Track 1 Discretionary Data	31 33 35 30 36 30 30 31 34 36 30 30 30 <t< td=""></t<>
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
51 21		

Tag	Element name	Data Card v5.	x
9F 32	Issuer Public Key Exponent	03	~
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	99 78 79 D1 6F BD 5A 24 C6 08 B9 2	в
	·	F2 72 36 15 24 EB 92 9C 23 DD 60 F	
		65 81 96 DF AA 2B E1 0A 60 9A 72 2 42 0E A5 69 F7 EB 8D 47 64 BF E0 0	
		1F 62 8D 9B CA 3C 71 0E 11 C6 64 D	
		65 FB CF 1D 04 0B 17 42 12 46 C3 1	
		45 0D 39 31 0B D8 6C D5 C8 23 99 03	3
		A2 75 51 5C D4 6A B0 82 2E BD 47 1	
		02 30 D9 0D 87 60 A4 1C 94 DC EB A	
		15 1A 66 D7 82 27 AF F8 9E AB C0 3 B0 28 18 7F 43 9E 55 85 95 C8 F8 F	
		5E 07 1F 93 55 D7 50 3A 4D 8B 5A 70	
		B2 A0 3C FD E9 74 73 09 9A 8E 8A A	
		D2 37 BB E8 12 3E 4C 7C E9 71 A5 2	8
		F1 FE C3 FD DF B1 E0 6A	
9F 47	ICC Public Key Exponent	03	
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04	
9F 4A	Static Data Authentication Tag List	82	
9F 51	Application Currency Code [VSDC]	08 40 - USD	
9F 52	Application Default Action [VSDC VIS 1.5]	CO 00 00 00 00 00	
9F 53	Consecutive Transaction Limit (International) [VSDC]	00	
9F 54	Cumulative Total Transaction Amount Limit [VSDC]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [VSDC]	80	
9F 57	Issuer Country Code [VSDC]	08 40 - USA	
9F 58	Consecutive Transaction Counter Limit	00	
9F 59	Consecutive Transaction Counter Upper Limit [VSDC]	00	
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 00 00 00	
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	00	
BF 56	Counters Data Template	DF 11 01 01 DF 21 01 00 DF 31 01 0	
BF 57	International Counters Data Template	DF 11 01 00 DF 21 01 00 DF 31 01 0 DF 51 01 00	
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00 DF 21 0 00 00 00 00 00 00 DF 31 06 00 00 00 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

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

4.5.2 Contact: Application Tag data, AID A000000041010

Tag	Element name	Data Card v6.x
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	4D 41 53 54 45 52 43 41 52 44 20 44
		45 42 49 54 - 'MASTERCARD DEBIT'
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 51 22 01
		14 83 59 49 00 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 30 35 20 20 20 20 - 'USA DEBIT/Test Card 05'
55.04	Application Expiration Data	25 12 31
5F 24	Application Expiration Date	xx xx xx *
5F 25	Application Effective Date	08 40 - USA
5F 28	Issuer Country Code	
5F 2D	Language Preference	65 6E - 'en' (English) 02 01
5F 30	Service Code	
5F 34	Application PAN Sequence Number	11
5F 55 82	Issuer Country Code (alpha2 format) Application Interchange Profile	55 53 - 'US' 18 00
		BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 42 01 02 05 5E 03 42 03 1F 00

Tog		Data Card v6 v	
Tag 94	Element name	Data Card v6.x	
	Application File Locator (AFL)	10 01 03 00	
94	Application File Locator (AFL)	FF C0	
9F 07	Application Usage Control	BYTE 1:	
		b8 - Domestic cash trans. valid	
		b7 - Int'l cash transactions valid	
		b6 - Domestic goods valid	
		b5 - International goods valid	
		b4 - Domestic services valid	
		b3 - International services valid	
		b2 - ATMs valid	
		b1 - non-ATM terminals valid BYTE 2:	
		b8 - Domestic cashback allowed	
		b7 - International cashback allowed	
9F 08	Application Version Number	00 02	
9F 0D	Issuer Action Code - Default	B0 50 9C 88 00	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00	
9F 10	Issuer Application Data [M/Chip	xx 10 xx	
91 10	Advance]	xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 11 9F 12		4D 61 73 74 65 72 63 61 72 64 20 44	
96 12	Application Preferred Name	65 62 69 74 - 'Mastercard Debit'	
9F 14	Counter 1 Lower Limit [Mastercard]	00	
9F 17	Personal Identification Number (PIN)	03	
51 17	Try Counter		
9F 23	Counter 1 Upper Limit [Mastercard]	00	
9F 23 9F 24	Payment Account Reference (PAR)	35 30 30 31 41 42 43 44 45 46 47 48	
96 24	Fayment Account Reference (FAR)	49 4A 4B 4C 4D 4E 4F 50 51 52 53 54	
		55 56 57 58 59	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 36	Application Transaction Counter (ATC)	00 OF	
9F 42	Application Currency Code	08 40 - USD	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F	
		36 02 9F 52 06 DF 3E 01 9F 21 03 9F	
		7C 14	
9F 6E	Third Party Data [Mastercard]	08 40 00 00 30 30 00	
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00	
		A0 00 00 00 04 10 10 00 00 00 00 00	
		00 00 00 00 00 96 00 97 02 00 5A 5A 00 00 00 00 00 00 00 00 00 00 00 00 00	
C3	Card Issuer Action Code (Contact) -		
03	Decline [M/Chip Advance]		
C4	Card Issuer Action Code (Contact) -	06 50 00	
04			
C5	Default [M/Chip Advance] Card Issuer Action Code (Contact) -	06 FB 00	
05	Online [M/Chip Advance]		
CG		03	
C6 C7	PIN Try Limit [M/Chip Advance]	42	
0/	CDOL1 Related Data Length	14	
<u> </u>	[Mastercard]		
C8	CRM Country Code [Mastercard]	08 40 - USA	
C9	Accumulator 1 Currency Code	08 40 - USD	
<u> </u>	[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	

Tag CD	Element name	Da	ia –										
CD		00	58	0.0							Ué	iru v	/6.x
	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]												
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]	00				00 40							40 00
D3	Additional Check Table [Mastercard]					FF FF		FF	FF	FF	FF	FF	FF
D5	Application Control [M/Chip Advance]					C6							
D5	Default ARPC Response Code [M/Chip	00											
	Advance]		~~	~~		- (
D7	Application Control [M/Chip Advance]					E6	02						
D9	Application File Locator (Contactless)		01										
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) [M/Chip Advance]	00											
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00											
DF 16	Accumulator 2 Currency Code [Mastercard]	08	40	- U	SD								
	Accumulator 2 Currency Conversion Table [Mastercard]					00 40							40 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00	00	00	00	00	00						
	Accumulator 2 Upper Limit [Mastercard]	00	00	00	00	00	00						
	Counter 1 Control (Contact) [M/Chip Advance]	C1											
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	C1											
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00											
	Counter 2 Control (Contactless) [M/Chip Advance]	00											
DF 1F	Counter 2 Lower Limit [Mastercard]	00											
	Counter 2 Upper Limit [Mastercard]	00											
	MTA CVM (Contact) [M/Chip Advance]	00	00	00	00	00	00						
	MTA CVM (Contactless) [M/Chip Advance]					00							
DF 24	MTA Currency Code [M/Chip Advance]	08	40										
	MTA NoCVM (Contact) [M/Chip			00	00	00	00						
	Advance]												
	MTA NoCVM (Contactless) [M/Chip Advance]			00	00	00	00						
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00	00										
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00	00	00									
DF 29	Accumulator 1 CVR Dependency Data	00	00	00									

Tag	Element name	Data Card v6.x
DF 2A	Accumulator 2 CVR Dependency Data	
	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
0120	(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
DI 30	Advance]	
DF 35	Security Limits Status (Contactless)	00
DI 33	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
01 57	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
01.50	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	01
01 30	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
0 3	Advance]	
DF 40	Read Record Filter (Contactless)	10 01 01 00
	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
	Advance]	20
L	Auvance	

4.5.3 Contact: CVM List - U.S. Maestro, AID A000000042203

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

4.5.4 Contact: Application Tag data, AID A000000042203

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

_		
Tag	Element name	Data Card v6.x
5F 34	Application PAN Sequence Number	11
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 22 03
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 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 CO
		BYTE 1:
		b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
05.00		b7 - International cashback allowed
9F 08	Application Version Number	00 02 B0 50 9C 88 00
9F 0D	Issuer Action Code - Default	00 00 00 00 00
9F 0E 9F 0F	Issuer Action Code - Denial	B0 70 9C 98 00
9F 0F 9F 10	Issuer Action Code - Online	xx 10 xx
95 10	Issuer Application Data [M/Chip	xx
9F 11	Advance] Issuer Code Table Index	01
		55 53 20 4D 61 65 73 74 72 6F 20 20
9F 12	Application Preferred Name	20 20 20 20 - 'US Maestro'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	03
	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 24	Payment Account Reference (PAR)	35 30 30 31 41 42 43 44 45 46 47 48
		49 4A 4B 4C 4D 4E 4F 50 51 52 53 54
L		55 56 57 58 59
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)	00 10
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	0B 0A

Tag Element name Data Card V6. 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 91 36 02 9F 52 06 DF 3E 01 9F 21 03 91 7C 14 9F 6E Third Party Data [Mastercard] 08 40 00 00 30 30 00 9F 7E Application Life Cycle Data [Mastercard] 08 40 00 00 30 30 00 09 77E Application Life Cycle Data [Mastercard] 08 40 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
36 02 9F 52 06 DF 3E 01 9F 21 03 9F 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 9F 7E Application Life Cycle Data [Mastercard] 04 10 00 00 41 00 00 00 00 00 00 00 00 00 00 00 00 00
9F 6E Third Party Data [Mastercard] 08 40 00 00 30 30 00 9F 7E Application Life Cycle Data [Mastercard] 04 10 00 14 00 00 00 00 00 00 00 00 00 00 00 9F 7E Application Life Cycle Data [Mastercard] 04 10 00 00 00 00 00 00 00 00 00 00 00 00
9F 6E Third Party Data [Mastercard] 08 40 00 03 00 9F 7E Application Life Cycle Data [Mastercard] 04 10 08 14 00
21 OF 7E Application Life Cycle Data [Mastercard] 04 10 08 14 00 01 00 00 50 17 79 00 Application Life Cycle Data [Mastercard] 04 10 0 00 00 00 00 00 00 00 00 00 00 00 0
01 10 00 <td< td=""></td<>
00 00<
00 00<
C3 Card Issuer Action Code (Contact) - Decline [M/Chip Advance] 00 00 00 C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 06 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 03 C6 PIN Try Limit [M/Chip Advance] 03 C7 CDOL1 Related Data Length 42 [Mastercard] 08 40 - USA C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code 08 40 - USD [Mastercard] 00 00 00 00 00 00 00 00 CA Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 00 CB CAM country Code (Contactless) - Default [M/Chip Advance] 06 58 00 00 CE Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 58 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
Decline [M/Chip Advance] 06 50 00 C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 06 FB 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 03 C C6 PIN Try Limit [M/Chip Advance] 03 C C7 CDOL1 Related Data Length 42 [Mastercard] 08 40 USA C9 Accumulator 1 Currency Code 08 40 USD [Mastercard] 109 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 0
C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 06 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 03 C6 PIN Try Limit [M/Chip Advance] 03 C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 08 40 - USD CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CE Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 F8 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 08 40 00 00 00 84 00 00 00 08 40 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 08 40 00 00 00 08 40 00 00 00 84 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 00 00 00 88 40 00 00 00 84 00 00 D3 Additional Check Table [Mastercard] 00 00 00 00 86 00 00 00 00 00 00 00 00 00 00 00 00 00
Default [M/Chip Advance] 06 FB 00 C6 PIN Try Limit [M/Chip Advance] 03 03 03 C7 CDOL1 Related Data Length [Mastercard] 42 03 04 04 05 06 FB 00 <td< td=""></td<>
C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 06 FB 00 C6 PIN Try Limit [M/Chip Advance] 03 03 C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code 08 40 - USA C4 Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CA Accumulator 1 Upper Limit [Mastercard] 00 <t< td=""></t<>
Online [M/Chip Advance] 03 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] 00 00 00 00 00 00 CA Accumulator 1 Lupper Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 06 58 00 CE Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 58 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 08 40 00 00 08 40 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 84 00 00 00 08 40 00 00 00 00 D3 Additional Check Table [Mastercard] 00 00 00 00 80 00 26 02 00 00 D4 Application Control [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 D6 Default ARPC Response Code [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 00 D7 Application File Locator
C6 PIN Try Limit [M/Chip Advance] 03 C7 CDQL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 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 CB Accumulator 1 Upper Limit [Mastercard] 06 58 00 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 06 F8 00 CF Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 08 00 00 CF Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 08 00 00 00 00 08 40 00 00 08 40 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 00 00 00 0F FF FF FF FF FF FF FF FF FF
C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CA Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CA Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 06 58 00 Default [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 84 00 00 00 08 40 00 00 D3 Additional Check Table [Mastercard] 00 00 00 FF F
[Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 08 40 - USD CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 00 00 CB Accumulator 1 Code (Contactless) - Default [M/Chip Advance] 06 58 00 06 F8 00 CE Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 08 00 00 00 00 08 40 00 00 00 84 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 08 00 00 00 00 08 40 00 00 00 84 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 00 00 00 08 40 00 00 00 84 00 00 00 00 00 08 40 00 D3 Additional Check Table [Mastercard] 00 00 00 08 00 06 02 00 00 00 D4 Declaut ARPC Response Code [M/Chip Advance] 00 00 00 08 00 06 00 00 00 00 00 00 D7 Application Control [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 DE Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00
C8 CRM Country Code [Mastercard] 08 40 USA C9 Accumulator 1 Currency Code [Mastercard] 00 <t< td=""></t<>
C9 Accumulator 1 Currency Code [Mastercard] 08 40 - USD CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 58 00 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 08 40 00 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 84 00 00 00 84 00 00 D3 Additional Check Table [Mastercard] 00 00 00 00 80 00 00 00 84 00 00 D4 Advance] 00 00 00 00 00 00 00 00 00 00 00 00 00
[Mastercard] 00
CA Accumulator 1 Lower Limit [Mastercard] 00
OR Accumulator 1 Upper Limit [Mastercard] 00
OD Notification Code (Contactless) - Default [M/Chip Advance] O6 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
Default [M/Chip Advance] 06 F8 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 08 40 00 00 08 40 00 00 08 40 00 00 D3 Additional Check Table [Mastercard] 00 00 00 FF F
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 08 40 00 00 08 40 00 00 08 40 00 00 08 40 00 00 D3 Additional Check Table [Mastercard] 00 00 00 00 FF FF FF FF FF FF FF FF FF F
Online [M/Chip Advance] CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 08 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 00 08 40 00 00 08 40 00 00 D3 Additional Check Table [Mastercard] 00 00 00 08 40 00 00 08 40 00 00 D5 Application Control [M/Chip Advance] 80 00 80 00 c6 02 D6 Default ARPC Response Code [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 D7 Application Control [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 D7 Application Control [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 D7 Application Control [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 D8 01 02 00 08 04 04 00 00 D6 Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 00 D7 Application 1 Control (Contactless) 08 01 02 00 08 04 04 00 D8 Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 DF 02 Security Limits Status (Contact) [M/Chip Advance] C1 DF 11 Accumulator 1 Control (Contactless) [M/Chip Advance] C1 DF 14 Accumulator 2 Control (Contactles
CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 08 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 00 08 40 00
Decline [M/Chip Advance] D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 00 00 84 00 00 00 08 40 00 00 08 40 00 00 00 00 00 08 40 00 00 08 40 00 00 00 08 40 00 00 00 D3 Additional Check Table [Mastercard] 00 00 00 0F FF FF FF FF FF FF FF FF FF F
D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00<
Table [Mastercard] 00 00 00 00 08 40 00 00 08 40 00 00 00 D3 Additional Check Table [Mastercard] 00 00 00 FF F
D3Additional Check Table [Mastercard]00D3Additional Check Table [Mastercard]00 00 00 FF F
FFFFFFFFFFFFD5Application Control [M/Chip Advance]80008000C602D6Default ARPC Response Code [M/Chip Advance]001010D7Application Control [M/Chip Advance]00008000E602D9Application File Locator (Contactless)0801020000000000DELog Data Table [M/Chip Advance]00000000000000000000DF 02Security Limits Status (Contact) [M/Chip Advance]00
FFFFFFFFFFFFD5Application Control [M/Chip Advance]80008000C602D6Default ARPC Response Code [M/Chip Advance]001010D7Application Control [M/Chip Advance]00008000E602D9Application File Locator (Contactless)0801020000000000DELog Data Table [M/Chip Advance]00000000000000000000DF 02Security Limits Status (Contact) [M/Chip Advance]00
D6Default ARPC Response Code [M/Chip Advance]0010D7Application Control [M/Chip Advance]00008000E602D9Application File Locator (Contactless)080102000000000000DELog Data Table [M/Chip Advance]00
DotDotatin Air of Response code [informp]Dot DotAdvance]00008000E602D9Application File Locator (Contactless)0801020080040400DELog Data Table [M/Chip Advance]00000000000000000000DF 02Security Limits Status (Contact) [M/Chip Advance]000
D7Application Control [M/Chip Advance]00008000E602D9Application File Locator (Contactless)0801020008040400DELog Data Table [M/Chip Advance]00 <td< td=""></td<>
D9 Application File Locator (Contactless) 08 01 02 00 08 04 04 00 DE Log Data Table [M/Chip Advance] 00 <td< td=""></td<>
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[M/Chip Advance] DF 15 Accumulator 2 Control (Contactless)
DF 15 Accumulator 2 Control (Contactless) 00
[M/Chip Advance]
DF 16 Accumulator 2 Currency Code 08 40 - USD
[Mastercard]
DF 17 Accumulator 2 Currency Conversion 08 40 00 00 08 40 00 00 08 40
Table [Mastercard] 00 00 00 08 40 00 00 08 40 00 00 08 40 00 00
00
DF 18 Accumulator 2 Lower Limit [Mastercard] 00 00 00 00 00 00
DF 19 Accumulator 2 Upper Limit [Mastercard] 00 00 00 00 00
DF 1A Counter 1 Control (Contact) [M/Chip C1 Advance]

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Advance] 00 DF 1D Counter 2 Control (Contact) [M/Chip 00 Advance] 00 DF 1E Counter 2 Control (Contactless) [M/Chip 00 DF 1F Counter 2 Lower Limit [Mastercard] 00 </td <td>Tag</td> <td>Element name</td> <td>Data Card v6.x</td>	Tag	Element name	Data Card v6.x
DF 1D Counter 2 Control (Contact) [M/Chip Advance] 00 DF 1E Counter 2 Control (Contactless) [M/Chip Advance] 00 DF 1F Counter 2 Lower Limit [Mastercard] 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 DF 23 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 DF 24 MTA CVM (Contact) [M/Chip Advance] 08 40 00	DF 1B		C1
Dr 10 Dotation control (Contactless) [M/Chip Advance] 00 DF 1F Counter 2 Lower Limit [Mastercard] 00 DF 21 Counter 2 Upper Limit [Mastercard] 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 DF 23 MTA CVM (Contact) [M/Chip Advance] 08 40 00<			
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DF 23 MTA CVM (Contactless) [M/Chip Advance] 00 </td <td>DF 21</td> <td>Counter 2 Upper Limit [Mastercard]</td> <td></td>	DF 21	Counter 2 Upper Limit [Mastercard]	
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DF 24 MTA Currency Code [M/Chip Advance] 08 40 DF 25 MTA NoCVM (Contact) [M/Chip Advance] 00	DF 23	MTA CVM (Contactless) [M/Chip	00 00 00 00 00 00
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DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 3DCVR Issuer Discretionary Data (Contactless) [M/Chip Advance]01DF 3FRead Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless) [M/Chip Advance]10DF 41DS Management Control [M/Chip20	DF 30		03
[M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 3CCVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 3DCVR Issuer Discretionary Data (Contactless) [M/Chip Advance]01DF 3FRead Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless) [M/Chip Advance]10 01 01 00DF 41DS Management Control [M/Chip20			
DF 37Security Limits Status Common [M/Chip Advance]00DF 3CCVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 3DCVR Issuer Discretionary Data (Contactless) [M/Chip Advance]01DF 3FRead Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless) [M/Chip Advance]10 01 01 00DF 41DS Management Control [M/Chip20	DF 35		00
DF 3C CVR Issuer Discretionary Data (Contact) [M/Chip Advance] 00 DF 3D CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 01 DF 3F Read Record Filter (Contact) [M/Chip Advance] 00 DF 40 Read Record Filter (Contactless) [M/Chip Advance] 10 01 01 00 DF 41 DS Management Control [M/Chip 20	DF c-		
DF 3CCVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 3DCVR Issuer Discretionary Data (Contactless) [M/Chip Advance]01DF 3FRead Record Filter (Contact) [M/Chip Advance]00DF 40Read Record Filter (Contactless) [M/Chip Advance]10 01 01 00DF 41DS Management Control [M/Chip20	DF 37		00
DF 3D CVR Issuer Discretionary Data (Contact) [M/Chip Advance] 01 DF 3D CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 01 DF 3F Read Record Filter (Contact) [M/Chip Advance] 00 DF 40 Read Record Filter (Contactless) [M/Chip Advance] 10 01 01 00 DF 41 DS Management Control [M/Chip 20			
DF 3D CVR Issuer Discretionary Data (Contactless) [M/Chip Advance] 01 DF 3F Read Record Filter (Contact) [M/Chip Advance] 00 DF 40 Read Record Filter (Contactless) [M/Chip Advance] 10 01 01 00 DF 41 DS Management Control [M/Chip 20	DF 3C		00
(Contactless) [M/Chip Advance] DF 3F Read Record Filter (Contact) [M/Chip Advance] DF 40 Read Record Filter (Contactless) [M/Chip Advance] DF 41 DS Management Control [M/Chip			
DF 3F Read Record Filter (Contact) [M/Chip Advance] 00 DF 40 Read Record Filter (Contactless) [M/Chip Advance] 10 01 01 00 DF 41 DS Management Control [M/Chip 20	DF 3D		01
Advance] 10 01 01 00 DF 40 Read Record Filter (Contactless) [M/Chip Advance] DF 41 DS Management Control [M/Chip			
DF 40 Read Record Filter (Contactless) 10 01 01 00 [M/Chip Advance] 20	DF 3F	, , , , , , , , , , , , , , , , , , , ,	00
[M/Chip Advance] 20			
DF 41 DS Management Control [M/Chip 20	DF 40	Read Record Filter (Contactless)	10 01 01 00
		[M/Chip Advance]	
Advance]	DF 41		20
		Advance]	

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

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

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

Tag	Element name	Data Card v6.x
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	4D 41 53 54 45 52 43 41 52 44 20 44
		45 42 49 54 - 'MASTERCARD DEBIT'
56	Track 1 Equivalent Data [Mastercard]	42 35 34 31 33 33 33 30 30 38 39 30
		39 39 31 33 30 5E 20 2F 5E 32 35 31
		32 32 30 31 31 34 38 33 35 39 34 39 30 30 30 30 30 30 30 30 30 30 30 30 30
		30 30 30 30 30
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 51 22 01
		14 83 59 49 00 OF
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 91 30
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 34	Application PAN Sequence Number	11
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 80
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV Contactless supported
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	2 (CDOL2)	00 00 00 00 00 00 00 00 02 05 5E 03
0E	Cardholder Verification Method (CVM)	02 03 1F 03 00 00
94	Application File Locator (AFL)	08 01 03 00
94	Application Flie Locator (AFL)	

Tag	Element name	Data Card v6.x
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid
		b6 - Domestic goods valid b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
0= 00		b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B4 50 84 00 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B4 70 84 80 00
9F 10	Issuer Application Data [M/Chip	xx 10 xx
	Advance]	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 73 74 65 72 63 61 72 64 20 44
		65 62 69 74 - 'Mastercard Debit'
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 24	Payment Account Reference (PAR)	35 30 30 31 41 42 43 44 45 46 47 48
		49 4A 4B 4C 4D 4E 4F 50 51 52 53 54
		55 56 57 58 59
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	00 0B
9F 42	Application Currency Code	08 40 - USD
9F 4A	Static Data Authentication Tag List	82
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
		36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14
9F 62	Track 1 Bitmap for CVC3 (PCVC3 Track	00 00 00 00 00 00
	1) [Mastercard]	
9F 63	Track 1 Bitmap for UN and ATC	00 00 00 00 00 00
	(PUNATC Track 1) [Mastercard]	
9F 64	Track 1 Number of ATC Digits (NATC	00
	Track 1) [Mastercard]	
9F 65	Track 2 Bitmap for CVC3 (PCVC3 Track	00 00
	2) [Mastercard]	
9F 66	Track 2 Bitmap for UN and ATC	00 00
	(PUNATC Track 2) [Mastercard]	
9F 67	Track 2 Number of ATC Digits (NATC	02
	Track 2) [Mastercard]	
9F 6B	Track 2 Equivalent Data [Mastercard]	54 13 33 00 89 09 91 30 D2 51 22 01
		14 83 59 49 00 00 OF
9F 6C	Application Version [Mastercard]	00 01
9F 6E	Third Party Data [Mastercard]	08 40 00 00 30 30 00
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00
		A0 00 00 00 04 10 10 00 00 00 00 00
		00 00 00 00 00 96 00 97 02 00 5A 5A
		00 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) -	00 00 00
	Decline [M/Chip Advance]	

|--|

Tag	Element name	Da	ta								Ca	rd ۱	/6.x
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	- 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						
CD	Card Issuer Action Code (Contactless) -	00	58	00									
	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										00		
	Table [Mastercard]	00	00	00	80	40	00	00	00	80	40	00	00
D3	Additional Chaok Table [Mastercord]	00	00	00	FF	FF	FF	r r	FF	FF	FF	r r	FF
03	Additional Check Table [Mastercard]					FF							
D5	Application Control [M/Chip Advance]	80	00	80	00	C6	02						
D6	Default ARPC Response Code [M/Chip	00	10										
	Advance]												
D7	Application Control [M/Chip Advance]	00	00	80	00	E6	02						
DF 02	Security Limits Status (Contact) [M/Chip	00											
	Advance]												

4.5.7 CTLS: CVM List - U.S. Maestro, AID A000000042203 (PayPass)

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

4.5.8 CTLS: Application Tag data, AID A000000042203 (PayPass)

Tag	Element name	Data	Card v5.x
42	Issuer Identification Number (IIN)	54 13 33	
50	Application Label	55 53 20 4D 41 45 53 54 52 4	4F 20 20
		20 20 20 20 - 'US MAESTRO'	
56	Track 1 Equivalent Data [Mastercard]	42 35 34 31 33 33 33 30 30 3	38 39 30
		39 39 31 33 30 5E 20 2F 5E 3	32 35 31
		32 32 30 31 31 34 38 33 35 3	39 34 39
		30 30 30 30 30 30 30 30 30 30 3	30 30 30
		30 30 30 30 30	
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 !	51 22 01
		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	25 12 31	
5F 25	Application Effective Date	xx xx xx *	

Ray Element name Data Cath VSX 5F 28 Issuer Country Code 08 40 - USA Cath VSX 5F 20 Language Preference 65 62 - 67 - (if (English) 55 57 24 Application PAN Sequence Number 11 1 57 55 Issuer Country Code (alpha2 format) 55 53 - US' 55 82 Application Interchange Profile 18 80 0 BYTE 1: 70 - Offline SDA NOT supported 55 - 60 - Wins may to be performed b5 - Garnholder verification supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported B7 - 22 and the titration NOT supported b7 - Garnholder Verification Supported b7 - 28 and b81 - 20 and b1 - 2	Tee		Dete Oerelu E.v.
SF 2D Language Preference 65 62 - 'en' (English) SF 34 Application PAN Sequence Number 11 SF 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 b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported b3 - Issuer authentication NOT supported b3 - Suser authentication Not supported b4 - Terminal NOT supported b4 - Colocl.1 8D Card Risk Management Data Object List 1 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 2 (CDOL2) 8E Cardholder Verification Method (CVM) List 19 0A 8A 02 95 00 00 00 00 20 02 05 42 03 15 9F 20 9F 07 Application Usage Control FF C0 BYTE 1: b6 - Domestic cash trans. valid b6 - International cashback allowed b7 - Intricash transactions valid b6 - Domestic cashback allowed b7 - Intricash transactions valid b6 - Domestic cashback allowed b7 - Intricash transaction valid b6 - Domestic cashback allowed b7 - Intricash transaction valid b6 - Domestic cashback allowed b7 - Intricash transaction vali	Tag	Element name	Data Card v5.x
SF 34 Application PAN Sequence Number 11 SF 55 Issuer Country Code (alpha2 format) 55 53 - 'US' 82 Application Interchange Profile 57 67 ST 57 Offine DDA NOT supported b5 - Cardholder verification supported b7 - Torminal risk mgm to be performed b3 - Issuer authentication NOT supported b7 - Command b1 - Combined DDA / GEN AC NOT supported b7 - Card Risk Management Data Object List 1 (CDOL1) 84 Dedicated File (DF) Name 87 Application Priority Indicator 20 02 87 Application Priority Indicator 2 (CDOL2) 02 97 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9F 21 03 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 88 Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 5F 3F 37 04 9F 4C 08 2 (CDOL2) 84 Dedication File Locator (AFL) 98 01 02 00 08 04 04 00 9F 07 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - International services valid b3 - International services va			
5F 55 Issuer Country Code (alpha2 format) 55 53 - 'US' 82 Application Interchange Profile 18 40 BYTE 1: b7 - Offline DDA NOT supported b6 - Offline DDA NOT supported b6 - Offline DDA NOT supported b7 - Terminal risk right to be performed b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported b3 - Issuer authentication NOT supported b3 - Issuer Action Priority Indicator 8D Card Risk Management Data Object List 1 (CDOL2) 91 02 06 9F 03 06 9F 1A 02 95 05 5F 37 04 9F 32 01 9F 7C 14 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 5F 3F 37 04 9F 4C 08 00 00 00 00 00 00 00 00 00 00 00 00 00			
82 Application Interchange Profile 18 80 BYTE 1: Dr Offline DDA NOT supported b5 - Cardholder verification supported b5 - Cardholder verification supported b5 - Cardholder verification supported b5 - Sardholder verification Supported b5 - Sardholder Verification Supported b5 - Issuer autorinand 84 Dedicated File (DF) Name A0 00 00 00 04 22 03 PT - Contactless supported B7 - Application Priority Indicator 92 84 Dedicated File (DF) Name A0 00 00 00 04 22 03 PT - Card Risk Management Data Object List 2 (CDOL1) 97 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 PF 7C 14 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 2 (CDOL2) 8D CardRolder Verification Method (CVM) List 10 00 00 00 00 00 00 00 00 00 00 00 00 0			
Application Hiddonargo Fronce BYTE 1: b7 - Offine SDA NOT supported b6 - Offline DDA NOT supported b6 - Cardholder verification supported b3 - Issuer authentication NOT supported b3 - Issuer Authon Priority Indicator 80 Card Risk Management Data Object List 1 (CDOL2) 91 02 06 9F 03 06 9F 1A 02 95 05 5F 37 04 9F 4C 08 2 (CDOL2) 81 Card Risk Management Data Object List 2 (CDOL2) 91 00 80 00 00 00 00 00 00 00 00 00 00 00			
b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b3 - Issuer authentication NOT supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b3 - Issuer Action DOT supported b3 - Issuer Action Code - Denial 84 Dedicated File (DF) Name A0 00 00 00 00 42 20 03 87 Application Priority Indicator 02 86 Card Risk Management Data Object List 1 (CDOL1) 9F 02 06 9F 03 06 9F 14 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 32 03 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 45 02 9F 4C 08 9F 34 03 9F 21 03 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 45 02 9F 4C 08 0F 03 00 00 00 00 00 00 00 00 00 00 00 00	82	Application Interchange Profile	
b6 Offline DDA NOT supported b5 Cardholder verification supported b4 Terminal risk mgmt to be performed b3 Issuer authentication NOT supported via EXTE 2: b6 84 Dedicated File (DF) Name A0 00 00 00 04 22 03 87 Application Priority Indicator 92 86 Card Risk Management Data Object List 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 1 (CDOL1) 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 98 Card Risk Management Data Object List 91 00 80 00 00 00 00 00 00 00 00 00 00 00			
b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Terminal risk mgmt to be performed b3 - Supported via EXTERNAL AUTH command B4 Dedicated File (DF) Name Application Priority Indicator 02 8C Card Risk Management Data Object List 1 (CDOL1) 9F 02 06 9F 03 06 9F 1A 03 9F 21 03 9F 45 02 9F 40 08 9F 34 03 9F 21 03 9F 45 02 9F 40 08 9F 34 03 9F 21 03 9F 45 02 9F 40 08 9F 34 03 9F 21 03 9F 70 14 8D Card Risk Management Data Object List 2 (CDOL2) 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 00 00 00 00 00			
b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DA7 (SEN AC NOT supported BYTE 2: b8 - EMV Contactless supported 84 Dedicated File (DF) Name A0 00 00 00 04 22 03 87 Application Priority Indicator 92 86 Card Risk Management Data Object List 1 (CDOL1) 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9F 4c 08 9F 34 03 9F 21 03 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 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 9F 05 9F 37 04 9F 4C 08 2 (CDOL2) 8E Cardnolder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 00 00 00			
b3-1ssuer authentication NOT supported via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported via B7 Application Priority Indicator 62 Card Risk Management Data Object List 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9c 01 9F 37 04 9F 34 03 9F 21 03 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 45 02 9F 4c 08 9F 34 03 9F 21 03 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 45 02 9F 4c 08 9F 34 03 9F 21 03 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 45 03 00 00 00 00 00 00 00 00 00 00 00 00			
Bedicated File (DF) Name Application Priority Indicator 92 84 Dedicated File (DF) Name A0 00 00 00 04 22 03 87 Application Priority Indicator 92 86 Card Risk Management Data Object List 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 1A 02 9F 37 04 9F 35 01 9F 37 04 9F 35 01 9F 37 04 9F 35 01 9F 77 04 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 8D Card Risk Management Data Object List 91 08 8A 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14 8D Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 9F 07 Application File Locator (AFL) 06 01 02 00 08 04 04 00 9F 7C PF 7 C0 9F 07 Application Usage Control BY F 7 C0 9F 70 Application Usage Control BY F 20 9F 70 Application Version Number 00 02 9F 08 Application Version Number 00 02 9F 01 Issuer Action Code - Default 84 50 84 00 00 9F 02 Issuer Action Code - Denial 00 00 00 00 00 9F 04 Issuer Action Code - Denial 00 00 00 00 9F 05 Issuer Action Code - Denial 00 00 00			
BYTE 2: b8 - EMV Contactless supported 84 Dedicated File (DF) Name A0 00 00 00 42 20 3 87 Application Priority Indicator 92 8C Card Risk Management Data Object List 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 1 (CDOL1) 8D Card Risk Management Data Object List 9F 02 06 9F 03 06 9F 1A 03 9F 21 03 9F 7C 14 8D Card Risk Management Data Object List 91 08 8A 02 9F 37 04 9F 4C 08 2 (CDOL2) 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 9F 07 Application File Locator (AFL) 08 01 02 00 08 04 04 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b6 - Domestic cash valid b6 - Domestic cash valid b6 - Domestic cash valid b7 - Intrinational services valid b6 - Domestic cash valid b7 - Intrinational services valid b7 - International services valid b7 - International services valid b7 - International services valid b7 - International cashback allowed b7 - International services valid b2 - Domestic cash task xx xx xx xx			
bb EMV Contactless supported 84 Dedicated File (DF) Name A0 0 0 0 0 0 0 4 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 9F 1 (CDOL1) 9F 42 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 7 04 9F 35 01 9F 7 04 9F 4C 08 2 (CDOL2) Card Risk Management Data Object List 9F 7 0 14 8D Cardholder Verification Method (CVM) List 10 0 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			b1 - Combined DDA / GEN AC NOT supported
84 Dedicated File (DF) Name A0 00 00 00 02 03 04 22 03 87 Application Priority Indicator 02 92 93 05 9F 13 02 95 05 55 80 Card Risk Management Data Object List 1 (CDOL1) 9F 02 95 05 9F 37 04 9F 21 03 8D Card Risk Management Data Object List 2 (CDOL2) 91 08 03 02 95 05 9F 37 04 9F 42 03 8D Card Risk Management Data Object List 2 (CDOL2) 91 08 01 02 00			
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) 9F 07 04 9F 37 04 9F 4C 08 9F 07 14 8E Cardholder Verification Method (CVM) List 9I 0A 8A 02 95 05 9F 37 04 9F 4C 08 9F 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00 94 Application File Locator (AFL) 08 01 02 00 08 04 04 00 9F 07 9F 07 Application Usage Control PF C0 BYTE 1: b8 - Domestic cash trans. valid b5 - International goods valid b4 - Domestic goods valid b4 - Domestic goods valid b5 - International goods valid b4 - Domestic cashback allowed b7 - International goods valid b4 - Domestic cashback allowed b7 - International cashback			
8C Card Risk Management Data Object List 1 (CDOL1) 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 002 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 9F 07 Application File Locator (AFL) 08 01 02 00 08 04 04 00 9F 07 Application Usage Control PF C 0 BYTE 1: b8 - Domestic cash trans. valid b6 - Domestic goods valid b4 - Domestic cash valid b4 - Domestic cashback allowed b4 - Nomestic explaid b4 - Domestic cashback allowed b7 - International goods valid b4 - Domestic cashback allowed b7 - International as vices valid b8 - International cashback allowed b7 - Internat			
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 02 00 08 04 04 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int" cash transactions valid b6 - Domestic cash valid b3 - International services valid b3 - International geods valid b4 - Domestic cashback allowed 9F 08 Application Version Number 00 00 00 00 9F 01 Issuer Action Code - Default B4 50 84 00 00 00 00 9F 01 Issuer Action Code - Default B4 50 84 00 00 00 00 00 9F 10 Issuer Action Code - Default B4 50 84 00 00 00 00 00 00 9F 11 Issuer Action Code - Default B4 50 84 00 00 <td>87</td> <td>Application Priority Indicator</td> <td></td>	87	Application Priority Indicator	
1 (CDOL1) 2A 02 9A 03 9F 35 01 9F 7C 14 9F 37 04 9F 35 01 8D Card Risk Management Data Object List 91 0A 8A 02 95 95 9F 37 04 9F 4C 08 8E Cardholder Verification Method (CVM) 00 02 05 17 10 17 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10	8C		
9F 45 0.2 9F 4C 0.8 9F 21 0.3 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 0.2 95 0.5 9F 37 0.4 9F 4C 0.8 0.0			
8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 9F 37 04 9F 4C 08 8E Cardholder Verification Method (CVM) List 00			
2 (CDOL2) 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 00 00	0.0		
8E Cardholder Verification Method (CVM) List 00 01 12 11 13 14 10 10 11 13 14 14 14 14 14 14 14 14 14 14 14 10 10 11 </td <td>טא</td> <td></td> <td>אר אד אד</td>	טא		אר אד
List 1F 03 00 00 00 94 Application File Locator (AFL) 08 01 02 00 08 04 04 00 9F 07 Application Usage Control FF C0 BYTE 1: b8<		· · · ·	
Optication File Locator (AFL) 08 01 02 00 08 04 04 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Internatio	8E	. , ,	
9F 07 Application Trice Exector (WE) FF C0 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b4 - Domestic goods valid b4 - Domestic services valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b4 - Domestic services valid b3 - International goods valid b4 - Domestic services valid b3 - International goods valid b4 - Domestic cashback allowed b7 - Int'l cash transactions valid b9 - Domestic cashback allowed b7 - International services valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - Issuer Action Code - Defiall 00 00 00 00 00 9F 0F Issuer Action Code - Online B4 70 84 80 00 00 9F 11 Issuer Application Data [M/Chip xx tx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx 9F 11 Issuer Code Table Index 01 01 9F 12 Application			
BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b6 - Domestic services valid b3 - International goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 0D Issuer Action Code - Default B4 50 84 00 00 9F 0F Issuer Action Code - Online B4 70 84 80 00 9F 10 Issuer Application Data [M/Chip xx			
b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b2 - ATMS valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed <b< td=""><td>9F 07</td><td>Application Usage Control</td><td></td></b<>	9F 07	Application Usage Control	
b7Int'l cash transactions valid b6b6Domestic goods valid b5b7International goods valid b4b3International goods valid b3b3International services valid b3b3International services valid b1b3International services valid b1b3International services valid b2b3International services valid b1b4Domestic cashback allowed b7b7International cashback allowed9F 08Application Version Number00029F 00Issuer Action Code - Default9F 01Issuer Action Code - Default9F 02Issuer Action Code - Online9F 03Issuer Action Code - Online9F 10Issuer Application Data [M/Chip Advance]9F 11Issuer Code Table Index9F 11Issuer Code Table Index9F 11Issuer Code Table Index9F 12Application Preferred Name2553202020202020202020202020209F 14Counter 1 Lower Limit [Mastercard]9F 23Counter 1 Upper Limit [Mastercard]9F 24Payment Account Reference (PAR)355030355656579F 26Application Cryptogram (AC)3737384039F 26Application Cryptogram (AC)3636			
b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed9F 08Application Version Number00 029F 00Issuer Action Code - DefaultB4 50 84 00 009F 0FIssuer Action Code - Denial00 00 00 00 009F 0FIssuer Action Code - OnlineB4 70 84 80 009F 10Issuer Action Code - OnlineB4 70 84 80 009F 11Issuer Action Preferred Name019F 12Application Preferred Name019F 14Counter 1 Lower Limit [Mastercard]009F 17Personal Identification Number (PIN) Try Counter039F 23Counter 1 Upper Limit [Mastercard]009F 24Payment Account Reference (PAR)35 30 30 31 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F 50 51 52 53 54 55 56 57 58 599F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx xx **9F 27Cryptogram Information Data (CID)809F 24Application Transaction Counter (ATC)009F 42Application Currency Code08 40 - USD			
b5 - International goods valid b4 - Domestic services valid b3 - International services valid b3 - International services valid b3 - International services valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Int			
b4 - Domestic services valid b3 - International services valid b2 - ATMs valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed9F 08Application Version Number00 00 029F 00Issuer Action Code - DefaultB4 50 8400 009F 01Issuer Action Code - Denial00 00 0000 009F 05Issuer Action Code - OnlineB4 70 84 8084 80 009F 06Issuer Action Code - OnlineB4 70 84 8080 809F 10Issuer Application Data [M/Chip xx 10 Advance]xx xx9F 11Issuer Code Table Index 20 20 20 20 2020 <br< td=""><td></td><td></td><td></td></br<>			
b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Issuer Action Code - Online b8 4 80 00 00 9 F 11 Issuer Code Table Index 9 F 20 Application Preferred Name 9 F 20 Application Counter (PIN) 9 F 20 Counter 1 Upper Limit [Mastercard] 9 F 20 Application Cryptogram (AC) <br< td=""><td></td><td></td><td></td></br<>			
b1 - non-ATM terminals valid BYTE 2: b8 - Dormestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed9F 08Application Version Number00 029F 0DIssuer Action Code - DefaultB4 50 84 00 009F 0EIssuer Action Code - Denial00 00 00 00 009F 0FIssuer Action Code - OnlineB4 70 84 80 009F 10Issuer Application Data [M/Chip Advance]xx 10 xx			
BYTE 2: b8 - Domestic cashback allowed 9F 08 Application Version Number 00 02 9F 00 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 Action Data [M/Chip xx 10 xx			
b8 - Domestic cashback allowed b7 - International cashback allowed 9F 08 Application Version Number 00 02 9F 00 Issuer Action Code - Default B4 50 84 00 00 9F 01 Issuer Action Code - Denial 00 00 00 00 00 9F 01 Issuer Action Code - Online B4 70 84 80 00 9F 01 Issuer Application Data [M/Chip Advance] xx			
b7 - International cashback allowed 9F 08 Application Version Number 00 02 9F 0D Issuer Action Code - Default B4 50 84 00 00 00 00 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 00 00 9F 0F Issuer Action Code - Denial 00 00 00 00 00 00 00 9F 0F Issuer Action Code - Online B4 70 84 80 00 84 80 00 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx			
9F 08 Application Version Number 00 02 9F 0D Issuer Action Code - Default B4 50 84 00 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online B4 70 84 80 00 9F 10 Issuer Application Data [M/Chip xx 10 xx			
9F 0D Issuer Action Code - Default B4 50 84 00 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online B4 70 84 80 00 9F 10 Issuer Application Data [M/Chip xx 10 xx	05.00		
9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online B4 70 84 80 00 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx			
9F 0F Issuer Action Code - Online B4 70 84 80 00 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx x			
9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx			
Advance] 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 9F 12 Application Preferred Name 55 53 20 4D 61 65 73 74 72 6F 20 20 9F 14 Counter 1 Lower Limit [Mastercard] 00 00	9F 10		
9F 12 Application Preferred Name 55 53 20 4D 61 65 73 74 72 6F 20 20 9F 14 Counter 1 Lower Limit [Mastercard] 00 00			
20 20 20 20 20 - US Maestro' 9F 14 Counter 1 Lower Limit [Mastercard] 00 00 00 9F 17 Personal Identification Number (PIN) Try Counter 03 03 00 9F 23 Counter 1 Upper Limit [Mastercard] 00 00 00 9F 24 Payment Account Reference (PAR) 35 30 31 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F 50 51 52 53 54 9F 26 Application Cryptogram (AC) xx x			
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 24 Payment Account Reference (PAR) 35 30 31 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F 50 51 52 53 54 9F 26 Application Cryptogram (AC) xx xx xx xx xx xx xx xx xx x	9F 12	Application Preferred Name	
9F 17 Personal Identification Number (PIN) Try Counter 03 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 24 Payment Account Reference (PAR) 35 30 31 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F 50 51 52 53 54 9F 26 Application Cryptogram (AC) xx		-	
Try Counter 00 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 24 Payment Account Reference (PAR) 35 30 31 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F 50 51 52 53 54 9F 26 Application Cryptogram (AC) xx xx <td< td=""><td></td><td></td><td></td></td<>			
9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 24 Payment Account Reference (PAR) 35 30 31 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F 50 51 52 53 54 55 56 57 58 59	9F 17		03
9F 24 Payment Account Reference (PAR) 35 30 31 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F 50 51 52 53 54 55 56 57 58 59 54 55 56 57 58 59 55 56 57 58 59 54 55 56 57 58 59 54 55 56 57 58 59 54 55 56 57 58 59 54 55 56 57 58 59 54 55 56 57 58 59 54 55 56 57 58 59 54 55 56 57 58 59 57 58 59 54 55 56 57 58 59 54 55 56 57 58 59 54 55 56 57 58 59 54 55 56 57 5			
9F 26Application Cryptogram (AC)xx			
9F 26Application Cryptogram (AC)xx	9F 24	Payment Account Reference (PAR)	
9F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx xx xx xx9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)00 0D9F 42Application Currency Code08 40 - USD			
9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)00 0D9F 42Application Currency Code08 40 - USD	05.00	Application Operations (AO)	
9F 36Application Transaction Counter (ATC)00 0D9F 42Application Currency Code08 40 - USD			
9F 42 Application Currency Code 08 40 - USD			
9F 4A Static Data Authentication Tag List 82			
	9F 4A	Static Data Authentication Tag List	82

Tag	Element name	Da	ta								Са	rd v	′5.x
9F 4D	Transaction Log Entry		0A										
9F 4F	Transaction Log Format	9F	27	01	9F	02	06	5F	2A	02	9A	03	9F
				9F	52	06	DF	3E	01	9F	21	03	9F
	Track 4 Diterran for 01/02 (D01/02 Track	-	14	00	00	00	00						
9F 62	Track 1 Bitmap for CVC3 (PCVC3 Track 1) [Mastercard]												
9F 63	Track 1 Bitmap for UN and ATC	00	00	00	00	00	00						
	(PUNATC Track 1) [Mastercard]												
9F 64	Track 1 Number of ATC Digits (NATC Track 1) [Mastercard]	00											
9F 65	Track 2 Bitmap for CVC3 (PCVC3 Track 2) [Mastercard]	00	00										
9F 66	Track 2 Bitmap for UN and ATC	00	00										
0. 00	(PUNATC Track 2) [Mastercard]												
9F 67	Track 2 Number of ATC Digits (NATC	02											
	Track 2) [Mastercard]												
9F 6B	Track 2 Equivalent Data [Mastercard]						09		30	D2	51	22	01
0= 00				59	49	00	00	0F					
9F 6C	Application Version [Mastercard]		01			20	20						
9F 6E	Third Party Data [Mastercard]						30 01		00	E0	17	70	00
9F 7E	Application Life Cycle Data [Mastercard]						10						
							96						
		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) - Default [M/Chip Advance]	06	50	00									
C5	Card Issuer Action Code (Contact) -	06	FB	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	- U	SA								
C9	Accumulator 1 Currency Code [Mastercard]	08	40	- U	SD								
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) - Default [M/Chip Advance]	06	58	00									
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	06	F8	00									
CF	Card Issuer Action Code (Contactless) -	08	00	00									
D1	Decline [M/Chip Advance] Accumulator 1 Currency Conversion	08	40	00	00	00	08	40	00	00	00	08	40
	Table [Mastercard]						00						
D3	Additional Check Table [Mastercard]	00				FF FF	FF FF	FF	FF	FF	FF	FF	FF
D5	Application Control [M/Chip Advance]					C6							
D6	Default ARPC Response Code [M/Chip	00	10										
	Advance]												
D7	Application Control [M/Chip Advance]	00	00	80	00	E6	02						
DF 02	Security Limits Status (Contact) [M/Chip	00											
	Advance]						ith a						

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

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

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

4.6.1 Contact: CVM List - Maestro Debit, AID A000000043060D0561111

Cardhol	der Verification Method List ('41	03 0203 0000')	
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM
2	Online PIN	Terminal supports CVM type	Fail
3	Fail CVM Processing	Always	Fail

4.6.2 Contact: Application Tag data, AID A000000043060D0561111

Tag	Element name	Data Card v5.x
50	Application Label	4D 41 45 53 54 52 4F 31 20 20 20 20
50	Application Label	20 20 20 20 - 'MAESTRO1'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 01 0D 25 12 22
	P	01 48 35 94 90 OF
5A	Application Primary Account Number (PAN)	67 99 99 89 00 00 02 01 OF
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 30 36 20 20
		20 20 - 'USA DEBIT/Test Card 06'
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	05 28 - NLD
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	31
82	Application Interchange Profile	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported via
		External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
0.4		b8 - EMV mode NOT supported A0 00 00 00 04 30 60 D0 56 11 11
84	Dedicated File (DF) Name	
87	Application Priority Indicator	
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01
	1 (CDOL1)	9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
	2 (CDOL2)	
	= \-= - /	
BF	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 41 03 02 03
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 41 03 02 03 00 00 00 00

Tag	Element name	Data Card v5.x
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid
		b6 - Domestic goods valid b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0A	Application Selection Registered	00 01 01 01
	Proprietary Data	
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 10	Issuer Application Data [M/Chip	xx 14 xx
	Advance]	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 65 73 74 72 6F 31 20 20 20 20
		20 20 20 - 'Maestro1'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	09
	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	09 78 - EUR
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
		36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00
		A0 00 00 00 04 30 60 17 10 13 00 00
		00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) -	
03	Decline [M/Chip Advance]	
C4	Card Issuer Action Code (Contact) -	7 F 50 00
04	Default [M/Chip Advance]	
C5	Card Issuer Action Code (Contact) -	3F FB 00
05	Online [M/Chip Advance]	
C6		09
C6 C7	PIN Try Limit [M/Chip Advance]	42
07	CDOL1 Related Data Length	14
<u></u>	[Mastercard] CRM Country Code [Mastercard]	05 28 - NLD
C8 C9		09 78 - EUR
69	Accumulator 1 Currency Code	09 /0 - EUN
CA	[Mastercard]	00 00 00 00 00 00
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00
CD	Card Issuer Action Code (Contactless) -	
05	Default [M/Chip Advance]	00 00 00
CE	Card Issuer Action Code (Contactless) -	
	Online [M/Chip Advance]	

Tag	Element name	Da	ta								Ca	rd	/5.x
CF	Element name Card Issuer Action Code (Contactless) -		00	00							00	nu v	/J.X
	Decline [M/Chip Advance]												
D1	Accumulator 1 Currency Conversion								00				
	Table [Mastercard]		00	00	09	78	00	00	00	09	78	00	00
D 0		00	00	00					FF				
D3	Additional Check Table [Mastercard]			50 FF				E.E.	E.E.	E.E.	E.E.	E.E.	E.E.
D5	Application Control [M/Chip Advance]			80									
D5 D6	Default ARPC Response Code [M/Chip		10	•••	••	•••	•-						
DO	Advance]												
D7	Application Control [M/Chip Advance]	00	00	00	00	00	00						
D9	Application File Locator (Contactless)	•••											
DB	Log Data Table [M/Chip Advance]	00	00	00	00	00	00	00	00	00			
		00	00	00	00	00	00	00	00	00			
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00											
DF 11	Accumulator 1 Control (Contact)	C1											
	[M/Chip Advance]	_											
DF 12	Accumulator 1 Control (Contactless)	00											
DF 12	[M/Chip Advance]	00											
DF 14	Accumulator 2 Control (Contact)	00											
<u> </u>	[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								00				
	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									
DF 19 DF 1A	Counter 1 Control (Contact) [M/Chip	C1											
DETA	Advance]	01											
DF 1B	Counter 1 Control (Contactless) [M/Chip	00											
	Advance]												
DF 1D	Counter 2 Control (Contact) [M/Chip	00											
55	Advance]												
DF 1E	Counter 2 Control (Contactless) [M/Chip	00											
D	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]	09	78										
DF 25	MTA NoCVM (Contact) [M/Chip	00	00	00	00	00	00						
	Advance]												
DF 26	MTA NoCVM (Contactless) [M/Chip	00	00	00	00	00	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									
0	(Contactless) [M/Chip Advance]												
		~~	00	00									
DF 2A	Accumulator 2 CVR Dependency Data	00	00	00									
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00	00	00									
DF 2A DF 2B	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance] Accumulator 2 CVR Dependency Data		00										

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

4.6.3 Contact: CVM List - Maestro Debit, AID A000000043060D0562222

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

4.6.4 Contact: Application Tag data, AID A000000043060D0562222

Tag	Element name	Data Card v5.x
50	Application Label	4D 41 45 53 54 52 4F 32 20 20 20 20
		20 20 20 20 - 'MAESTRO2'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 02 8D 25 12 22
		01 48 35 94 90 OF
5A	Application Primary Account Number	67 99 99 89 00 00 02 02 8F
	(PAN)	
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 30 36 20 20
		20 20 - 'USA DEBIT/Test Card 06'
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	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 82 Application Interchange Profile 18 00 82 Application Interchange Profile 18 00 84 Dedicated File (DF) Name 16 - Cardholder verification NOT supported b3 - Issuer authentication NOT supported b2 - On device Cardholder verification NOT supported b3 - Issuer authentication NOT supported BYTE 2: 84 Dedicated File (DF) Name 70 00 00 00 00 43 30 60 70 55 22 22 22 7 Application Priority Indicator 92 80 Card Risk Management Data Object List 2 (CDOL2) 97 02 05 97 03 06 97 14 02 95 05 97 17 04 97 35 01 97 7 02 14 97 52 10 397 72 01 97 7 01 4 97 52 10 397 72 01 97 7 01 97 02 00 00 00 00 00 00 00 00 00 00 00 00	-		
BYTE 1: bYTE 1: Decision Meters arg 9 1 Note BYTE 1: Decision Meters arg 9 1 Note b: Offline DDA NOT supported b: Offline DDA NOT supported b: Carcholder verification NOT supported b: Supported b: Carcholder verification NOT supported b: Supported b: Carcholder verification NOT supported B: Carcholder Verification NOT supported b: Carcholder verification NOT supported B: Carcholder Verification Not Priority Indicator 02 B: Card Risk Management Data Object List 1 (CDOL1) B: Z (CDOL2) 00 00 00 00 00 00 00 00 00 00 00 00 00	Tag	Element name	Data Card v5.x
1 (CDOL1) 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 8D Card Risk Management Data Object List 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 8D Card Risk Management Data Object List 9I 0A 8A 02 95 05 9F 37 04 9F 4C 08 8E Cardholder Verification Method (CVM) 00 00 00 00 00 00 00 01 41 03 02 03 9F 45 00 00 00 00 00 00 00 00 00 00 00 01 41 03 02 03 9F 47 00 00 00 00 00 00 00 00 00 00 00 00 00	82 84 87	Application Interchange Profile Dedicated File (DF) Name Application Priority Indicator	18 00BYTE 1:b7 - Offline SDA NOT supportedb6 - Offline DDA NOT supportedb5 - Cardholder verification supportedb4 - Terminal risk mgmt to be performedb3 - Issuer authentication NOT supported viaExternal Auth commandb2 - On device Cardholder verification NOTsupportedb1 - Combined DDA / GEN AC NOT supportedBYTE 2:b8 - EMV mode NOT supportedA0 00 00 00 04 30 60 D0 56 22 22
2 (CDOL2) 8E Cardholder Verification Method (CVM) 00		1 (CDOL1)	
01 01 00 00 00 00 00 94 Application File Locator (AFL) 08 01 01 00 94 Application File Locator (AFL) 08 01 01 00 95 07 Application Usage Control FF co BYTE 1: b8 -Domestic cash trans. valid b7 -Int' cash transactions valid b6 - Domestic goods valid b5 - International goods valid b6 - Domestic services valid b3 - International services valid b1 - Domestic cashback allowed b7 - International cashback allowed b7<- International cashback allowed	80	2 (CDOL2)	
94 Application File Locator (AFL) 08 01 01 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b5 - International goods valid b3 - International goods valid b3 - International services valid b4 - Domestic services valid b5 - International services valid b5 - Internation Internation Internation Internation b5 - Int	8E	. ,	
9F 07 Application Usage Control FF C0 9F 07 Application Usage Control FF C0 BVTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic services valid b5 - International goods valid b4 - Domestic services valid b7 - Int'l cash transactions valid b4 - Domestic services valid b3 - International services valid b7 - NTM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed 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 11 Issuer Application Data [M/Chip xx 14 xx xx xx xx xx xx xx xx xx Advance] 01 1 9F 12 Application Preferred Name 4D 61 65	94	Application File Locator (AFL)	
BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b7 - Int'l cash transactions valid b6 - Domestic services valid b3 - International goods valid b2 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed 9F 0A Application Version Number 00 02 9F 0A Application Selection Registered 00 01 01 01 9F 0D Issuer Action Code - Default B0 50 BC 88 00 9F 0E Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip xx 14 xx xx xx xx xx * Advance] xx xx xx xx xx * 9F 11 Issuer Code Table Index 01 9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 32 20 20 20 20 20 20 20 20 20 20 20 20 20	-		
9F 0A Application Volume for the model 9F 0A Application Selection Registered Proprietary Data 00 9F 0D Issuer Action Code - Default 9F 0F Issuer Action Code - Denial 09F 0F Issuer Action Code - Online 9F 0F Issuer Action Code - Online 9F 0F Issuer Action Code - Online 9F 10 Issuer Application Data [M/Chip Advance] XX 9F 11 Issuer Code Table Index 9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 32 20			 b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
Proprietary Data 9F 0D Issuer Action Code - Default B0 50 BC 88 00 9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip xx 14 xx			
9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 14 xx		Proprietary Data	
9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 14 xx x			
9F 10 Issuer Application Data [M/Chip Advance] xx 14 xx			
Advance] xx xx xx xx xx xx xx xx xx 9F 11 Issuer Code Table Index 01 9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 32 20 20 20 20 20 20 20 20 20 20 20 20 20			
9F 11 Issuer Code Table Index 01 9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 32 20 2	91 10		
9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 32 20	9F 11		01
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			4D 61 65 73 74 72 6F 32 20 20 20 20
9F 17Personal Identification Number (PIN) Try Counter039F 23Counter 1 Upper Limit [Mastercard]009F 26Application Cryptogram (AC)xx xx xx9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xx xx xx xx xx9F 42Application Currency Code09 78 - EUR9F 4DTransaction Log Entry0B 0A9F 4FTransaction Log Format9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F	9F 14	Counter 1 Lower Limit [Mastercard]	
9F 23Counter 1 Upper Limit [Mastercard]009F 26Application Cryptogram (AC)xx xx xx xx xx xx xx xx xx xx xx9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xx xx x9F 42Application Currency Code09 78 - EUR9F 4DTransaction Log Entry0B 0A9F 4FTransaction Log Format9F 27 01 9F 02 06 5F 2A 02 9A 03 9F36 02 9F 52 06 DF 3E 01 9F 21 03 9F		Personal Identification Number (PIN)	03
9F 27Cryptogram Information Data (CID)809F 36Application Transaction Counter (ATC)xx xx *9F 42Application Currency Code09 78 - EUR9F 4DTransaction Log Entry0B 0A9F 4FTransaction Log Format9F 27 01 9F 02 06 5F 2A 02 9A 03 9F36 02 9F 52 06 DF 3E 01 9F 21 03 9F	9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 36 Application Transaction Counter (ATC) xx xx * 9F 42 Application Currency Code 09 78 - EUR 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F	9F 26		xx xx xx xx xx xx xx *
9F 42 Application Currency Code 09 78 EUR 9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F			80
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			
			9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F

Tag	Element name	Da	ta								Са	rd ۱	/5.x
9F 7E	Application Life Cycle Data [Mastercard]						01					-	00
							30						
							80 00						
C3	Card Issuer Action Code (Contact) -		00			00	00	00	00	00	00	00	00
03	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]		28										
C9	Accumulator 1 Currency Code	09	78	- E	UR								
	[Mastercard]												
CA	Accumulator 1 Lower Limit [Mastercard]					00							
CB	Accumulator 1 Upper Limit [Mastercard]					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]	0.0	70	~~	~~~	~~~	~~	70	~~	~~	~~	~~	70
D1	Accumulator 1 Currency Conversion						09 00						
	Table [Mastercard]	00	00	00	05	/0	00	00	00	05	/0	00	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]	00	00	00	00	00	00						
D9	Application File Locator (Contactless)	00					00	00	00	00			
DE	Log Data Table [M/Chip Advance]	00	00	00	00	00	00	00	00	00			
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00											
DF 11	Accumulator 1 Control (Contact)	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						
	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 18	Accumulator 2 Upper Limit [Mastercard]					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]												
1													

Tag	Element name	Data Card v5.x
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	Advance]	
DF 24		09 78 - EUR
DF 24	MTA Currency Code [M/Chip Advance]	00 00 00 00 00 00
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	
DF 26	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 27	Number Of Days Offline Limit [M/Chip	00 00
	Advance]	
DF 28	Accumulator 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 29	Accumulator 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2A	Accumulator 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2F	Counter 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 30	Interface Enabling Switch [M/Chip	01
	Advance]	
DF 35	Security Limits Status (Contactless)	00
	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	00
	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
	Advance]	
DF 40	Read Record Filter (Contactless)	00
	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
	Advance]	

4.7 Test Card 07 - Mastercard Int'I, CO, 2-AID (Credit+Debit), English, GBR, GBP

A contact-only, 2-AID International Mastercard combination credit & debit card with an Issuer Country Code of 'GBR' and Currency Code of 'GBP'.

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

4.7.1 Contact: CVM List - Mastercard credit, AID A000000041010

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

4.7.2 Contact: Application Tag data, AID A0000000041010

Tag	Element name	Data Card v5.x
50	Application Label	4D 41 53 54 45 52 43 41 52 44 20 20
		20 20 20 20 - 'MASTERCARD'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 51 22 01
		14 83 59 49 00 OF
5A	Application Primary Account Number (PAN)	54 13 33 00 89 02 00 60
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 30 37 20 20
55.04		20 20 - 'USA DEBIT/Test Card 07' 25 12 31
5F 24	Application Expiration Date	
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
82	Application Interchange Profile	 18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08

-		
Tag	Element name	Data Card v5.x
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 00 41 03 42 03 5E 03 5F 03 00 00
	List	
94	Application File Locator (AFL)	08 01 01 00
94	Application File Locator (AFL)	08 01 01 00
9F 07	Application Usage Control	FF 00
		BYTE 1:
		b8 - Domestic cash trans. valid
		b7 - Int'l cash transactions valid b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback NOT allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 02
9F 0A	Application Selection Registered	00 01 01 02
	Proprietary Data	
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 10	Issuer Application Data [M/Chip	xx 10 xx
	Advance]	xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 73 74 65 72 63 61 72 64 20 20
		20 20 20 20 - 'Mastercard'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	09
	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 26 - GBP
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
		A0 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A
		00 00 00 00 00 00 00 00 00 00 00 00 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]	09
C7	CDOL1 Related Data Length	42
01		
<u></u>	[Mastercard]	08 26 - GBR
C8 C9	CRM Country Code [Mastercard]	08 26 - GBR 08 26 - GBP
C9	Accumulator 1 Currency Code	
<u> </u>	[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]	

Tag CD CE	Element name Card Issuer Action Code (Contactless) -	Da 00									Ca	ard v	'5 <u>.X</u>
		0.0	~~	<u>^</u>									
CE	Default [M/Chip Advance]												
1	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	00	00	00									
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00	00	00									
D1	Accumulator 1 Currency Conversion	08	26	00	00	00	08	26	00	00	00	08	26
	Table [Mastercard]	00 00	00	00	80	26	00	00	00	08	26	00	00
D3	Additional Check Table [Mastercard]	FF	FF	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 Advance]	00	10										
D7	Application Control [M/Chip Advance]	00	00	00	00	00	00						
D9	Application File Locator (Contactless)												
DE	Log Data Table [M/Chip Advance]	00	00	00	00	00	00	00	00	00			
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00											
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1											
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	00											
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00											
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00											
DF 16	Accumulator 2 Currency Code [Mastercard]	09	99										
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]					00 99						09 00	99 00
DF 18	Accumulator 2 Lower Limit [Mastercard]	00	00	00	00	00	00						
DF 19	Accumulator 2 Upper Limit [Mastercard]	00	00	00	00	00	00						
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1											
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	00											
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00											
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00											
DF 1F	Counter 2 Lower Limit [Mastercard]	00											
DF 21	Counter 2 Upper Limit [Mastercard]	00											
DF 22	MTA CVM (Contact) [M/Chip Advance]	00	00	00	00	00	00						
DF 23	MTA CVM (Contactless) [M/Chip Advance]					00							
DF 24	MTA Currency Code [M/Chip Advance]	08	26										
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00	00	00	00	00	00						
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00	00	00	00	00	00						
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00	00										
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00	00	00									
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00	00	00									

Tag	Element name	Data Card v5.x
DF 2A	Accumulator 2 CVR Dependency Data	
DF ZA	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
DF 2D		
DF 2C	(Contactless) [M/Chip Advance]	00 00 00
DF 20	Counter 1 CVR Dependency Data	
	(Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data	
	(Contactless) [M/Chip Advance]	00 00 00
DF 2E	Counter 2 CVR Dependency Data	
	(Contact) [M/Chip Advance]	
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]	

4.7.3 Contact: CVM List - Maestro debit, AID A000000043060

Cardholder Verification Method List ('4103 4203 0000')							
CVM	Verification Method	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 A000000043060

Tag	Element name	Data Card v5.x
50	Application Label	4D 41 45 53 54 52 4F 20 20 20 20 20
		20 20 20 20 - 'MAESTRO'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 00 05 1D 25 12
		22 01 48 35 94 90 OF
5A	Application Primary Account Number	67 99 99 89 00 00 02 00 05 1F
	(PAN)	
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 30 37 20 20
		20 20 - 'USA DEBIT/Test Card 07'
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	XX XX XX *
5F 28	Issuer Country Code	08 26 - GBR
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	12

Tag		Data
Tag	Element name	Data Card v5.x 18 00
82	Application Interchange Profile	BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported via
		External Auth command b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 30 60
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 41 03 42 03
	List	00 00 00 00
94	Application File Locator (AFL)	08 01 02 00
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0A	Application Selection Registered	00 01 01 01
	Proprietary Data	
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 10	Issuer Application Data [M/Chip	xx 14 xx
	Advance]	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	
9F 12	Application Preferred Name	4D 61 65 73 74 72 6F 20 20 20 20 20 20 20 20 20 20 20 - 'Maestro'
9F 14	Counter 1 Lower Limit [Mastaroard]	00
9F 14 9F 17	Counter 1 Lower Limit [Mastercard] Personal Identification Number (PIN)	09
91 1 <i>1</i>	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 26 - GBP
9F 42 9F 4D	Application Currency Code	08 26 - GBP 0b 0a
9F 4D	Transaction Log Entry	
		0B 0A

Tag	Element name	Da	ta								Са	rd ۱	/5.x
9F 7E	Application Life Cycle Data [Mastercard]					00							
						04							
						00 00							
C3	Card laguer Action Cade (Cantact)		00		00	00	00	00	00	00	00	00	00
03	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00	00	00									
C4	Card Issuer Action Code (Contact) -	7F	50	00									
04	Default [M/Chip Advance]												
C5	Card Issuer Action Code (Contact) -	ЗF	FB	00									
00	Online [M/Chip Advance]	_											
C6	PIN Try Limit [M/Chip Advance]	09											
C7	CDOL1 Related Data Length	42											
•	[Mastercard]												
C8	CRM Country Code [Mastercard]	08	26	- G	BR								
C9	Accumulator 1 Currency Code	08	26	- G	ΒP								
	[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]												
D1	Accumulator 1 Currency Conversion					00							
	Table [Mastercard]	00	00	00	08	26	00	00	00	08	26	00	00
D3	Additional Check Table [Mastercard]		00	00	FF	FF	FF	FF	FF	FF	FF	FF	FF
00						FF							
D5	Application Control [M/Chip Advance]	86	00	80	00	C6	02						
D6	Default ARPC Response Code [M/Chip	00	10										
	Advance]												
D7	Application Control [M/Chip Advance]	00	00	00	00	00	00						
D9	Application File Locator (Contactless)												
DE	Log Data Table [M/Chip Advance]		00	00	00	00	00	00	00	00			
DF 02	Security Limits Status (Contact) [M/Chip	00											
	Advance]	~ 1											
DF 11	Accumulator 1 Control (Contact)	C1											
DE 40	[M/Chip Advance]	00											
DF 12	Accumulator 1 Control (Contactless)	00											
DF 14	[M/Chip Advance] Accumulator 2 Control (Contact)	00											
DF 14		00											
DF 15	[M/Chip Advance] 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]	00											
DF 1B	Counter 1 Control (Contactless) [M/Chip	00											
	Advance]	00											
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]												
	הטימוונכן												

B2 》

Tag	Element name	Data Card v5.x
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip	00 00 00 00 00 00
DF 23	Advance]	
DF 24	MTA Currency Code [M/Chip Advance]	08 26 - GBP
DF 24		00 00 00 00 00 00
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	
DF 26	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 27	Number Of Days Offline Limit [M/Chip	00 00
	Advance]	
DF 28	Accumulator 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 29	Accumulator 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2A	Accumulator 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2F	Counter 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 30	Interface Enabling Switch [M/Chip	01
	Advance]	
DF 35	Security Limits Status (Contactless)	00
	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	00
	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
	Advance]	
DF 40	Read Record Filter (Contactless)	00
	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
	Advance]	

4.8 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 A000000042203D0561111

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 A000000042203D0561111

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 43 48 45 43 4B 49 4E 47 20
		20 20 20 20 - 'US CHECKING'
57	Track 2 Equivalent Data	54 13 33 00 89 09 90 07 D2 51 22 20
		14 83 59 49 00 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 65
		73 74 20 43 61 72 64 20 30 38 20 20
55.04		20 20 - 'USA DEBIT/Test Card 08' 25 12 31
5F 24	Application Expiration Date	
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	31
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 22 03 D0 56 11 11
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01 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
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00
94	Application File Locator (AFL)	08 01 01 00

Tag	Element name	Data Card v5.x
9F 07	Application Usage Control	FF C0
		BYTE 1:
		b8 - Domestic cash trans. valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00
9F 10	Issuer Application Data [M/Chip	xx 10 xx
	Advancel	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 43 68 65 63 6B 69 6E 67 20
31 12	Application Freieneu Name	20 20 20 20 - 'US Checking'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	03
91 17	Try Counter	
0 - 22		00
9F 23	Counter 1 Upper Limit [Mastercard]	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx * 80
9F 27	Cryptogram Information Data (CID)	
9F 36	Application Transaction Counter (ATC)	
9F 42	Application Currency Code	08 40 - USD 0B 0A
9F 4D	Transaction Log Entry	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
9F 4F	Transaction Log Format	36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00
		A0 00 00 00 04 22 03 00 00 00 00 00
		00 00 00 00 00 80 00 88 01 06 A5 5A
		00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) -	00 00 00
	Decline [M/Chip Advance]	
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]	
		1

Tag	Element name	Da				-		_		-		Ird V	
D1	Accumulator 1 Currency Conversion									00			
	Table [Mastercard]		00	00	08	40	00	00	00	08	40	00	00
D 2	Additional Charle Table [Mastersard]	00	00	00	FF	r r	r r	FF	FF	FF	r r	r r	r r
D3	Additional Check Table [Mastercard]					FF		<u> </u>	<u> </u>	<u> </u>	<u> </u>	F F	<u> </u>
D5	Application Control [M/Chip Advance]					C6							
D6	Default ARPC Response Code [M/Chip		10										
00	Advance]												
D7	Application Control [M/Chip Advance]	00	00	00	00	00	00						
D9	Application File Locator (Contactless)												
D9 DE	Log Data Table [M/Chip Advance]	00	00	00	00	00	00	00	00	00			
DE 02	Security Limits Status (Contact) [M/Chip	00	00	00	00	00	00	00	00	00			
DF 02	Advance]	00											
DF 11	Accumulator 1 Control (Contact)	C1											
DETT		01											
	[M/Chip Advance]	00											
DF 12	Accumulator 1 Control (Contactless)	00											
	[M/Chip Advance]	00											
DF 14	Accumulator 2 Control (Contact)												
	[M/Chip Advance]	00											
DF 15	Accumulator 2 Control (Contactless)	00											
	[M/Chip Advance]	00	99										
DF 16	Accumulator 2 Currency Code	09	33										
	[Mastercard]	00	00	00	00	00	00	00	00	00	00	00	00
DF 17	Accumulator 2 Currency Conversion									00			
	Table [Mastercard]	00	00	00	05		00	00	00	0.5	55	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											
D 1 1/1	Advance]												
DF 1B	Counter 1 Control (Contactless) [M/Chip	00											
51 15	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						
2. 20	Advance]												
DF 24	MTA Currency Code [M/Chip Advance]	08	40										
DF 25	MTA NoCVM (Contact) [M/Chip	00	00	00	00	00	00						
0	Advance]												
DF 26	MTA NoCVM (Contactless) [M/Chip	00	00	00	00	00	00						
2. 20	Advance]	_											
DF 27	Number Of Days Offline Limit [M/Chip	00	00										
2. 21	Advance]	_											
DF 28	Accumulator 1 CVR Dependency Data	00	00	00									
2. 20	(Contact) [M/Chip Advance]	_	-	-									
DF 29	Accumulator 1 CVR Dependency Data	00	00	00									
5.20	(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									
20	(Contact) [M/Chip Advance]												
		I											

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

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

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

4.8.4 Contact: Application Tag data, AID A000000042203D0562222

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 53 41 56 49 4E 47 53 20 20 20 20 20 20 - 'US SAVINGS'
57	Track 2 Equivalent Data	54 13 33 00 89 09 90 15 D2 51 22 20 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 90 15
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 30 38 20 20 20 20 - 'USA DEBIT/Test Card 08'
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	32
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'

82 Application Interchange Profile 18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT sup BYTE 2: b8 - EMV mode NOT supported 84 Dedicated File (DF) Name A0 00 00 00 42 2 03 D0 56 22 87 Application Priority Indicator 02 86 Card Risk Management Data Object List 2 (CDOL1) 9F 02 06 9F 03 06 9F 1A 02 95 2A 02 9A 03 9C 01 9F 37 04 9F 9F 45 02 9F 4C 08 9F 34 03 9F 9F 7C 14 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 9F 7C 14 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 9F 7C 14 8D Cardolder Verification Method (CVM) List 08 01 01 00 94 Application File Locator (AFL) 08 01 01 00 94 Application File Locator (AFL) 08 01 01 00 95 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b6 - Domestic goods valid	d via OT pported 22 05 5F 35 01 21 03 4C 08
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 b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT sup BYTE 2: b8 - EMV mode NOT supported84Dedicated File (DF) Name 82A0 00 00 00 04 22 03 D0 56 22 95 00 00 04 22 03 D0 56 2287Application Priority Indicator 1 (CDOL1)0280Card Risk Management Data Object List 2 (CDOL2)9F 02 06 9F 03 06 9F 1A 02 95 2A 02 9F 4C 08 9F 34 03 9F 9F 45 02 9F 4C 08 9F 34 03 9F 9F 7C 1480Card Risk Management Data Object List 2 (CDOL2)91 0A 8A 02 95 05 9F 37 04 9F 9F 7C 1481Card Risk Management Data Object List 2 (CDOL2)91 00 00 00 00 00 00 00 00 00 00 00 00 00	d via OT pported 22 05 5F 35 01 21 03 4C 08
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 External Auth command b2 - On device Cardholder verification NI supported b1 - Combined DDA / GEN AC NOT sup BYTE 2: b8 - EMV mode NOT supported84Dedicated File (DF) NameA0 00 00 00 4 22 03 D0 56 2287Application Priority Indicator028CCard Risk Management Data Object List 1 (CDOL1)9F 02 06 9F 03 06 9F 1A 02 95 2A 02 9A 03 9C 01 9F 37 04 9F 9F 45 02 9F 4C 08 9F 34 03 9F 9F 7C 148DCard Risk Management Data Object List 2 (CDOL2)91 0A 8A 02 95 05 9F 37 04 9F 9F 7C 148ECardholder Verification Method (CVM) List00 00 00 00 00 00 00 00 00 00 02 05 1F 03 00 0094Application File Locator (AFL)08 01 01 0094Application File Locator (AFL)08 01 01 009F 07Application File Locator (AFL)08 01 01 009F 07Application Sile Locator (AFL)08 01 01 009F 07Application Jage ControlFF C0 BYTE 1: b8 - Domestic cash trans. valid b6 - International goods valid b5 - International goods valid	d via OT pported 22 05 5F 35 01 21 03 4C 08
b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported External Auth command b2 - On device Cardholder verification NU supported b1 - Combined DDA / GEN AC NOT sup BYTE 2: b8 - EMV mode NOT supported84Dedicated File (DF) NameA0 00 00 00 00 4 22 03 D0 56 2287Application Priority Indicator028CCard Risk Management Data Object List 1 (CDOL1)9F 02 06 9F 03 06 9F 1A 02 95 2A 02 9A 03 9C 01 9F 37 04 9F 9F 45 02 9F 4C 08 9F 34 03 9F 9F 7C 148DCard Risk Management Data Object List 2 (CDOL2)91 0A 8A 02 95 05 9F 37 04 9F 9F 7C 148ECardholder Verification Method (CVM) List00 00 00 00 00 00 00 00 00 02 05 1F 03 00 0094Application File Locator (AFL)08 01 01 0094Application File Locator (AFL)08 01 01 009F 07Application File Locator (AFL)08 01 01 009F 07Application Usage ControlFF C0 BYTE 1: b8 - Domestic cash trans. valid b6 - Domestic gods valid b5 - International gods valid	d via OT pported 22 05 5F 35 01 21 03 4C 08
b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported External Auth command b2 - On device Cardholder verification Not supported b1 - Combined DDA / GEN AC NOT sup BYTE 2: b8 - EMV mode NOT supported84Dedicated File (DF) NameA0 00 00 00 4 22 03 D0 56 22 00 00 00 00 4 22 03 D0 56 2287Application Priority Indicator028CCard Risk Management Data Object List 1 (CDOL1)9F 02 06 9F 03 06 9F 1A 02 95 2A 02 9A 03 9C 01 9F 37 04 9F 9F 45 02 9F 4C 08 9F 34 03 9F 9F 7C 148DCard Risk Management Data Object List 2 (CDOL2)91 0A 8A 02 95 05 9F 37 04 9F 9F 37 04 9F8ECardRisk Management Data Object List 2 (CDOL2)91 0A 8A 02 95 05 9F 37 04 9F 9F 7C 148ECardRisk Management Otta Object List 2 (CDOL2)00 00 00 00 00 00 00 00 00 00 00 02 05 1F 03 00 0094Application File Locator (AFL)08 01 01 0094Application File Locator (AFL)08 01 01 0095 07Application Usage ControlFF C0 BYTE 1: b8 - Domestic cash trans. valid 	d via OT pported 22 05 5F 35 01 21 03 4C 08
b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported External Auth command b2 - On device Cardholder verification Not supported b1 - Combined DDA / GEN AC NOT sup BYTE 2: b8 - EMV mode NOT supported84Dedicated File (DF) NameA0 00 00 00 4 22 03 D0 56 2287Application Priority Indicator028CCard Risk Management Data Object List 2 (CDOL1)9F 02 06 9F 03 06 9F 1A 02 95 2A 02 9A 03 9C 01 9F 37 04 9F 9F 45 02 9F 4C 08 9F 34 03 9F 9F 7C 148DCard Risk Management Data Object List 2 (CDOL2)91 0A 8A 02 95 05 9F 37 04 9F 9F 7C 148ECardholder Verification Method (CVM) List00 00 00 00 00 00 00 00 00 02 05 1F 03 00 0094Application File Locator (AFL)08 01 01 0094Application Usage ControlFF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid	d via OT pported 22 05 5F 35 01 21 03 4C 08
External Auth command b2 - On device Cardholder verification Nd supported b1 - Combined DDA / GEN AC NOT sup BYTE 2: b8 - EMV mode NOT supported84Dedicated File (DF) NameA0 00 00 00 04 22 03 D0 56 2287Application Priority Indicator028CCard Risk Management Data Object List 1 (CDOL1)9F 02 06 9F 03 06 9F 1A 02 95 2A 02 9A 03 9C 01 9F 37 04 9F 9F 7C 148DCard Risk Management Data Object List 2 (CDOL2)9F 02 06 9F 03 06 9F 1A 02 95 2A 02 9A 03 9C 01 9F 37 04 9F 9F 7C 148ECard Risk Management Data Object List 2 (CDOL2)91 0A 8A 02 95 05 9F 37 04 9F 9F 37 04 9F8ECardholder Verification Method (CVM) List00 00 00 00 00 00 00 00 00 00 00 02 05 1F 03 00 0094Application File Locator (AFL)08 01 01 0094Application File Locator (AFL)08 01 01 009F 07Application Usage ControlFF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid	OT pported 22 05 5F 35 01 21 03 4C 08
b2 - On device Cardholder verification Net supportedb1 - Combined DDA / GEN AC NOT sup BYTE 2: b8 - EMV mode NOT supported84Dedicated File (DF) NameApplication Priority Indicator028CCard Risk Management Data Object List 1 (CDOL1)9F 02 06 9F 03 06 9F 1A 02 95 2A 02 9A 03 9C 01 9F 37 04 9F 9F 45 02 9F 4C 08 9F 34 03 9F 9F 7C 148DCard Risk Management Data Object List 2 (CDOL2)8ECardholder Verification Method (CVM) List94Application File Locator (AFL)94Application File Locator (AFL)9508 01 01 0097Application Usage Control97FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid	22 05 5F 35 01 21 03 4C 08
supported b1 - Combined DDA / GEN AC NOT sup BYTE 2: b8 - EMV mode NOT supported84Dedicated File (DF) NameA0 00 00 00 04 22 03 D0 56 2287Application Priority Indicator028CCard Risk Management Data Object List 1 (CDOL1)9F 02 06 9F 03 06 9F 1A 02 95 2A 02 9A 03 9C 01 9F 37 04 9F 9F 45 02 9F 4C 08 9F 34 03 9F 9F 7C 148DCard Risk Management Data Object List 2 (CDOL2)9F 00 00 00 00 00 00 00 00 00 00 00 00 00	22 05 5F 35 01 21 03 4C 08
b1 - Combined DDA / GEN AC NOT sup BYTE 2: b8 - EMV mode NOT supported 84 Dedicated File (DF) Name A0 00 00 00 04 22 03 D0 56 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 2A 02 9A 03 9C 01 9F 37 04 9F 9F 45 02 9F 4C 08 9F 34 03 9F 9F 7C 14 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 02 05 94 Application File Locator (AFL) 08 01 01 00 94 Application Usage Control FF 0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid	22 05 5F 35 01 21 03 4C 08
BYTE 2: b8 - EMV mode NOT supported 84 Dedicated File (DF) Name A0 00 00 04 22 03 D0 56 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 8D Card Risk Management Data Object List 2 (CDOL2) 9F 45 02 9F 37 04 9F 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 8E Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	22 05 5F 35 01 21 03 4C 08
b8 - EMV mode NOT supported 84 Dedicated File (DF) Name A0 00 00 00 04 22 03 D0 56 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 2A 02 9A 03 9C 01 9F 37 04 9F 9F 45 02 9F 4C 08 9F 34 03 9F 8D Card Risk Management Data Object List 2 (CDOL2) 9I 0A 8A 02 95 05 9F 37 04 9F 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 02 05 94 Application File Locator (AFL) 08 01 01 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid	05 5F 35 01 21 03 4C 08
84 Dedicated File (DF) Name A0 00 00 04 22 03 D0 56 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 8D Card Risk Management Data Object List 2 (CDOL2) 9F 45 02 9F 4C 08 9F 34 03 9F 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 8E Cardholder Verification Method (CVM) List 91 0A 8A 02 95 05 9F 37 04 9F 94 Application File Locator (AFL) 08 01 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 02 05 <	05 5F 35 01 21 03 4C 08
87 Application Priority Indicator 02 8C Card Risk Management Data Object List 1 (CDOL1) 9F 02 06 9F 03 06 9F 1A 02 95 2A 02 9A 03 9C 01 9F 37 04 9F 9F 45 02 9F 4C 08 9F 34 03 9F 8D Card Risk Management Data Object List 2 (CDOL2) 9I 0A 8A 02 95 05 9F 37 04 9F 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 00 00	05 5F 35 01 21 03 4C 08
BC Card Risk Management Data Object List 1 (CDOL1) 9F 02 06 9F 03 06 9F 1A 02 95 2A 02 9A 03 9C 01 9F 37 04 9F 9F 45 02 9F 4C 08 9F 34 03 9F 9F 7C 14 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 8E Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 8E Cardholder Verification Method (CVM) List 00	35 01 21 03 4C 08
1 (CDOL1)2A 02 9A 03 9C 01 9F 37 04 9F 9F 45 02 9F 4C 08 9F 34 03 9F 9F 7C 148DCard Risk Management Data Object List 2 (CDOL2)91 0A 8A 02 95 05 9F 37 04 9F 9F 7C 148ECardholder Verification Method (CVM) List00 00 00 00 00 00 00 00 00 02 05 1F 03 00 0094Application File Locator (AFL)08 01 01 0094Application File Locator (AFL)08 01 01 009F 07Application Usage ControlFF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid	35 01 21 03 4C 08
9F 45 02 9F 4C 08 9F 34 03 9F 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 02 05 94 Application File Locator (AFL) 08 01 01 00 00 00 00 00 00 00 02 05 9F 07 Application File Locator (AFL) 08 01 01 00 00 00 00 00 00 00 00 00 00 00 00 02 05 05 9F 07 02 05 04 04 04 04 04 04 04 04 04 04 04 04 04 04 04 04 05 04 04 04 04 05 04 04 04 <td< td=""><td>21 03 4C 08</td></td<>	21 03 4C 08
8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 8E Cardholder Verification Method (CVM) List 00	
2 (CDOL2) 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 02 05 1F 03 00 00 94 Application File Locator (AFL) 08 01 01 00 94 Application File Locator (AFL) 08 01 01 00 94 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid	
2 (CDOL2) 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 02 05 1F 03 00 00 94 Application File Locator (AFL) 08 01 01 00 94 Application File Locator (AFL) 08 01 01 00 94 Application File Locator (AFL) 08 01 01 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid	42 03
List 1F 03 00 00 94 Application File Locator (AFL) 08 01 01 00 94 Application File Locator (AFL) 08 01 01 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid	42 03
List 1F 03 00 00 94 Application File Locator (AFL) 08 01 01 00 94 Application File Locator (AFL) 08 01 01 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid	
94 Application File Locator (AFL) 08 01 01 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid	
94 Application File Locator (AFL) 08 01 01 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid	
9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid	
BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid	
b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid	
b6 - Domestic goods valid b5 - International goods valid	
b5 - International goods valid	
h4 Demostic convision valid	
b4 - Domestic services valid b3 - International services valid	
b2 - ATMs valid	
b1 - non-ATM terminals valid	
BYTE 2:	
b8 - Domestic cashback allowed	
b7 - International cashback allowed	
9F 08 Application Version Number 00 02	
9F 0D Issuer Action Code - Default B0 50 9C 88 00	
9F 0E Issuer Action Code - Denial 00 00 00 00 00	
9F 0FIssuer Action Code - OnlineB0 70 9C 98 00	
9F 10 Issuer Application Data [M/Chip xx 10 xx xx xx xx xx xx xx xx xx	xx xx
Advance] xx xx xx xx xx xx *	
9F 11 Issuer Code Table Index 01	
9F 12 Application Preferred Name 55 53 20 53 61 76 69 6E 67 73	20 20
20 20 20 20 - '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	
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	02 05
36 02 9F 52 06 DF 3E 01 9F 21	03 9E
7C 14	

Tag	Element name	Da	ta								Са	ard v	/5.x
9F 7E	Application Life Cycle Data [Mastercard]			0в	14	00	01	00	00	50		79	
					00								
					00								
00	Cond looven Action Code (Contect)		00		00	00	00	00	00	00	00	00	00
C3	Card Issuer Action Code (Contact) -	00	00	00									
<u> </u>	Decline [M/Chip Advance]	06	00	00									
C4	Card Issuer Action Code (Contact) -	06	00	00									
05	Default [M/Chip Advance]	06	00	0.0									
C5	Card Issuer Action Code (Contact) -	00	00	00									
06	Online [M/Chip Advance]	03											
C6 C7	PIN Try Limit [M/Chip Advance] CDOL1 Related Data Length	42											
07	[Mastercard]	-12											
C8	CRM Country Code [Mastercard]	08	40	- 1									
C9	Accumulator 1 Currency Code		40										
Ca	[Mastercard]	08	40	- 0	00								
CA	Accumulator 1 Lower Limit [Mastercard]	00	00	00	00	00	00						
CB	Accumulator 1 Upper Limit [Mastercard]				00								
CD	Card Issuer Action Code (Contactless) -		00										
	Default [M/Chip Advance]		50	55									
CE	Card Issuer Action Code (Contactless) -	00	00	00									
0L	Online [M/Chip Advance]		•••										
CF	Card Issuer Action Code (Contactless) -	00	00	00									
01	Decline [M/Chip Advance]												
D1	Accumulator 1 Currency Conversion	08	40	00	00	00	08	40	00	00	00	08	40
	Table [Mastercard]				08								
		00											
D3	Additional Check Table [Mastercard]				FF			FF	FF	FF	FF	FF	FF
					FF								
D5	Application Control [M/Chip Advance]		10		00	00	02						
D6	Default ARPC Response Code [M/Chip Advance]	00	10										
D7	Application Control [M/Chip Advance]	00	00	00	00	00	00						
D9	Application File Locator (Contactless)												
DE	Log Data Table [M/Chip Advance]	00	00	00	00	00	00	00	00	00			
DF 02	Security Limits Status (Contact) [M/Chip	00											
01 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				00								
	Table [Mastercard]		00	00	09	99	00	00	00	09	99	00	00
		00	0.0	~~~		0.0	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]	00											
DF 1B	Counter 1 Control (Contactless) [M/Chip	00											
	Advance]	00											
DF 1D	Counter 2 Control (Contact) [M/Chip	00											
	Advance]												

Tag	Element name	Data Card v5.x
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 21		00 00 00 00 00 00
	MTA CVM (Contact) [M/Chip Advance]	
DF 23	MTA CVM (Contactless) [M/Chip	
DF 0.4	Advance]	00.40
DF 24	MTA Currency Code [M/Chip Advance]	08 40
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 27	Number Of Days Offline Limit [M/Chip	00 00
	Advance]	
DF 28	Accumulator 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 29	Accumulator 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2A	Accumulator 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2F	Counter 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 30	Interface Enabling Switch [M/Chip	01
	Advance]	
DF 35	Security Limits Status (Contactless)	00
	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
_	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	00
	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
	Advance]	
DF 40	Read Record Filter (Contactless)	00
_	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
	Advance]	
L		

4.9 Test Card 09 - Mastercard, CO, 3-AID (Credit+Maestro x2), English, USA, USD

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

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

4.9.1 Contact: CVM List - Mastercard credit, AID A000000041010

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

4.9.2 Contact: Application Tag data, AID A000000041010

Tag	Element name	Data Card v5.x
50	Application Label	4D 41 53 54 45 52 43 41 52 44 20 20
		20 20 20 20 - 'MASTERCARD'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 51 22 01
		14 83 59 49 00 OF
5A	Application Primary Account Number	54 13 33 00 89 02 00 60
	(PAN)	
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 30 39 20 20
		20 20 - 'USA DEBIT/Test Card 09'
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	11
82	Application Interchange Profile	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via
		External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03
	Cord Dick Management Data Object List	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8D	Card Risk Management Data Object List	91 UA 6A 02 95 05 9F 37 04 9F 4C 08
05	2 (CDOL2)	00 00 00 00 00 00 00 00 41 03 42 03
8E	Cardholder Verification Method (CVM)	5E 03 1F 00 00 00 00 00 00 41 03 42 03
	List	3E 03 IE 00 00 00

Tag	Element name	Data Card v5.x
94	Application File Locator (AFL)	08 01 01 00
94	Application File Locator (AFL)	08 01 01 00
94 9F 07	Application Usage Control	FF 00
91 07	Application Usage Control	BYTE 1:
		b8 - Domestic cash trans. valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid b2 - ATMs valid
		b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback NOT allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 10	Issuer Application Data [M/Chip	xx 14 xx
01 10	Advance]	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 73 74 65 72 63 61 72 64 20 20
01 12		20 20 20 20 - 'Mastercard'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	09
•••••	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
51 -11	Transaction Log Format	36 02 9F 52 06 DF 3E 01 9F 21 03 9F
		7C 14
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00
		A0 00 00 00 04 10 10 00 00 00 00 00
		00 00 00 00 00 80 00 88 01 06 A5 5A
00	Cond looven Action Oc de (Contect)	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) -	
0.4	Decline [M/Chip Advance]	1F 50 00
C4	Card Issuer Action Code (Contact) -	IF 50 00
05	Default [M/Chip Advance]	3F FB 00
C5	Card Issuer Action Code (Contact) -	SF FB 00
00	Online [M/Chip Advance]	09
C6	PIN Try Limit [M/Chip Advance]	
C7	CDOL1 Related Data Length	42
00	[Mastercard]	
C8	CRM Country Code [Mastercard]	08 40 - USA
C9	Accumulator 1 Currency Code	08 40 - USD
-	[Mastercard]	
CA	Accumulator 1 Lower Limit [Mastercard]	00 00 00 00 00
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 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]	

Tag	Element name	De	ta								Ce	rda	15 x
Tag	Element name	Da		00							0a	II U V	/5.x
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00	00	00									
D1	Accumulator 1 Currency Conversion										00		
	Table [Mastercard]		00	00	08	40	00	00	00	08	40	00	00
D 0		00	00	00									
D3	Additional Check Table [Mastercard]				FF			C C	C C	F E	FF	C C	F F
D5	Application Control [M/Chip Advance]				00								
D6	Default ARPC Response Code [M/Chip	00											
00	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											
01 02	Advance]												
DF 11	Accumulator 1 Control (Contact)	C1											
2	[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										00		
	Table [Mastercard]		00	00	09	99	00	00	00	09	99	00	00
		00	00	00	00	00	00						
DF 18	Accumulator 2 Lower Limit [Mastercard]				00								
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 C1	00	00	00	00	00						
DF 1A	Counter 1 Control (Contact) [M/Chip	CI											
DF 1B	Advance] 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											
D	Advance]												
DF 1F	Counter 2 Lower Limit [Mastercard]	00											
DF 21	Counter 2 Upper Limit [Mastercard]	00											
DF 22	MTA CVM (Contact) [M/Chip Advance]	00	00	00	00	00	00						
DF 23	MTA CVM (Contactless) [M/Chip	00	00	00	00	00	00						
	Advance]												
DF 24	MTA Currency Code [M/Chip Advance]	08	40										
DF 25	MTA NoCVM (Contact) [M/Chip	00	00	00	00	00	00						
	Advance]												
DF 26	MTA NoCVM (Contactless) [M/Chip	00	00	00	00	00	00						
	Advance]												
DF 27	Number Of Days Offline Limit [M/Chip	00	00										
	Advance]												
DF 28	Accumulator 1 CVR Dependency Data	00	00	00									
	(Contact) [M/Chip Advance]												
DF 29	Accumulator 1 CVR Dependency Data	00	00	00									
	(Contactless) [M/Chip Advance]												
DF 2A	Accumulator 2 CVR Dependency Data	00	00	00									
	(Contact) [M/Chip Advance]												
DF 2B	Accumulator 2 CVR Dependency Data	00	00	00									
	(Contactless) [M/Chip Advance]												

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

4.9.3 Contact: CVM List - Maestro debit, AID A000000043060

Cardhol	Cardholder Verification Method List ('4103 0203 0000')										
CVM	Verification Method	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 A000000043060

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	67 99 99
50	Application Label	4D 41 45 53 54 52 4F 20 20 20 20 20
		20 20 20 20 - 'MAESTRO'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 00 05 1D 25 12
		22 01 48 35 94 90 OF
5A	Application Primary Account Number (PAN)	67 99 99 89 00 00 02 00 05 1F
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
••• =•		73 74 20 43 61 72 64 20 30 39 20 20
		20 20 - 'USA DEBIT/Test Card 09'
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	XX XX XX *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	12
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'

82 Application Interchange Profile 18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b6 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b3 - Issuer authentication NOT supported b3 - Issuer authentication NOT supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b7 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported 84 Dedicated File (DF) Name A0 00 00 00 43 06 0 87 Application Priority Indicator 02 80 Card Risk Management Data Object List 9F 02 06 9F 03 06 9F 1A 02 95 05 9F 37 04 9F 42 0 1 (CDOL1) 9F 02 06 9F 03 06 9F 1A 03 9F 21 0 9F 7C 14 8D Card Risk Management Data Object List 9F 00 00 00 00 00 00 00 00 00 00 01 01 03 02 0 94 Application File Locator (AFL) 08 01 02 00 9F 70 04 9F 42 0 9F 07 Application Usage Control PF 7C 0 9F 07 Application Usage Control PF 7C 0 9F 08 Application Version Number 00 00 9F 08 Application Version Number 00 02	Tee		Dete Oerduct v
BYTE 1: b7 - Offline DDA NOT supported b5 - Cardholder verification supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - CODUL1 28 C Card Risk Management Data Object List 2 (CDOL2) 8E Cardholder Verification Method (CVM) 00 00 00 00 00 00 00 00 00 00 00 00 00	Tag	Element name	Data Card v5.x
b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - International services valid b2 - ATMS valid b1 - International services valid b2 - ATMS valid b1 - International cashback allowed b7 - Internation	82	Application Interchange Profile	
b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported b2 - On device Cardholder verification NOT supported b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported b2 - Card Risk Management Data Object List 1 (CDOL1) 24 02 9A 03 9C 01 9F 37 04 9F 35 05 9F 37 04 9F 4C 0 9F 07 Application Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 01 01 0			
b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported via External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported BY 84 Dedicated File (DF) Name 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 9F 2A 02 9A 03 9C 01 9F 37 04 9F 35 0 9F 45 02 9F 4C 08 9F 34 03 9F 21 0 9F 45 02 9F 4C 08 9F 34 03 9F 21 0 9F 7C 14 8D Card Risk Management Data Object List 2 (CDOL2) 9I 0A 8A 02 95 05 9F 37 04 9F 4C 0 00 00 00 00 00 00 00 00 00 01 01 03 02 0 00 00 00 00 00 00 00 00 00 00 01 1 03 02 0 00 00 00 00 00 00 00 00 00 00 00 00 0			
b4 - Terminal risk mgmit to be performed b3 - Issuer authentication NOT supported via External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined DDA / GEN AC NOT supported b1 - Combined NOT Supported b1 - International services valid b2 - ATMS valid b1 - non-ATM terminals valid b2 - ATMS valid b1 - International sentecos valid b2 - ATMS valid b1 - International			
b3 - Issuer authentication NOT supported via External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported B4 Dedicated File (DF) Name Application Priority Indicator 02 8C Card Risk Management Data Object List 1 (CDOL1) 9F 02 06 9F 03 06 9F 1A 02 95 05 9 9F 45 02 9F 4C 08 9F 34 03 9F 21 0 9F 45 02 9F 4C 08 9F 34 03 9F 21 0 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 4C 0 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 00 00 94 Application File Locator (AFL) 08 01 02 00 9F 07 Application File Locator (AFL) 08 01 02 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Inti' cash transactions valid b5 - International goods valid b7 - International cashback allowed b7 -			
b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported 84 Dedicated File (DF) Name A0 00 00 00 00 00 00 00 00 00 00 00 00 0			b3 - Issuer authentication NOT supported via
supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported84Dedicated File (DF) NameA0 00 00 00 04 30 6087Application Priority Indicator028CCard Risk Management Data Object List 1 (CDOL1)9F 02 06 9F 03 06 9F 1A 02 95 05 9F 2A 02 9A 03 9C 01 9F 37 04 9F 35 0 9F 45 02 9F 4C 08 9F 34 03 9F 21 0 9F 7C 148DCard Risk Management Data Object List 2 (CDOL2)9I 0A 8A 02 95 05 9F 37 04 9F 4C 0 00 00 00 00 00 00 00 00 00 01 03 02 0 00 00 00 00 00 00 00 00 00 00 00 00 00			
b1 Combined DDA / GEN AC NOT supported BYTE 2: b8 B4 Dedicated File (DF) Name A0 00 00 00 4 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 9F 2A 02 9A 03 9C 01 9F 37 04 9F 35 0 9F 45 02 9F 4C 08 9F 34 03 9F 21 0 9F 7C 14 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 4C 00 9F 07 00 00 00 00 00 00 00 00 00 00 00 00			
BYTE 2: b8 - EMV mode NOT supported84Dedicated File (DF) NameA0 00 00 00 430 6087Application Priority Indicator028CCard Risk Management Data Object List9F 02 06 9F 03 06 9F 1A 02 95 05 9F1 (CDOL1)9F 45 02 9F 4C 08 9F 34 03 9F 21 09F 02 (CDOL2)9F 7C 148DCard Risk Management Data Object List91 0A 8A 02 95 05 9F 37 04 9F 4C 09ECardolder Verification Method (CVM)00 00 00 00 00 00 00 00 41 03 02 094Application File Locator (AFL)08 01 02 0094Application File Locator (AFL)08 01 02 009F 07Application Usage ControlFF C09F 07Application Usage ControlFF C09F 07Application Usage ControlBYTE 1: b8 - Domestic services valid b5 - International goods valid b5 - International goods valid b5 - International goods valid b7 - Int' cash transactions valid b7 - International services valid b3 - International cashback allowed b7 -			
B8 - EMV mode NOT supported 84 Dedicated File (DF) Name A0 00 00 00 04 30 60 87 Application Priority Indicator 02 97 02 06 9F 03 06 9F 102 06 9F 102 05 95 24 02 94 03 95 04 9F 35 04 9F 35 04 9F 35 02 9F 45 02 9F 37 04 9F 35 04 9F 37 04 9F 35 04 9F 37 04 9F 30 30 00 30 00 30			
84 Dedicated File (DF) Name A0 00 00 00 04 30 60 87 Application Priority Indicator 02 02 04 03 06 9F 03 06 9F 10 02 95 05 9 8C Card Risk Management Data Object List 1 (CDOL1) 9F 02 9F 03 06 9F 10 03 9F 04 9F 35 04 9F 35 9F 45 02 9F 40 03 9F 10 9F 37 04 9F 35 9F 7 04 9F 30 9F 71 04 9F 30 9F 71 04 9F 03 9F 71 04 9F 72 72 72			
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 92 2A 02 9A 03 9C 01 9F 37 04 9F 35 02 9F 7C 14 8D Card Risk Management Data Object List 2 (CDOL2) 9I 0A 8A 02 95 05 9F 37 04 9F 4C 02 9F 7C 14 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 00 00	84	Dedicated File (DF) Name	A0 00 00 00 04 30 60
8C Card Risk Management Data Object List 1 (CDOL1) 9F 02 06 9F 03 06 9F 1A 02 95 05 95 2A 02 9A 03 9C 01 9F 37 04 9F 35 0 9F 45 02 9F 4C 08 9F 34 03 9F 21 0 9F 7C 14 8D Card Risk Management Data Object List 2 (CDOL2) 9I 0A 8A 02 95 05 9F 37 04 9F 4C 0 00 00 00 00 00 00 00 00 00 00 00 00 0			
1 (CDOL1) 2A 02 9A 03 9C 01 9F 37 04 9F 35 0 9F 45 02 9F 4C 08 9F 34 03 9F 21 0 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 4C 0 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 01 94 Application File Locator (AFL) 08 01 02 00 94 Application File Locator (AFL) 08 01 02 00 97 7 Application Usage Control FF C0 97 87 04 9F 4C 0 97 07 97 97 07 Application Usage Control 97 7 0 97 08 Application Usage Control 97 7 0 97 09 Application Usage Control 97 8 0 97 00 101 000 00 00 00 00 00 00 00 101 000 00 00 00 97 01 101 000 00 00 00 00 00 100 00 00 00 00 97 02 101 000 00 00 00 00 00 100 00 00 00 00 00 97 08 Application Code - Denial 00 00 00 00 00 00 97 09 100 00			9F 02 06 9F 03 06 9F 1A 02 95 05 5F
9F 45 02 9F 4C 08 9F 34 03 9F 21 0 9F 7C 14 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 4C 0 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 01 41 03 02 0 94 Application File Locator (AFL) 08 01 02 00 94 Application File Locator (AFL) 08 01 02 00 97 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic services valid b3 - International goods valid b4 - Domestic services valid b5 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cas	00		2A 02 9A 03 9C 01 9F 37 04 9F 35 01
8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 8A 02 95 05 9F 37 04 9F 4C 0 00 00 00 00 00 00 00 00 00 00 00 00 0			9F 45 02 9F 4C 08 9F 34 03 9F 21 03
2 (CDOL2) 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 00 00			
8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 00 00	8D		91 0A 8A 02 95 05 9F 37 04 9F 4C 08
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94 Application File Locator (AFL) 08 01 02 00 9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b7 - Domestic services valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed 9F 08 Application Version Number 00 02 9F 00 Issuer Action Code - Default B0 50 BC 88 00 9F 05 Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip xx			
9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b7 - Int'l cash transactions valid b7 - Int'l cash transactions valid b7 - Int'l cash transactions valid b8 - Domestic services valid b3 - International goods valid b3 - International services valid b3 - International services valid b7 - Int'l cash transactions valid b7 - Int'l cash transactions valid b7 - Int'l cash transactions valid b7 - International services valid b3 - International services valid b3 - International services valid b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed 9F 08 Application Version Number 00 02 9F 00 Issuer Action Code - Default B0 50 BC 88 00 9F 01 Issuer Action Code - Denial 00 00 00 00 9F 02 Issuer Application Data [M/Chip xx 10 xx	-		
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b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b5 - International goods valid b3 - International services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed b7 - International cashback allowed9F 08Application Version Number00 00 029F 00Issuer Action Code - DefaultB0 50 BC 88 0090 009F 05Issuer Action Code - Denial 0000 00 0000 009F 10Issuer Action Data [M/Chip Advance]xx 10 xx xx	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 b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed9F 08Application Version Number00 029F 0DIssuer Action Code - DefaultB0 50 BC 88 009F 0EIssuer Action Code - Denial00 00 00 009F 0FIssuer Action Code - Denial00 00 00 009F 10Issuer Action Code - OnlineB0 70 BC 98 009F 10Issuer Application Data [M/Chip Advance]xx xx xx9F 11Issuer Code Table Index01			
b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed9F 08Application Version Number00 029F 0DIssuer Action Code - DefaultB0 50 BC 88 009F 0EIssuer Action Code - Denial00 00 00 00 009F 10Issuer Action Code - OnlineB0 70 BC 98 009F 10Issuer Action Data [M/Chip Advance]xx 10 xx xx xx xx xx xx xx xx xx xx9F 11Issuer Code Table Index01			
b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed9F 08Application Version Number00 029F 0DIssuer Action Code - DefaultB0 50 BC 88 009F 0EIssuer Action Code - Denial00 00 00 00 009F 10Issuer Action Code - OnlineB0 70 BC 98 009F 10Issuer Action Data [M/Chip Advance]xx xx xx xx xx xx xx xx xx xx xx9F 11Issuer Code Table Index01			
b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - International cashback allowed9F 08Application Version Number00 029F 0DIssuer Action Code - DefaultB0 50 BC 88 009F 0EIssuer Action Code - Denial00 00 00 00 009F 0FIssuer Action Code - OnlineB0 70 BC 98 009F 10Issuer Application Data [M/Chip Advance]xx xx xx xx xx xx xx xx xx xx xx9F 11Issuer Code Table Index01			
b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed9F 08Application Version Number9F 0DIssuer Action Code - Default9F 0EIssuer Action Code - Denial9F 0FIssuer Action Code - Denial9F 0FIssuer Action Code - Online9F 10Issuer Application Data [M/Chip Advance]9F 11Issuer Code Table Index9F 11Issuer Code Table Index			
b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed9F 08Application Version Number9F 0DIssuer Action Code - Default9F 0EIssuer Action Code - Denial9F 0FIssuer Action Code - Denial9F 0FIssuer Action Code - Online9F 10Issuer Application Data [M/Chip Advance]9F 11Issuer Code Table Index			b3 - International services valid
BYTE 2: b8 - Domestic cashback allowed b7 - International 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 10 xx			
b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Internation Code - Online			
b7 - International cashback allowed9F 08Application Version Number00 029F 0DIssuer Action Code - DefaultB0 50 BC 88 009F 0EIssuer Action Code - Denial00 00 00 00 009F 0FIssuer Action Code - OnlineB0 70 BC 98 009F 10Issuer Application Data [M/Chipxx 10 xx xx xx xx xx xx xx xx xx xxAdvance]xx xx xx xx xx xx xx xx xx9F 11Issuer Code Table Index01			
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9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx			
9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx			
9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx			
Advance] xx xx xx xx xx xx xx 9F 11 Issuer Code Table Index 01			
9F 11 Issuer Code Table Index 01	51 10		
	9F 11		
9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 20 20 20 20 20 20			4D 61 65 73 74 72 6F 20 20 20 20 20
20 20 20 - 'Maestro'			
9F 14 Counter 1 Lower Limit [Mastercard] 00	9F 14	Counter 1 Lower Limit [Mastercard]	
9F 17 Personal Identification Number (PIN) 03		· · ·	03
Try Counter			
9F 23 Counter 1 Upper Limit [Mastercard] 00	9F 23		00
9F 26 Application Cryptogram (AC) xx		· · · · · · · · · · · · · · · · · · ·	xx xx xx xx xx xx xx *
9F 27 Cryptogram Information Data (CID) 80			80
9F 36 Application Transaction Counter (ATC) xx xx *			xx xx *
9F 42 Application Currency Code 08 40 - USD			08 40 - USD
9F 4D Transaction Log Entry 0B 0A			
of 12 Handadion Log Entry			9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
of in Transaction Log Porthat			36 02 9F 52 06 DF 3E 01 9F 21 03 9F
7C 14			7C 14

9F 7E Application Life Cycle Data [Mastercard] 04 10 01 00	Tag	Element name	Da	ita								Са	rd ۱	′5.x
A0 00 00 00 4 30 60 00 00 00 00 00 00 00 00 00 00 00 00			04	10	0в	14	00	01	00	00	50			
00 00<														
C3 Card Issuer Action Code (Contact) - Decline [M/Chip Advance] 00 00 00 C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 1P 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 3P 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 08 40 · USA CB Card Issuer Action Code (Contactes) - Default [M/Chip Advance] 05 50 00 C6 Card Issuer Action Code (Contactess) - Default [M/Chip Advance] 06 50 00 C6 Card Issuer Action Code (Contactess) - Default [M/Chip Advance] 06 40 00 00 00 84 00 00 00 84 00 00 00 84 00 00 00 C7 Card Issuer Action Code (Contactess) - Default [M/Chip Advance] 06 40 00 00 00 84 00 00 00 08 40 00 00 00 84 00 00 00 00 00 00 00 00 00 00 00 00 00														
Column Section Code (Contact) - Default [M/Chip Advance] IP 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 3P FB 00 C6 PIN Try Limit [M/Chip Advance] 03 C7 CDC1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 00 00 00 00 00 00 C8 CRM Country Code [Contactless) - [Mastercard] 06 50 00 C8 Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 C8 Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 C9 Accumulator 1 Lower Contextess) - Default [M/Chip Advance] 06 FB 00 C6 Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 00 00 00 00 00 84 00 00 00 84 00 00 C1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 00 FF FF FF FF FF FF FF FF FF F	C2	Card Issuer Action Code (Contact)					00	00	00	00	00	00	00	00
C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] JF 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] JF FB 00 C6 PIN Try Limit [M/Chip Advance] 03 C7 CDQL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 C6 FIN Ion Code (Contactless) - Default [M/Chip Advance] 06 50 00 00 00 C7 Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	03		00	00	00									
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C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 3F FB 00 C6 PiN Try Limit [M/Chip Advance] 03 C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 CB Accumulator 1 Currency Code (Contactless) - Default [M/Chip Advance] 06 50 0 CE Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 06 40 00 00 08 40 00 00 08 40 00 00 08 40 00 00 00 00 84 00 00 00 08 40 00 00 08 40 00 00 00 00 00 08 40 00 00 00 84 00 00 00 08 40 00 00 D3 Additional Check Table [Mastercard] 00 10 D4 Cecurity Limits Status (Contactless) - Default ARPC Response Code [M/Chip Advance] 00 10 00 00 00 00 00 00 00 00 00 D4 Application Control [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 D5 Application Control [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 D6 Default ARPC Response Code [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00	04													
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C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 <t< td=""><td>C6</td><td></td><td>03</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	C6		03											
[Mastercard] 08 40 USA C8 CRM Country Code [Mastercard] 08 40 USD C9 Accumulator 1 Currency Code [Mastercard] 00			42											
C9 Accumulator 1 Currency Code [Mastercard] 08 40 - USD CA Accumulator 1 Lower Limit [Mastercard] 00														
[Mastercard] Image: constraint of the second s	C8	CRM Country Code [Mastercard]	08	40	- U	SA								
CA Accumulator 1 Lower Limit [Mastercard] 00	C9	Accumulator 1 Currency Code	08	40	- U	SD								
CB Accumulator 1 Upper Limit [Mastercard] 00		[Mastercard]												
CD Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 50 00 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00														
Default [M/Chip Advance] 06 FB 00 CF Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 00							00	00						
CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 06 FB 00	CD	· · · · · · · · · · · · · · · · · · ·	06	50	00									
Online [M/Chip Advance] 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 00 08 40 00 00 00 08 40 00 00 00 840 00 00 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 00 00 840 00 00 00 840 00 00 00 00 00 840 00 00 00 840 00 00 D3 Additional Check Table [Mastercard] 00 00 00 FF F														
CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00	CE		06	FB	00									
Decline [M/Chip Advance] D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 00 08 40 00 00 08 40 00 00 08 40 00 00 00 00 84 00 00 08 40 00 00 08 40 00 00 00 D3 Additional Check Table [Mastercard] 00 00 00 0F F FF FF FF FF FF FF FF FF FF	~-			~ ~ ~	~ ~ ~									
D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 00 08 40 00	CF		00	00	00									
Table [Mastercard] 00 0	D1		0.0	40	0.0	00	00	00	40	00	00	00	0.0	40
Induct (Master Carl) 00 D3 Additional Check Table [Mastercard] 00	D1													
DS Notional choice rules (nuclearly) FF FF </td <td></td> <td>l able [Mastercard]</td> <td></td> <td></td> <td>00</td> <td>00</td> <td>-10</td> <td>00</td> <td>00</td> <td>00</td> <td>00</td> <td>10</td> <td>00</td> <td>00</td>		l able [Mastercard]			00	00	-10	00	00	00	00	10	00	00
Image: Second	D3	Additional Check Table [Mastercard]	00	00	00	FF	FF	FF	FF	FF	FF	FF	FF	FF
D6 Default ARPC Response Code [M/Chip Advance] 00 10 D7 Application Control [M/Chip Advance] 80 00 80 00 20 20 D9 Application File Locator (Contactless) 08 01 01 00 80 00														
Do Advance] Advance] 80 00 80 00 6 02 D9 Application Control [M/Chip Advance] 00					80	00	C6	02						
D7 Application Control [M/Chip Advance] 80 00 80 00 c6 02 D9 Application File Locator (Contactless) 08 01 01 00 08 03 03 00 DE Log Data Table [M/Chip Advance] 00 <td>D6</td> <td></td> <td>00</td> <td>10</td> <td></td>	D6		00	10										
D9 Application File Locator (Contactless) 08 01 01 00 08 03 03 00 DE Log Data Table [M/Chip Advance] 00 <td< td=""><td>D7</td><td></td><td>80</td><td>00</td><td>80</td><td>00</td><td>C6</td><td>02</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	D7		80	00	80	00	C6	02						
DE Log Data Table [M/Chip Advance] 00									03	00				
DF 02 Security Limits Status (Contact) [M/Chip Advance] 00 DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] C1 DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] C1 DF 14 Accumulator 2 Control (Contact) [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 00 <td></td> <td>00</td> <td></td> <td></td> <td></td>											00			
Advance] C1 DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] C1 DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] C1 DF 14 Accumulator 2 Control (Contact) [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Control (Contactless) [M/Chip Advance] 09 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 00 00 00 09 99 00														
DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] C1 DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] C1 DF 14 Accumulator 2 Control (Contact) [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 00														
[M/Chip Advance] C1 DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] C1 DF 14 Accumulator 2 Control (Contact) [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 00 0	DF 11		C1											
[M/Chip Advance] 00 DF 14 Accumulator 2 Control (Contact) [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 0														
DF 14 Accumulator 2 Control (Contact) [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 <t< td=""><td>DF 12</td><td></td><td>C1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	DF 12		C1											
[M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 <			~~~											
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 00 00 09 99 00	DF 14		00											
DF 16 Accumulator 2 Control (Contactions) 09 99 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 00 00 09 99 00 00 09 99 00 00 09 99 00 00 00 09 99 00 00 00 00 00 09 99 00			00											
DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 0 00 09 99 00 00 09 99 00 00 09 99 00 00 09 99 00 00 09 99 00 00 09 99 00	DF 15		00											
DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 00 09 99 00 00 09 99 00 00 00 09 99 00	DE 16		09	99										
DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 00 09 99 00														
DF 18 Accumulator 2 Lower Limit [Mastercard] 00	DF 17		09	99	00	00	00	09	99	00	00	00	09	99
DF 18 Accumulator 2 Lower Limit [Mastercard] 00 </td <td></td>														
DF 19 Accumulator 2 Upper Limit [Mastercard] 00 00 00 00 00 00 DF 1A Counter 1 Control (Contact) [M/Chip Advance] C1 DF 1B Counter 1 Control (Contactless) [M/Chip Advance] C1 DF 1D Counter 2 Control (Contact) [M/Chip 00 DF 1D Counter 2 Control (Contact) [M/Chip 00														
DF 1A Counter 1 Control (Contact) [M/Chip C1 Advance] DF 1B Counter 1 Control (Contactless) [M/Chip C1 DF 1D Counter 2 Control (Contact) [M/Chip 00		· · · · · ·												
Advance] C1 DF 1B Counter 1 Control (Contactless) [M/Chip Advance] C1 DF 1D Counter 2 Control (Contact) [M/Chip 00					00	00	00	00						
DF 1B Counter 1 Control (Contactless) [M/Chip C1 Advance] DF 1D Counter 2 Control (Contact) [M/Chip 00	DF 1A		C1											
Advance] DF 1D Counter 2 Control (Contact) [M/Chip	DE 1B		C1											
DF 1D Counter 2 Control (Contact) [M/Chip 00														
	DF 1D		00											

	Element name	Data Card v5.x
	Counter 2 Control (Contactless) [M/Chip Advance]	00
	Counter 2 Lower Limit [Mastercard]	00
	Counter 2 Upper Limit [Mastercard]	00
	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
	MTA CVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
	MTA Currency Code [M/Chip Advance]	08 40
	MTA NoCVM (Contact) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 26	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 27	Number Of Days Offline Limit [M/Chip	00 00
	Advance]	
DF 28	Accumulator 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 29	Accumulator 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2A	Accumulator 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
	Counter 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 30	Interface Enabling Switch [M/Chip	01
	Advance]	
	Security Limits Status (Contactless)	00
	[M/Chip Advance]	
	Security Limits Status Common [M/Chip	00
	Advance]	
	CVR Issuer Discretionary Data	00
	(Contact) [M/Chip Advance]	
	CVR Issuer Discretionary Data	00
	(Contactless) [M/Chip Advance]	
	Read Record Filter (Contact) [M/Chip	00
	Advance]	
	Read Record Filter (Contactless)	00
	[M/Chip Advance]	
	DS Management Control [M/Chip	20
	Advance]	

4.9.5 Contact: CVM List - U.S. Maestro, AID A000000042203

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

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	67 99 99
50	Application Label	55 53 20 4D 41 45 53 54 52 4F 20 20
50	Application Label	20 20 20 20 - 'US MAESTRO'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 00 05 1D 25 12
51		22 01 48 35 94 90 OF
5A	Application Primary Account Number	67 99 99 89 00 00 02 00 05 1F
	(PAN)	
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 30 39 20 20
		20 20 - 'USA DEBIT/Test Card 09'
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	12
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00
-		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported via External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 22 03
87	Application Priority Indicator	03
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03
00	Card Disk Management Data Object List	9F 7C 14 91 0A 8A 02 95 05 9F 37 04 9F 4C 08
8D	Card Risk Management Data Object List	91 0A 6A 02 95 05 9F 37 04 9F 4C 06
05	2 (CDOL2)	00 00 00 00 00 00 00 00 00 05 40 03
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 00 02 05 42 03 1F 03 00 00 00 00
0.1		08 01 01 00 08 03 03 00
94	Application File Locator (AFL)	08 01 01 00 08 03 03 00
94	Application File Locator (AFL)	
9F 07	Application Usage Control	FF C0
		BYTE 1: b8 - Domestic cash trans. valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback allowed
	Application Version Number	00 02
9F 08		R0 F0 00 00 00
9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
		B0 50 9C 88 00 00 00 00 00 00 B0 70 9C 98 00

4.9.6 Contact: Application Tag data, AID A000000042203

Tag	Element name	Da	ta								Са	ard v	v5.x
9F 10	Issuer Application Data [M/Chip			хx	хx	хx	хx	хx	хх	xx	xx		
	Advance]	xx	xx	xx	xx	xx	xx	*					
9F 11	Issuer Code Table Index	01											
9F 12	Application Preferred Name									72	6F	20	20
			20	20	20	- 'L	IS M	aes	tro'				
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]		vv	~~	~~	vv	~~	~~	xx	*			
9F 26 9F 27	Application Cryptogram (AC) Cryptogram Information Data (CID)	80	~~	~~	~~	~~	~~	~~	~~				
9F 27 9F 36	Application Transaction Counter (ATC)		xx	*									
9F 30 9F 42	Application Transaction Counter (ATC)			- U	SD								
9F 4D	Transaction Log Entry		40 0A	0									
9F 4F	Transaction Log Format	-	-	01	9F	02	06	5F	2A	02	9A	03	9F
	Transaction Log Format										21		
		7C	14										
9F 7E	Application Life Cycle Data [Mastercard]										17		
											00 06		
											00		
C3	Card Issuer Action Code (Contact) -		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]			- U									
C9	Accumulator 1 Currency Code	08	40	- U	SD								
<u> </u>	[Mastercard]	00	00	00	00	00	00						
CA CB	Accumulator 1 Lower Limit [Mastercard] Accumulator 1 Upper Limit [Mastercard]					00							
CD CD	Card Issuer Action Code (Contactless) -		50		00	00	00						
CD	Default [M/Chip Advance]	00	50	00									
CE	Card Issuer Action Code (Contactless) -	06	FB	00									
0L	Online [M/Chip Advance]												
CF	Card Issuer Action Code (Contactless) -	00	00	00									
0.	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	08	40	00	00	00	08	40	00	00
.		00									FF		
D3	Additional Check Table [Mastercard]					F.F.		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		10	-	-	-							
	Advance]												
D7	Application Control [M/Chip Advance]	80	00	80	00	C6	02						
D9	Application File Locator (Contactless)	08	01	01	00	08	03	03	00				
DE	Log Data Table [M/Chip Advance]	00	00	00	00	00	00	00	00	00			
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00											
DF 11	Accumulator 1 Control (Contact)	C1											
	I IM/Chip Advancel												
DF 12	[M/Chip Advance] Accumulator 1 Control (Contactless)	C1											

Tag Element name Data Card v5.x DF 14 Accumulator 2 Control (Contact) 00	Tee		Data	
IMC/chip Advance] IMC/chip Advance] 00 DF 15 Accumulator 2 Currency Code [Mastercard] 09 99 DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 00 09 99 00 00 09 99 00 00 09 99 00 00 09 99 00 00 09 99 00 00 09 99 00 00 09 99 00 00 09 99 00 00 09 99 00 0	Tag	Element name		v5.X
IM/Chip Advance] Image: constraint of the second of the seco	DF 14	[M/Chip Advance]	00	
[Mastercard] 0 DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00	DF 15		00	
One ODe ODE <thoe< th=""> <thode< th=""> <thode< th=""></thode<></thode<></thoe<>	DF 16		09 99	
Induct (mission and product) 00 DF 18 Accumulator 2 Upper Limit [Mastercard] 00 <td< td=""><td>DF 17</td><td>Accumulator 2 Currency Conversion</td><td></td><td></td></td<>	DF 17	Accumulator 2 Currency Conversion		
DF 18 Accumulator 2 Lower Limit [Mastercard] 00 </td <td></td> <td>Table [Mastercard]</td> <td></td> <td>00</td>		Table [Mastercard]		00
DF 19 Accumulator 2 Upper Limit [Mastercard] 00 </td <td>DE 18</td> <td>Accumulator 2 Lower Limit [Mastercard]</td> <td></td> <td></td>	DE 18	Accumulator 2 Lower Limit [Mastercard]		
DF 1A Counter 1 Control (Contact) [M/Chip Advance] C1 DF 1B Counter 1 Control (Contact) [M/Chip Advance] 00 DF 1D Counter 2 Control (Contact) [M/Chip Advance] 00 DF 1E Counter 2 Control (Contactless) [M/Chip Advance] 00 DF 1E Counter 2 Lower Limit [Mastercard] 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 DF 23 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 00 DF 24 MTA CVM (Contactless) [M/Chip Advance] 08 40 00 <td></td> <td></td> <td></td> <td></td>				
Advance] C1 DF 1B Counter 1 Control (Contactless) [M/Chip C1 DF 1D Counter 2 Control (Contactless) [M/Chip 00 Advance] 00 Advance DF 1E Counter 2 Lower Limit [Mastercard] 00 DF 21 Counter 2 Lower Limit [Mastercard] 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00				
Advance] 00 DF 1D Counter 2 Control (Contact) [M/Chip 00 Advance] 00 DF 1E Counter 2 Control (Contactless) [M/Chip 00 DF 1F Counter 2 Upper Limit [Mastercard] 00 DF 21 Counter 2 Upper Limit [Mastercard] 00 DF 22 MTA CVM (Contactless) [M/Chip 00<		Advance]		
Advance] 00 DF 1E Counter 2 Control (Contactless) [M/Chip 00 DF 1F Counter 2 Lower Limit [Mastercard] 00 DF 21 Counter 2 Upper Limit [Mastercard] 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00 00 00 00 DF 23 MTA CVM (Contact[ess) [M/Chip 00 00 00 00 00 DF 24 MTA Currency Code [M/Chip Advance] 08 40 00		Advance]		
Advance] 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 1D	· / - ·	00	
DF 1F Counter 2 Lower Limit [Mastercard] 00 DF 21 Counter 2 Upper Limit [Mastercard] 00	DF 1E		00	
DF 21 Counter 2 Upper Limit [Mastercard] 00 DF 22 MTA CVM (Contact) [M/Chip Advance] 00	DF 1F		00	
DF 23 MTA CVM (Contactless) [M/Chip Advance] 00 </td <td>DF 21</td> <td></td> <td>00</td> <td></td>	DF 21		00	
Advance] 08 40 DF 24 MTA Currency Code [M/Chip Advance] 08 40 DF 25 MTA NoCVM (Contact) [M/Chip Advance] 00 00 00 00 00 DF 26 MTA NoCVM (Contactless) [M/Chip Advance] 00 00 00 00 00 00 00 DF 27 Number Of Days Offline Limit [M/Chip Advance] 00	DF 22		00 00 00 00 00 00	
DF 25 MTA NoCVM (Contact) [M/Chip Advance] 00 00 00 00 00 00 DF 26 MTA NoCVM (Contactless) [M/Chip Advance] 00	DF 23	· · · ·	00 00 00 00 00 00	
DF 25 MTA NoCVM (Contact) [M/Chip Advance] 00 00 00 00 00 DF 26 MTA NoCVM (Contactless) [M/Chip Advance] 00 <td>DF 24</td> <td></td> <td>08 40</td> <td></td>	DF 24		08 40	
DF 26MTA NoCVM (Contactless) [M/Chip Advance]000000000000DF 27Number Of Days Offline Limit [M/Chip Advance]0000000000DF 28Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]0000000000DF 29Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]0000000000DF 29Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]00000000DF 28Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]00000000DF 2CCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00000000DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00000000DF 2ECounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00000000DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00000000DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00000000DF 35Security Limits Status (Contactless) [M/Chip Advance]00000000DF 37Security Limits Status Common [M/Chip Advance]00000000DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]000000DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance] <td>DF 25</td> <td>MTA NoCVM (Contact) [M/Chip</td> <td>00 00 00 00 00 00</td> <td></td>	DF 25	MTA NoCVM (Contact) [M/Chip	00 00 00 00 00 00	
DF 27Number Of Days Offline Limit [M/Chip Advance]0000DF 28Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]000000DF 29Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]000000DF 2AAccumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]000000DF 2BAccumulator 2 CVR Dependency Data (Contactess) [M/Chip Advance]000000DF 2CCounter 1 CVR Dependency Data (Contact) [M/Chip Advance]000000DF 2DCounter 1 CVR Dependency Data (Contact) [M/Chip Advance]000000DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]000000DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]000000DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]000000DF 2FCounter 2 CVR Dependency Data (Contact) [M/Chip Advance]000000DF 30Interface Enabling Switch [M/Chip Advance]0101DF 37Security Limits Status (Contactless) [M/Chip Advance]0000DF 37Security Limits Status Common [M/Chip Advance]01DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data00	DF 26	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00	
DF 28Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 29Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2AAccumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2BAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2CCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]01DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data00DF 30CVR Issuer Discretionary Data00	DF 27	Number Of Days Offline Limit [M/Chip	00 00	
DF 29Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2AAccumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2BAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2CCounter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 36CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00	DF 28	Accumulator 1 CVR Dependency Data	00 00 00	
DF 2AAccumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2BAccumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2CCounter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 36CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00	DF 29	Accumulator 1 CVR Dependency Data	00 00 00	
DF 2B (Contactless) [M/Chip Advance]00 00 00DF 2C (Contact) [M/Chip Advance]00 00 00DF 2D (Contact) [M/Chip Advance]00 00 00DF 2D (Contactless) [M/Chip Advance]00 00 00DF 2E (Contact) [M/Chip Advance]00 00 00DF 2E (Contact) [M/Chip Advance]00 00 00DF 2F (Contact) [M/Chip Advance]00 00 00DF 30 (Contactless) [M/Chip Advance]00 00 00DF 35 (Contactless) [M/Chip Advance]00 00 00DF 37 (M/Chip Advance]00 00 00DF 37 (Contact) [M/Chip Advance]00DF 37 (Contact) [M/Chip Advance]00DF 30 (M/Chip Advance]00DF 31 (Contact) [M/Chip Advance]00DF 33 (Contact) [M/Chip Advance]00DF 33 (Contact) [M/Chip Advance]00DF 34 (Contact) [M/Chip Advance]00DF 35 (Contact) [M/Chip Advance]00DF 35 (Contact) [M/Chip Advance]00DF 30 (Contact) [M/Chip Advance]00DF 31 (Contact) [M/Chip Advance]00DF 33CVR Issuer Discretionary Data (Contact) [M/Chip Advance]DF 33CVR Issuer Discretionary Data00	DF 2A	Accumulator 2 CVR Dependency Data	00 00 00	
DF 2CCounter 1 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data00DF 30CVR Issuer Discretionary Data00	DF 2B	Accumulator 2 CVR Dependency Data	00 00 00	
DF 2DCounter 1 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00	DF 2C	Counter 1 CVR Dependency Data	00 00 00	
DF 2ECounter 2 CVR Dependency Data (Contact) [M/Chip Advance]00 00 00DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 36CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 37CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 30CVR Issuer Discretionary Data00	DF 2D	Counter 1 CVR Dependency Data	00 00 00	
DF 2FCounter 2 CVR Dependency Data (Contactless) [M/Chip Advance]00 00 00DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37CVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 3DCVR Issuer Discretionary Data00	DF 2E	Counter 2 CVR Dependency Data	00 00 00	
DF 30Interface Enabling Switch [M/Chip Advance]01DF 35Security Limits Status (Contactless) [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 37Security Limits Status Common [M/Chip Advance]00DF 3CCVR Issuer Discretionary Data (Contact) [M/Chip Advance]00DF 3DCVR Issuer Discretionary Data00	DF 2F	Counter 2 CVR Dependency Data	00 00 00	
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 00	DF 30	Interface Enabling Switch [M/Chip	01	
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 00	DF 35	Security Limits Status (Contactless)	00	
DF 3C CVR Issuer Discretionary Data (Contact) [M/Chip Advance] 00 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	Card v5.x
DF 3F	Read Record Filter (Contact) [M/Chip	00	
	Advance]		
DF 40	Read Record Filter (Contactless)	00	
	[M/Chip Advance]		
DF 41	DS Management Control [M/Chip	20	
	Advance]		

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

A Dual Interface (Contact+Contactless), 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 A000000042203

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

4.10.2 Contact: Application Tag data, AID A000000042203

Tag	Element name	Data	Card v7.x
42	Issuer Identification Number (IIN)	54 13 33	
50	Application Label	55 53 20 4D 41 45 53 54 52 MAESTRO'	4f - 'US
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 08 08 10 79 00 00 0F	51 22 20
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 91 30	
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 73 74 20 43 61 72 64 20 31 20 20 - 'USA DEBIT/Test Card 10'	30 20 20
5F 24	Application Expiration Date	25 12 31	
5F 25	Application Effective Date	xx xx xx *	
5F 28	Issuer Country Code	08 40 - USA	
5F 2D	Language Preference	65 6E - 'en' (English)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	13	
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'	

Tag	Element name	Data Card v7.x
82	Application Interchange Profile [M/Chip,	18 00 DVTF 4
	PayPass]	BYTE 1: b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported via
		External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2: b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 22 03
87	Application Priority Indicator	01
80 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
		9F 45 02 9F 4C 08 9F 34 03
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 05 42 03
	List	1F 03
8F	Certification Authority Public Key Index	FA
90	Issuer Public Key Certificate	18 89 B9 97 E6 FC E8 4B 4A E7 AB 87
		43 1C BD B3 DF 8C 1D 5A 55 A7 F6 0D
		29 59 AF 3A 51 04 E7 58 83 17 ED 74
		08 66 68 CF 1A 05 47 84 F7 49 3C 6D 74 7F A7 96 EC 14 D3 33 A6 8E C7 E0
		08 62 95 9A 0B D0 F0 48 20 80 B7 1A
		C1 B7 62 5B 1B 8B 1F 35 A6 69 19 99
		BA 78 F5 92 E2 3F 95 E9 96 09 D1 08
		CF 1C 0E 30 8A 8B F6 4F BD E8 37 D3
		CE 13 8A 50 DC 50 AF 4B 41 EE 53 D9
		8A 11 B6 A8 1D DD 44 CC 43 0C 1E F3
		BB 9D 1D 75 A0 2F AA 9C 81 4A FC 58 D3 52 41 07
92	Issuer Public Key Remainder	08 02 04 01 18 01 01 00 20 01 01 00
94	Application File Locator (AFL)	FF C0
9F 07	Application Usage Control	BYTE 1:
		b8 - Domestic cash trans. valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number	00 02
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	в0 70 9С 98 00
9F 10	Issuer Application Data [M/Chip 4]	xx 14 xx
05.43		xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	
9F 12	Application Preferred Name	55 53 20 4D 61 65 73 74 72 6F - 'US
OF 14	Lower Coppositive Offling Limit	Maestro' 00
9F 14	Lower Consecutive Offline Limit	01
9F 17	Personal Identification Number (PIN)	
	Try Counter	

Tag	Element name	Data Card v7.x
9F 1F	Track 1 Discretionary Data	30 36 32 39 33 30 34 32 33 30 30 30
0 - 00		30 30 30 30 30 30 30 30 30 30 30 30 30
9F 23	Upper Consecutive Offline Limit	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 32	Issuer Public Key Exponent	03
9F 36	Application Transaction Counter (ATC)	
9F 42	Application Currency Code	08 40 - USD
9F 44	Application Currency Exponent	02
9F 46	ICC Public Key Certificate	4C BF 13 28 20 81 6C 78 CE AF C1 CB 16 A9 C7 FC B7 22 5E 07 27 F2 71 A9
		12 89 4C EE B7 B4 DD 99 54 F1 C8 71
		BE 2C 88 37 9A D5 6C 07 3F 2F 3F 05
		67 6D 68 26 0A B4 36 30 BD 28 7E 26
		1B 42 20 1C 14 F6 FA FE 20 0F 1C 11
		3E C6 04 5A 36 CE B8 DF 56 70 C0 6F 06 51 5F D6 88 F2 AF D2 5F B5 D1 38
		C3 C3 1F 5E 04 59 92 B9 F4 00 91 CC
		03 6C F1 A4
9F 47	ICC Public Key Exponent	03
9F 48	ICC Public Key Remainder	F3 25 B3 BD AC FB F2 AD 0D 2C A1 DE
		FF 97 C7 E4 A6 3C E0 4C 97 FE 9B 6B
		A9 86 C7 1C 35 71 2E 0E 6C 1D 89 4F
9F 49	Dynamic Data Authentication Data	5F 9F D6 99 82 C7 9F 37 04
96 49	Object List (DDOL)	JE 57 04
9F 4A	Static Data Authentication Tag List	82
9F 4A 9F 4D	Transaction Log Entry	OB OA
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
31 41	Transaction Log Format	36 02 9F 52 06
9F 7E	Application Life Cycle Data [Mastercard]	03 10 0C 12 00 09 00 00 FF FF FF FF
		FF
		FF FF FF FF 00 04 00 00 02 60 00 00
C3	Card Issuer Action Code - Decline	38 4A 02 11 50 35 43 44 30 37 32 20 00 </td
03	[Mastercard]	
C4	Card Issuer Action Code - Default	06 50 00
04	[Mastercard]	
C5	Card Issuer Action Code - Online	06 FB 00
00	[Mastercard]	
C6	Counters [Mastercard]	00 01 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 00
	Amount [M/Chip]	
СВ	Upper Cumulative Offline Transaction	00 00 00 00 00 00
	Amount [M/Chip]	
D1	Currency Conversion Table [M/Chip]	08 40 00 01 00 08 40 00 01 00 08 40
		00 01 00 08 40 00 01 00 08 40 00 01
D2	Additional Chaok Table Masterrar-1	00 00 00 00 FF FF FF FF FF FF FF FF FF
D3	Additional Check Table [Mastercard]	FF
D5	Application Control [M/Chip]	82 00
D6	Default ARPC Response Code	00 10
	[M/Chip4]	
DF 02	Security Limits Status [Mastercard]	00
2. 02		* Tag value changes with card usage

4.10.3 CTLS: CVM List - U.S. Maestro, AID A000000042203 (PayPass)

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

4.10.4 Contactless: Application Tag data, AID A000000042203

Tag	Element name	Data Card v7.x
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 4D 41 45 53 54 52 4F - US
		MAESTRO'
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 51 22 20
		08 08 10 79 00 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 91 30
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 34	Application PAN Sequence Number	13
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	19 80
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported via
		EXTERNAL AUTH command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC supported
		BYTE 2:
		b8 - EMV Contactless supported
84	Dedicated File (DF) Name	A0 00 00 00 04 22 03
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	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 05 42 03
	List	1F 03
8F	Certification Authority Public Key Index	EF

Tag	Element name	Data Card v7.x
90	Issuer Public Key Certificate	5B 2E 1F EF 4D 7D 2C 16 16 12 21 F7
		97 2F E6 99 B7 82 44 E0 73 C8 AC 75 86 CE D1 76 EF 7B 93 AC 19 0B 05 70
		40 E1 18 4F 2F 55 AC 70 D2 AA C3 94
		BE 22 6A 26 50 D3 CA ED 90 60 88 C5
		3A 88 B8 3C 46 1F 37 6D 89 10 B8 51
		81 54 F3 08 EE ED 23 BC 15 7C FA BA
		6E 51 26 9F 01 6D 59 FE 21 A6 F9 10
		F2 85 13 0D EA F6 A4 78 BE 77 9D 2B
		AD 08 E1 2E D6 A5 93 71 5A 18 72 15
		C5 63 28 1C B2 B7 2E 5B 14 05 5D 2D D8 30 4A C2 20 2E 53 96 D0 4C 5C 79
		55 0B 4D E9 FA DA CB 35 F3 19 06 C5
		A4 42 27 29 D6 A5 A8 F5 E1 4C B9 0D
		B7 05 49 4B 3D B1 0D E6 19 F3 B0 3E
		64 96 FE 79 F4 6E 64 97 2A 46 34 A0
		35 EF 7E 50 20 49 40 36 03 E0 BC FC
		33 C3 87 BB 6D 72 CF F8 33 89 7E 81 F5 02 3F F4 D6 A9 CC 0C 89 E8 78 3F
		07 B7 F0 55 3E 9D D3 59 B6 5B 62 3A
		F1 CE 27 8D 65 3C 37 07
92	Issuer Public Key Remainder	14 3E 90 B8 B5 E6 2B E5 A9 0D 5A 4E
		F1 5C 77 40 4D 29 94 48 98 77 85 D7
		E8 80 C2 CD
94	Application File Locator (AFL)	10 01 01 01 18 01 01 00 20 01 02 00
94	Application File Locator (AFL)	08 02 04 01 18 01 01 00 20 01 01 00
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash trans. valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
	Application Vargion Number	b7 - International cashback allowed
9F 08	Application Version Number	B4 50 84 00 00
	Issuer Action Code - Default	00 00 00 00 00
9F 0E	Issuer Action Code - Denial	B4 70 84 80 00
9F 0F	Issuer Action Code - Online	01 14 A0 40 03 24 00 00 01 02 00 00
9F 10	Issuer Application Data [M/Chip	00 00 00 00 00 FF
0E 11	Advance]	01
9F 11	Issuer Code Table Index	
9F 12	Application Preferred Name	55 53 20 4D 61 65 73 74 72 6F - 'US Maestro'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 14 9F 17	Personal Identification Number (PIN)	03
9-17	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
		80
9F 27	Cryptogram Information Data (CID)	03
9F 32	Issuer Public Key Exponent	
9F 36	Application Transaction Counter (ATC)	
9F 42	Application Currency Code	08 40 - USD
9F 44	Application Currency Exponent	02

Tag Element name Data Card V7.x 9F 46 ICC Public Key Certificate 2A 80 55 3A 5C 4F 76 9F 46 ICC Public Key Certificate 2A 80 55 3A 5C 47 F5 40 39 61 77 75 77 77 77 77 77 77 77 77 78 78 77 79 78 78 77 79 78 77 79 78 77 79 78 77 79 78 77 79 78 77 78 77 78 77 78 77 78 77 78 77 78 77 78 77 78 77 78 77 78 77 78 77 78 78 78 78 78 78 77 78 78 77 78 78 77 78 78 77 78													_	
Bit Bit 119 Bit Bit 119 Bit Bit 77 CB BB BF PA P3 PA PA P5 PA P5 P1 P5 P7 CF CF PA P5 D1 P5 D7 D5 D1 D5 <	Tag	Element name												
PF 47 ICC Public Key Exponent 03 9F 64 Transaction Log Entry 9 0 0A 9F 64 Transaction Log Entry 04 03 03 03	9F 46	ICC Public Key Certificate												
B9 DF CC SF PE 20 CE D7 NF SD PF AF SD D9 BA 45 C D0 D9 BA 45 C D0 D1 D1 D0 D2 21 18 D2 D1 D1 D0 D2 D1 D1 D0 D1 D1 <td></td>														
PF 47 ICC Public Key Exponent 00 0A 0A <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>														
PF 3B 7A CE 7C 50 E1 76 87 6F 7F 80 24 83 75 3C 17 90 68 82 21 1B 8C DB 56 F7 EA ED CD 52 55 20 3C 5A 75 A3 56 91 AF 37 50 91 0B C1 FA 2A 1D 99 51 84 DA AC DE AC 5C E0 14 30 71 26 A2 43 28 D7 F0 1E 6C A8 C5 E0 14 30 71 26 A2 43 28 D7 F0 1E 6C A8 C5 E0 14 30 71 26 A2 43 28 D7 F0 1E 6C A8 C5 E0 14 30 71 26 A2 43 28 D7 F0 1E 6C A8 C5 E0 14 30 71 26 A2 43 28 D7 F0 1E 6C A8 C5 E0 14 30 71 26 A2 43 28 D7 F0 1E 6C A8 C5 E0 14 30 71 26 A2 63 97 4E 78 22 E8 DA 6A 48 DA FC C7 E9 3A 45 67 92 28 E 3 99 52 02 A9 0A A2 C3 95 4E 94 21 E8 33 46 72 61 98 48 D3 47 DE 55 21 EC 18 1B 17 99 c 48 D3 47 DE 55 21 EC 18 B1 79 20 C3 F7 40 02 55 4A B9 1C 4C EE FF 54 C0 52 04 5F 28 E7 39 BF 32 F9 C3 FF F7 D7 21 A8 93 C6 57 05 07 6E D9 64 F2 D1 DF ED 71 40 C5 F A3 B A4 D0 23 9F 47 9F 47 ICC Public Key Exponent 03 9F 47 Static Data Authentication Tag List 9F 40 72 9F 47 Transaction Log Entry 08 9F 47 Transaction Log Format 1MCChip Advance] 37 9F 60 CVC3track1 [Mastercard] xx xx * 9F 61 CVC3track2 [Mastercard] xx xx * 9F 71 Protected Data Envelope 1 [M/Chip Advance] 20 2			-		-		-			-				-
9F 47 ICC Public Key Exponent 03 9F 40 Transaction Log Entry 05 00														
86 91 AF 37 50 91 0B DC PZ 21 10 30 DC 10 20 12 6 AZ 43 28 D7 FO 1E 6C AS CC 80 10 BE 13 45 6F EI 0 12 0 20 20 20 20 42 42 13 13 13 13 13 13 13 13 13 13 13 13 13 13 14 14 14 14 14 <td></td>														
51. 84 DA AC DE AC 5C E0 14 DT 70 1E 6C 78 C 5C E0 14 DT 70 1E 6C 78 C 5C 70 14 DT 70 1E 6C 78 C 78 C 78 DE 7			58	F7	EA	ED	CD	52	55	20	3C	5A	F5	A3
A2 32 20 77 12 6C A3 26 07 60 18 B5 12 86 14 B5 12 65 64 05 56 86 B8 93 A5 67 52 28 94 12 12 71 12 13 12 12 13 12 12 13 12 12 13 12 13 12 12 13 13 12 12 13 12 12 13 12 12 13<			86	91	AF	37	50	91	0в	DC	1 F	A2	A1	D9
B9 C2 83 90 18 B2 28 DA 64 49 DA FE C7 B4 93 AE FE 22 88 DA AE FE C7 E8 DA AE C3 95 4E 94 21 E8 3A 4F 72 61 98 DA FT DR C5 15 FF 10 C4 CE FF F DT 14 85 FF PT 140 65 FA BA AD 02 9F AS Static Data Authentication Tag List 82			51	84	DA	AC	DE	AC	5C	E0	14	3D	71	26
AB 93 AE FB 22 E8 DA AB DA FE 23 3 65 GF 22 66 DS 20 PS 0A A2 C3 95 4E 94 21 EB 33 46 72 61 98 4B D3 47 DB CB 52 14 C1 BB 17 75 21 BS 15 65 75 50 75 50 75 15 15 75 15 15 75 15 15 75 15 75 16 75 17 71 <td></td>														
Final Action Final Action<														
A2 C3 95 46 94 12 EB 33 47 DB C6 52 17 1 B8 10 79 53 8F 74 02 B5 44 B3 12 42 EF F5 D4 9F D7 D2 18 93 67 73 B8 F3 E9 C3 FF F7 D7 L3 89 C4 D5 FA 10 05 FA 10 05 FA 10 05 FA 10 05 FA 10 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 97 10 <td></td>														
4b 13 14 7 DB CB 52 1F C1 CE EB 1A 79 53 75 74 02 B5 4A B9 1C 4C EE FF 54 C0 52 04 57 25 07 6E 10 23 FF T T 10 65 FA 35 84 00 23 FF T DF 20 10 9F 20 10 9F 10 9F 20 10 9F 02 95 20 00 9F 10 10 10														
Bit 74 C2 B5 A4 B9 C4 CE EF FE D4 PF D1 21 A8 B3 C6 57 05 07 62 BF FF D1 21 A8 B3 C6 57 05 07 62 D9 64 Static Data Authentication Tag List B2														
C0 52 24 57 29 29 F2 21 28 93 26 57 05 07 64 56 10 64 PF 47 ICC Public Key Exponent 03 IP 10														
F7 D7 21 A8 93 C6 57 05 07 6E D9 64 9F 47 ICC Public Key Exponent 03 V														
9F 47 ICC Public Key Exponent 03 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 0F 9F 4F Transaction Log Format 9F 27 01 9F 02 06 0F 3E 01 9F 21 03 9F 9F 60 CVC3track1 [Mastercard] xx xx * - - - - - - - - - - - 00 0														
9F 4A Static Data Authentication Tag List 82 9F 4A Static Data Authentication Tag List 9F 27 01 9F 02 05 5F 2A 02 9A 03 9F 9F 4D Transaction Log Entry 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 9F 4D Application Capabilities Information MChip Advance] 9F 10 00 00 0 00														
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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 5D Application Capabilities Information [M/Chip Advance] 01 00 00 0 00			0в	0A										
36 02 9F 52 06 DF 3E 01 9F 21 03 9F 9F 5D Application Capabilities Information [M/Chip Advance] 01 00 00 0 01 00	-				01	9F	02	06	5F	2A	02	9A	03	9F
9F 5D. Application Capabilities Information [M/Chip Advance] 01 00 00 9F 60 CVC3track1 [Mastercard] xx xx * 9F 61 CVC3track2 [Mastercard] xx xx * 9F 6E Third Party Data [Mastercard] 08 40 31 31 30 00 <td></td> <td>Transaction Log Format</td> <td></td>		Transaction Log Format												
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[M/Chip Advance] vi vi<	9F 5D	Application Capabilities Information	01	00	00									
9F 60 CVC3track1 [Mastercard] xx														
9F 61 CVC3track2 [Mastercard] xx	9F 60		xx	xx	*									
9F 6E Third Party Data [Mastercard] 08 40 31 31 30 30 00 <td></td> <td></td> <td>xx</td> <td>xx</td> <td>*</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			xx	xx	*									
9F 70 Protected Data Envelope 1 [M/Chip Advance] 20			08	40	31	31	30	30	00	00	00	00	00	00
9F 70 Protected Data Envelope 1 [M/Chip Advance] 20	51 02													
Advance] 20			00	00	00	00	00	00	00	00				
Advance] 20	9F 70	Protected Data Envelope 1 [M/Chip	20	20	20	20	20	20	20	20	20	20	20	20
9F 71 Protected Data Envelope 2 [M/Chip Advance] 20											20	20	20	20
Advance] 20		-												
Advance] 20	9F 71	Protected Data Envelope 2 [M/Chip	-											
9F 72 Protected Data Envelope 3 [M/Chip Advance] 20		Advance]									20	20	20	20
Advance] 20	05 70										~~~	~~~		~~~
9F 73 Protected Data Envelope 4 [M/Chip Advance] 20	9F 72													
9F 73 Protected Data Envelope 4 [M/Chip Advance] 20		Advancej									20	20	20	20
Advance] 20 <	0E 73	Protected Data Envelope 4 [M/Chip									20	20	20	20
9F 74 Protected Data Envelope 5 [M/Chip Advance] 20	9175		-											
9F 74 Protected Data Envelope 5 [M/Chip Advance] 20		Auvancej												
Advance] 20	9F 74	Protected Data Envelope 5 [M/Chip									20	20	20	20
9F 75 Unprotected Data Envelope 1 [M/Chip Advance] 20			20	20	20	20	20	20	20	20				
9F 76 Unprotected Data Envelope 2 [M/Chip Advance] 20		-												
Advance] 20	9F 75	Unprotected Data Envelope 1 [M/Chip												
9F 76 Unprotected Data Envelope 2 [M/Chip Advance] 20											20	20	20	20
9F 77 Unprotected Data Envelope 3 [M/Chip Advance] 20											<u> </u>			
9F 77 Unprotected Data Envelope 3 [M/Chip Advance] 20	9F 76													
9F 77 Unprotected Data Envelope 3 [M/Chip Advance] 20		Advancej									20	20	20	20
9F 78 Unprotected Data Envelope 4 [M/Chip Advance] 20	0F 77	Inprotected Data Envolution 2 M/Chin									20	20	20	20
9F 78 Unprotected Data Envelope 4 [M/Chip Advance] 20	9711													
9F 78 Unprotected Data Envelope 4 [M/Chip Advance] 20													•	_•
Advance] 20	9F 78	Unprotected Data Envelope 4 [M/Chip									20	20	20	20
9F 79 Unprotected Data Envelope 5 [M/Chip Advance] 20			20	20	20									
Advance] 20 20 20 20 20 20 20 20 20 20 20 20 20			20	20	20	20	20	20	20	20				
Advance] 20 20 20 20 20 20 20 20 20 20 20 20 20	9F 79	Unprotected Data Envelope 5 [M/Chip												
											20	20	20	20
			20	20	20	20	20	20	20	20				

9F 7E Application Life Cycle Data [Mastercard] 03 10 02 12 00 00 07 FF	Tag	Element name	Da	ta								Са	rd ۱	/7.x
FF FF FF FF 00 04 00 00 02 60 00 00 C3 Card Issuer Action Code (Contact) - Decline [M/Chip Advance] 00 00 00 C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 06 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 06 FB 00 C6 PIN Try Limit [M/Chip Advance] 03 C6 PIN Try Limit [M/Chip Advance] 03 C7 CDOL1 Related Data Length 42 [Mastercard] 08 40 - USA 00 00 00 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code 08 40 - USA CB Card Issuer Action Code (Contactless) - 06 58 00 C6 Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 C6 Card Issuer Action Code (Contactless) - 06 F9 00 Chine [M/Chip Advance] 08 40 00 01 00 08 40 00 01 00 08 40 00 01 C6 Card Issuer Action Code (Contactless) - 08 40 00 01 00 08 40 00 01 C7 Card Issuer Action Code (Contactless) - 08 40 00 01 00 08 40 00 01 C8 Application Control [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00	9F 7E	Application Life Cycle Data [Mastercard]	03	10	0C	12	00	09	00	00	FF	FF	FF	FF
38 4A 02 11 50 35 43 44 30 37 32 20 C3 Card Issuer Action Code (Contact) - Decline [M/Chip Advance] 00 <td></td>														
C3 Card Issuer Action Code (Contact) - Decline [M/Chip Advance] 00 00 00 C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 06 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 06 50 00 C6 PIN Try Limit [M/Chip Advance] 03 03 04 C7 CDOL 1 Related Data Length [Mastercard] 42 04 04 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 06 00<														
Decline [M/Chip Advance] Decline [M/Chip Advance] C4 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 06 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 03 03 C6 PIN Try Limit [M/Chip Advance] 03 03 C7 CDOL 1 Related Data Length [Mastercard] 42 08 40 - USA C8 CRM Country Code [Mastercard] 08 40 - USA 00 C9 Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00	C2	Card Issuer Action Code (Contact)					50	35	43	44	30	51	32	20
C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 06 FB 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 03 C6 PIN Try Limit [W/Chip Advance] 03 C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Corrency Contactless) - Default [M/Chip Advance] 06 58 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 08 40 00 01 00 08 40 00 01 00 08 40 00 01 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 00 00	03													
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Online [M/Chip Advance] 03 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] 00 00 00 00 00 00 00 CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 C6 Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 06 78 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 08 40 00 01 00 08 40 00 01 00 08 40 00 01 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 00 00	C5		06	FB	00									
C6 PIN Try Limit [M/Chip Advance] 03 C7 CDOL1 Related Data Length 42 [Mastercard] 08 40 - USA C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code 08 40 - USA C4 Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Lower Control (Contactless) - 06 58 00 Default [M/Chip Advance] 06 40 00 01 00 08 40 00 01 00 08 40 00 CF Card Issuer Action Code (Contactless) - 06 58 00 Decline [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 00 00	00													
C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 <t< td=""><td>C6</td><td></td><td>03</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	C6		03											
[Mastercard] 08 40 USA C8 CRM Country Code [Mastercard] 08 40 USD C9 Accumulator 1 Currency Code [Mastercard] 00			42											
C9 Accumulator 1 Currency Code [Mastercard] 08 40 USD CA Accumulator 1 Lower Limit [Mastercard] 00														
[Mastercard] Image: constraint of the second s	C8	CRM Country Code [Mastercard]	08	40	– l	JSA								
CA Accumulator 1 Lower Limit [Mastercard] 00	C9	Accumulator 1 Currency Code	08	40	- U	SD								
CB Accumulator 1 Upper Limit [Mastercard] 00		[Mastercard]												
CD Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 06 58 00 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 06 F8 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 08 00	CA													
Default [M/Chip Advance] CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 06 FB 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 08 00 01 00 08 40 00 01 00 08 40 00 01 00 01 00 08 40 00 01 00 08 40 00 01 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 FF F							00	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 01 00 08 40 00 01 00 08 40 00 01 00 08 40 00 01 00 08 40 00 01 00 08 40 00 01 00 08 40 00 01 00 08 40 00 01 00 08 40 00 01 00 08 40 00 01 00 08 40 00 01 00 00 00 01 00 08 40 00 01 00 00 01 00 00 01 00 00 00 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 0	CD	· · · · · · · · · · · · · · · · · · ·	06	58	00									
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CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 08 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 01 00 08 40 00 01 00 08 40 00 01 00 08 40 00 01 00	CE		06	F8	00									
Ori Decline [M/Chip Advance] Ori Ori <td>05</td> <td></td> <td>00</td> <td></td>	05		00											
D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 01 00 08 40 00 01 00 00 01 01<	CF	· · · · · · · · · · · · · · · · · · ·	08	00	00									
Table [Mastercard] 00 01 00 01 00 0	D1		0.8	40	00	01	00	0.8	40	00	01	00	0.8	40
Inductional Check Table [Mastercard] 00 D3 Additional Check Table [Mastercard] 00 00 00 00 FF FF FF FF FF FF FF FF FF F	וט													
Definition Control [M/Chip Advance] FF														
D5 Application Control [M/Chip Advance] 8E 00 80 00 86 02 D6 Default ARPC Response Code [M/Chip Advance] 00 10 01 01 01 01 01 01 01 02 00 40 00 86 02 D7 Application Control [M/Chip Advance] 02 00 40 00 86 02 D9 Application File Locator (Contactless) 10 01 01 01 02 01 0	D3	Additional Check Table [Mastercard]	00	00	00	FF	FF	FF	FF	FF	FF	FF	FF	FF
D6 Default ARPC Response Code [M/Chip Advance] 00 10 D7 Application Control [M/Chip Advance] 02 00 40 00 86 02 D9 Application File Locator (Contactless) 10 01 01 01 01 00														
D7 Application Control [M/Chip Advance] 02 00 40 00 86 02 D9 Application File Locator (Contactless) 10 01 01 01 01 00					80	00	86	02						
D7 Application Control [M/Chip Advance] 02 00 40 00 86 02 D9 Application File Locator (Contactless) 10 01 01 01 01 00	D6		00	10										
D9 Application File Locator (Contactless) 10 01 01 01 01 00 <td< td=""><td>D7</td><td></td><td>02</td><td>00</td><td>40</td><td>00</td><td>86</td><td>02</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	D7		02	00	40	00	86	02						
DE Log Data Table [M/Chip Advance] 00									01	00	20	01	02	00
DF 02 Security Limits Status (Contact) [M/Chip 00 Advance] 01 01 DF 11 Accumulator 1 Control (Contact) C1 [M/Chip Advance] 00 DF 12 Accumulator 1 Control (Contactless) C1 [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] 00 DF 16 Accumulator 2 Control (Contactless) 00 [M/Chip Advance] 09 99 00 01 00 09 99 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 00 00 00 00 00 00 00 00 00 00 00 00 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>01</td><td>02</td><td>00</td></td<>												01	02	00
DF 10 County Limits Guide (Contact) [IN/Ohip C1 Mdvance] C1 DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] C1 DF 12 Accumulator 2 Control (Contact) [M/Chip Advance] 00 DF 14 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 17 Accumulator 2 Currency Code [Mastercard] 09 99 00 01 00 09 99 00 01 00 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 00 00 00 00 00 00 00 00 00 00														
DF 11Accumulator 1 Control (Contact) [M/Chip Advance]C1DF 12Accumulator 1 Control (Contactless) [M/Chip Advance]C1DF 14Accumulator 2 Control (Contact) [M/Chip Advance]00DF 15Accumulator 2 Control (Contactless) [M/Chip Advance]00DF 16Accumulator 2 Control (Contactless) [M/Chip Advance]00DF 17Accumulator 2 Currency Code [Mastercard]09DF 18Accumulator 2 Currency Conversion Table [Mastercard]00DF 18Accumulator 2 Lower Limit [Mastercard] 000000DF 19Accumulator 2 Upper Limit [Mastercard] Advance]0000DF 18Counter 1 Control (Contactless) [M/Chip Advance]C1DF 10Counter 1 Control (Contactless) [M/Chip Advance]C1	01 02													
IM/Chip Advance]DF 12Accumulator 1 Control (Contactless) [M/Chip Advance]C1DF 14Accumulator 2 Control (Contact) [M/Chip Advance]00DF 15Accumulator 2 Control (Contactless) [M/Chip Advance]00DF 16Accumulator 2 Currency Code [Mastercard]09DF 17Accumulator 2 Currency Conversion Table [Mastercard]09DF 18Accumulator 2 Lower Limit [Mastercard]00DF 19Accumulator 2 Upper Limit [Mastercard]00DF 14Counter 1 Control (Contact) [M/Chip Advance]01DF 18Counter 1 Control (Contactless) [M/Chip Advance]01DF 19Counter 1 Control (Contactless) [M/Chip Advance]01DF 10Counter 2 Control (Contact) [M/Chip01DF 110Counter 2 Control (Contact) [M/Chip01	DF 11		C1											
DF 12 Accumulator 1 Control (Contactless) [M/Chip Advance] C1	5													
[M/Chip Advance] 00 DF 14 Accumulator 2 Control (Contact) [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 0	DF 12		C1											
DF 14 Accumulator 2 Control (Contact) [M/Chip Advance] 00 DF 15 Accumulator 2 Control (Contactless) [M/Chip Advance] 00 DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>														
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 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00	DF 14		00											
DF 16 [M/Chip Advance] DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00		[M/Chip Advance]												
DF 16 Accumulator 2 Currency Code [Mastercard] 09 99 DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00	DF 15		00											
DF 10 [Mastercard] 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 </td <td></td>														
DF 17 Accumulator 2 Currency Conversion Table [Mastercard] 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00	DF 16		09	99										
DF 18 Accumulator 2 Lower Limit [Mastercard] 00 01 00 09 99 00 01 00 09 99 00 01 00						A -								
DF 18 Accumulator 2 Lower Limit [Mastercard] 00	DF 17													
DF 18 Accumulator 2 Lower Limit [Mastercard] 00 </td <td></td> <td>I able [Mastercard]</td> <td></td> <td>01</td> <td>00</td> <td>09</td> <td>33</td> <td>00</td> <td>0T</td> <td>00</td> <td>09</td> <td>23</td> <td>00</td> <td>01</td>		I able [Mastercard]		01	00	09	33	00	0T	00	09	23	00	01
DF 19 Accumulator 2 Upper Limit [Mastercard] 00 00 00 00 00 00 DF 1A Counter 1 Control (Contact) [M/Chip Advance] C1 DF 1B Counter 1 Control (Contactless) [M/Chip Advance] C1 DF 1D Counter 2 Control (Contact) [M/Chip 00	DF 18	Accumulator 2 Lower 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] C1 DF 1B Counter 1 Control (Contactless) [M/Chip Advance] C1 DF 1D Counter 2 Control (Contact) [M/Chip 00														
DF 1B Counter 1 Control (Contactless) [M/Chip Advance] C1 DF 1D Counter 2 Control (Contact) [M/Chip 00														
Advance] DF 1D Counter 2 Control (Contact) [M/Chip	DF 1B		C1											
Advance]	DF 1D		00											
		Advance]												

B2 》

Tag	Element name	Data Card v7.x
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip	00 00 00 00 00 00
DI 23	Advance]	
DF 24	MTA Currency Code [M/Chip Advance]	09 99
DF 25	MTA NoCVM (Contact) [M/Chip	00 00 00 00 00 00
DI 25	Advance]	
DF 26	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 27	Number Of Days Offline Limit [M/Chip	00 00
	Advance]	
DF 28	Accumulator 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 29	Accumulator 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2A	Accumulator 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2F	Counter 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 30	Interface Enabling Switch [M/Chip	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 00 00 00
	Advance]	
DF 40	Read Record Filter (Contactless)	08 03 03 00
	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
	Advance]	
		* Ten welve also and we are with send we are

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

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

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

4.11.1 Contact: CVM List - Mastercard debit, AID A0000000041010

Cardholder Verification Method List ('0205 4103 4203 5E03 1F00')							
CVM	Verification Method	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 A000000041010

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	4D 41 53 54 45 52 43 41 52 44 20 44
		45 42 49 54 - 'MASTERCARD DEBIT'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 51 22 01
		14 83 59 49 00 OF
5A	Application Primary Account Number (PAN)	54 13 33 00 89 02 00 60
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65
		73 74 20 43 61 72 64 20 31 31 20 20
55.04		20 20 - 'USA DEBIT/Test Card 11'
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	11
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported via
		External Auth command
		b2 - On device Cardholder verification NOT
1		supported
1		b1 - Combined DDA / GEN AC NOT supported BYTE 2:
		b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
00	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
1		9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14

Tag	Element name	Data Card v5.x
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 00 02 05 41 03 42 03 5E 03 1F 00 00 00
94	Application File Locator (AFL)	08 01 02 00
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid b2 - ATMs valid
		b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
05.00	Angliggting Manajar Number	b7 - International cashback allowed
9F 08 9F 0D	Application Version Number Issuer Action Code - Default	B0 50 BC 88 00
9F 0D 9F 0E	Issuer Action Code - Denal	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 10	Issuer Application Data [M/Chip	xx 10 xx
	Advance]	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	4D 61 73 74 65 72 63 61 72 64 20 44 65 62 69 74 - 'Mastercard Debit'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	09
	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx * 80
9F 27	Cryptogram Information Data (CID) Application Transaction Counter (ATC)	80 xx xx *
9F 36 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
	5	36 02 9F 52 06 DF 3E 01 9F 21 03 9F
	Analisation Life Quele Data [Mastersand]	7C 14 04 10 0B 14 00 01 00 00 50 17 79 00
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 10 10 00 00 00 00 00
		00 00 00 00 00 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
C1	Decline [M/Chip Advance]	06 00 00
C4	Card Issuer Action Code (Contact) - 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 [Mastercard]	08 40 - USD
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) - Default [M/Chip Advance]	06 50 00
	Default [M/Chip Advance]	

Tag	Element name	Da	ta								Са	rd ۷	/5.x
CE	Card Issuer Action Code (Contactless) -	06	FB	00									
CF	Online [M/Chip Advance] Card Issuer Action Code (Contactless) -	00	00	00									
CF	Decline [M/Chip Advance]	00	00	00									
D1	Accumulator 1 Currency Conversion	08	40	00	00	00	08	40	00	00	00	08	40
	Table [Mastercard]								00				
		00											
D3	Additional Check Table [Mastercard]		00					FF	FF	FF	FF	FF	FF
DE	Application Control [M/Chip Advance]					FF C6							
D5 D6	Application Control [M/Chip Advance] Default ARPC Response Code [M/Chip	00		80	00	0	02						
00	Advance]	00	10										
D7	Application Control [M/Chip Advance]		00	80	00	C6	02						
D9	Application File Locator (Contactless)				00		03	03	00				
DE	Log Data Table [M/Chip Advance]								00	00			
DF 02	Security Limits Status (Contact) [M/Chip	00											
2. 02	Advance]												
DF 11	Accumulator 1 Control (Contact)	C1											
	[M/Chip Advance]												
DF 12	Accumulator 1 Control (Contactless)	C1											
	[M/Chip Advance]												
DF 14	Accumulator 2 Control (Contact)	00											
	[M/Chip Advance]												
DF 15	Accumulator 2 Control (Contactless)	00											
BF 10	[M/Chip Advance]		~~~										
DF 16	5		99										
DF 17	[Mastercard]	09	00	00	00	00	00	00	00	00	00	00	99
	Accumulator 2 Currency Conversion Table [Mastercard]								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						
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											
	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						
DE 00		00											
DF 26	MTA NoCVM (Contactless) [M/Chip	00	00	00	00	00	00						
DF 27	Advance] Number Of Days Offline Limit [M/Chip	00	00										
	Advance]	00	00										
DF 28	Accumulator 1 CVR Dependency Data	00	00	00									
20	(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]												

Tee		Dete
Tag	Element name	Data Card v5.x
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
2. 2.	(Contactless) [M/Chip Advance]	
DF 30	Interface Enabling Switch [M/Chip	01
D1 00	Advance]	
DF 35	Security Limits Status (Contactless)	00
DI 00	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
DF 31	Advance]	
		00
DF 3C	CVR Issuer Discretionary Data	00
	(Contact) [M/Chip Advance]	00
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]	

4.11.3 Contact: CVM List - U.S. checking, AID A00000004220301

Cardholder Verification Method List ('0205 4203 1F03')							
CVM	Verification Method	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 A00000004220301

Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	55 53 20 43 48 45 43 4B 49 4E 47 20 20 20 20 20 - 'US CHECKING'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 51 22 01 14 83 59 49 00 0F
5A	Application Primary Account Number (PAN)	54 13 33 00 89 02 00 60
5F 20	Cardholder Name	55 53 41 20 44 65 62 69 74 2F 54 65 73 74 20 43 61 72 64 20 31 31 20 20 20 20 - 'USA DEBIT/Test Card 11'
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	11
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'

Tag	Element name	Data Card v5.x							
82	Application Interchange Profile	18 00							
		BYTE 1:							
		b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported							
		b5 - Cardholder verification supported							
		b4 - Terminal risk mgmt to be performed							
		b3 - Issuer authentication NOT supported via							
		External Auth command							
		b2 - On device Cardholder verification NOT							
		supported							
		b1 - Combined DDA / GEN AC NOT supported							
		BYTE 2:							
0.4	Dedicated File (DE) Name	b8 - EMV mode NOT supported A0 00 00 00 04 22 03 01							
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 9F 35 01							
	1 (CDOL1)	9F 45 02 9F 4C 08 9F 34 03 9F 21 03							
		9F 7C 14							
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08							
	2 (CDOL2)								
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 05 42 03							
	List	1F 03 00 00 00 00							
94	Application File Locator (AFL)	08 01 01 00 08 03 03 00							
9F 07	Application Usage Control	FF CO							
		BYTE 1:							
		b8 - Domestic cash trans. valid							
		b7 - Int'l cash transactions valid							
		b6 - Domestic goods valid b5 - International goods valid							
		b4 - Domestic services valid							
		b3 - International services valid							
		b2 - ATMs valid							
		b1 - non-ATM terminals valid							
		BYTE 2:							
		b8 - Domestic cashback allowed							
05.00		b7 - International cashback allowed							
9F 08	Application Version Number	B0 50 9C 88 00							
9F 0D	Issuer Action Code - Default	00 00 00 00 00							
9F 0E	Issuer Action Code - Denial	B0 70 9C 98 00							
9F 0F	Issuer Action Code - Online	xx 10 xx							
9F 10	Issuer Application Data [M/Chip	xx 10 xx							
	Advance]	01							
9F 11	Issuer Code Table Index	55 53 20 43 68 65 63 6B 69 6E 67 20							
9F 12	Application Preferred Name	20 20 20 20 - 'US Checking'							
9F 14	Counter 1 Lower Limit [Mastercard]	00							
9F 17	Personal Identification Number (PIN)	09							
	Try Counter								
9F 23	Counter 1 Upper Limit [Mastercard]	00							
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *							
9F 27	Cryptogram Information Data (CID)	80							
9F 36	Application Transaction Counter (ATC)	xx xx *							
9F 42	Application Currency Code	08 40 - USD							
9F 4D	Transaction Log Entry	0B 0A							
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F							
		36 02 9F 52 06 DF 3E 01 9F 21 03 9F							
		7C 14							
	I	ı							

Tag	Element name	Da	ita								Са	rd ۷	′5.x
9F 7E	Application Life Cycle Data [Mastercard]				14							79	
					00								
					00 00								
C3	Card laguer Action Cada (Cantact)		00			00	00	00	00	00	00	00	00
03	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00	00	00									
C4	Card Issuer Action Code (Contact) -	06	50	00									
04	Default [M/Chip Advance]												
C5	Card Issuer Action Code (Contact) -	06	FB	00									
05	Online [M/Chip Advance]												
C6	PIN Try Limit [M/Chip Advance]	09											
C7	CDOL1 Related Data Length	42											
01	[Mastercard]												
C8	CRM Country Code [Mastercard]	08	40	- U	SA								
C9	Accumulator 1 Currency Code		40										
00	[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) -		50										
02	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	08	40	00	00	00	08	40	00	00	00	08	40
	Table [Mastercard]		00	00	08	40	00	00	00	08	40	00	00
		00											
D3	Additional Check Table [Mastercard]				FF FF			FF	FF	FF	FF	FF	FF
D5	Application Control [M/Chip Advance]				00								
D5	Default ARPC Response Code [M/Chip		10										
00	Advance]												
D7	Application Control [M/Chip Advance]	80	00	80	00	C6	02						
D9	Application File Locator (Contactless)				00			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				00								
	Table [Mastercard]	00		00	09	99	00	00	00	09	99	00	00
DF 18	Accumulator 2 Lower Limit [Mastercard]			00	00	00	00						
DF 18	Accumulator 2 Upper Limit [Mastercard]				00								
DF 19 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]												
I		l											

B2 》

Tag	Element name	Data Card v5.x
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	Advance]	
DF 24		08 40
	MTA Currency Code [M/Chip Advance]	
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	
DF 26	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 27	Number Of Days Offline Limit [M/Chip	00 00
	Advance]	
DF 28	Accumulator 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 29	Accumulator 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2A	Accumulator 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2F	Counter 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 30	Interface Enabling Switch [M/Chip	01
	Advance]	
DF 35	Security Limits Status (Contactless)	00
	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	00
	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
	Advance]	
DF 40	Read Record Filter (Contactless)	00
L	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
	Advance]	

4.11.5 Contact: CVM List - Maestro debit, AID A000000043060

Cardholder Verification Method List ('0205 4103 0203 0000')							
CVM	Verification Method	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 A000000043060

Tog	Element name	Doto Cord v5 v
Tag	Element name	Data Card v5.x
42	Issuer Identification Number (IIN)	4D 41 45 53 54 52 4F 20 20 20 20 20
50	Application Label	4D 41 45 53 54 52 4F 20 20 20 20 20 20 20 20 20 20 20 20 20
F7	Trools 2 Foundant Data	67 99 99 89 00 00 02 00 05 1D 25 12
57	Track 2 Equivalent Data	22 01 48 35 94 90 0F
5A	Application Primary Account Number	67 99 99 89 00 00 02 00 05 1F
_	(PÁN)	
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' 25 12 31
5F 24	Application Expiration Date	
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	12
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported via
		External Auth command
		b2 - On device Cardholder verification NOT supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 30 60
87	Application Priority Indicator	03
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List 2 (CDOL2)	91 OA 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 05 41 03
	List	02 03 00 00 00 00
94	Application File Locator (AFL)	08 01 02 00

9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int? cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic cashvalid b3 - International services valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Internatinalowed b7 - International cashback b7 - International c			
BYTE 1: b8 - Domestic cash trans. valid b7 - International goods valid b4 - Domestic services valid b5 - International goods valid b4 - Domestic services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: 9F 08 Application Version Number 00 02 9F 00 Issuer Action Code - Default B0 50 BC 88 00 9F 01 Issuer Action Code - Default B0 50 BC 88 00 9F 02 Issuer Action Code - Default B0 50 BC 88 00 9F 04 Issuer Action Code - Denial 00 00 00 00 9F 05 Issuer Action Code - Online No No 00 90 00 9F 10 Issuer Action Code - Online No No No No No 9F 11 Issuer Code Table Index 01 State X xx xx xx xx xx xx xx xx xx State X xx State X xx x	Tag		
b8 Domestic cash trans. valid b7 Int'l cash transactions valid b6 Domestic goods valid b5 International goods valid b4 Domestic goods valid b2 ATMs valid b1 International services valid b2 ATMs valid b1 non-ATM terminals valid BYTE 2: b8 b8 Domestic cashback allowed b7<-International cashback allowed	9F 07	Application Usage Control	
b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b3 - International goods valid b3 - International services valid b7 - Internation Code - Denial b7 - Internatine trait b7			
b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid B7 08 Application Version Number 00 02 9F 00 Issuer Action Code - Default 80 70 BC 98 9F 01 Issuer Action Code - Denial 00 00 00 00 00 9F 01 Issuer Action Code - Denial 00 00 00 00 00 9F 01 Issuer Action Code - Denial 00 00 00 00 00 9F 11 Issuer Action Code - Online 80 70 BC 98 00 9F 11 Issuer Action Code - Denial 01 9F 12 Application Preferred Name 20 20 20 20 20 20 20 20 20 20 20 20 20 2			
b5 International goods valid b4 b4 Domestic services valid b3 International services valid b2 b7 International services valid b1 b7 b7 B7 B7 B7 b7 B7 B7 B0 b7 D1 Issuer Action Code - Default B0 50 BC 88 00 b7 D1 Issuer Action Code - Default B0 70 BC 98 00			
b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 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 Action Code - Online B0 70 BC 98 00 9F 11 Issuer Action Code - Online B0 70 BC 98 00 9F 11 Issuer Action Preferred Name 40 61 65 73 74 72 6F 20 20 20 20 20 9F 12 Application Preferred Name 20 20 20 - 'Maestro' 9F 23 Counter 1 Lower Limit [Mastercard] 00 9F 24 Application Transaction Counter (ATC) 9F 24 Application Transaction Counter (ATC) 9F 42 Application Currency Code 08 40 - USD 9F 42 Application Life Cycle Data [Mastercard] 00 9F 47 Transaction Log Format<			
b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Internation Code - Online b7 - Internation Data [M/Chip b7 + 1 Issuer Code Table Index b7 + 1 Issuer Code Table Index b7 + 1 Counter 1 Lower Limit [Mastercard] b7 + 1 Personal Identification Number (PIN) b7 + 7 Personal Identification Number (PIN) b7 + 7 Cryptogram Information Data (CID) b7 + 42 Application Cryptogram (AC) b7 + 42 Application Currency Code b7 + 42 Application Currency Code b7 + 42 Application Currency Code b7 + 42 Application Life Cycle Data [Mastercard] b7 + 7 Transaction Log Entry b7 + 7 Transaction Log Entry b7 + 7 Transaction Log Format b7 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 +			
b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 = Inter			
b1 - non-ATM terminals valid BYTE 2: b3 - Domestic cashback allowed b7 - International cashback allowed b7 - Internation Internation Data [M/Chip Advance]9F 10Issuer Action Code - Online B0 - 00B0 - 00 - 009F 11Issuer Code Table Index Advance]019F 12Application Preferred Name P - 20 20 20 20 20 20 20 20 20 20 20 20 20			
BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - Internation Data [M/Chip Advance] 9F 11 Issuer Action Code - Online PF 12 Application Data [M/Chip Application Preferred Name 01 9F 14 Counter 1 Lower Limit [Mastercard] 00 0 0 9F 14 Counter 1 Upper Limit [Mastercard] 00 0 9F 26 Application Cryptogram (AC) xx xx x x xx x x x x x x x x x x x x x			
b7 - International cashback allowed 9F 08 Application Version Number 00 02 9F 00 Issuer Action Code - Default B0 50 BC 88 00 9F 00 Issuer Action Code - Denial 00 00 00 00 00 9F 01 Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip xx 10 xx xx xx xx xx <td></td> <td></td> <td></td>			
9F 08 Application Version Number 00 02 9F 0D Issuer Action Code - Default B0 50 BC 88 00 9F 0D Issuer Action Code - Denial 00 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Action Data [M/Chip xx 10 xx xx xx xx			b8 - Domestic cashback allowed
String Type <			b7 - International cashback allowed
9F 0E Issuer Action Code - Denial 00 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip xx 10 xx	9F 08	Application Version Number	00 02
OF OF Issuer Action Code - Online B0 70 BC 98 00 9F OF Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Action Code - Online XX 10 XX	9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0F Issuer Action Code - Online B0 70 BC 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx	9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx			B0 70 BC 98 00
Advance] xx 9F 11 Issuer Code Table Index 01 9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 20 2			xx 10 xx
9F 11 Issuer Code Table Index 01 9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 20 20 20 20 20 20 20 20 20 20 20 20 20	01 10		xx xx xx xx xx xx *
9F 12 Application Preferred Name 4D 61 65 73 74 72 6F 20 20 20 20 20 20 20 20 20 20 20 20 20	9F 11		01
9F 14 Counter 1 Lower Limit [Mastercard] 00 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 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx xx x 9F 42 Application Currency Code 08 40 - USD 9F 44 Transaction Log Entry 0B 0A 9F 47 Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 36 02 9F 52 06 DF 3E 01 9F 21 03 36 02 9F 52 06 DF 3E 01 9F 21 03 36 02 9F 52 06 DF 3E 01 9F 21 03 36 02 00 00 00 00 00 00 00 00 00 00 00 00 00			
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 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) 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 36 02 9F 52 06 DF 3E 01 9F 21 03 36 02 9F 52 06 DF 3E 01 9F 21 03 36 02 9F 52 06 DF 3E 01 9F 21 03 36 02 9F 52 06 DF 3E 01 9F 21 03 36 02 9F 52 06 DF 3E 01 9F 21 03 36 02 9F 52 06 DF 3E 01 9F 21 03 36 00 00 00 00 00 00 00 00 00 00 00 00 00	51 12	Application Freieneu Name	
9F 17 Personal Identification Number (PIN) Try Counter 09 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 24 Application Cryptogram (AC) xx 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx xx xx * 9F 42 Application Currency Code 08 40 - USD 9F 44 Transaction Log Entry 0B 0A 9F 47 Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 36 02 9F 52 06 DF 3E 01 9F 21 03 7C 14 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 50 17 79 A0 00 00 00 00 00 00 00 00 00 00 00 00	9F 14	Counter 1 Lower Limit [Mastercard]	
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 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx xx * 9F 42 Application Currency Code 08 40 - USD 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 36 02 9F 52 06 DF 3E 01 9F 21 03 7C 14 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 50 17 79 A0 00 00 00 00 00 00 00 00 00 00 00 00	51 17	. , ,	
9F 26 Application Cryptogram (AC) xx	0 - 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 36 02 9F 52 06 DF 3E 01 9F 21 03 7c 14 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 50 17 79 A0 00 00 00 00 00 00 00 00 00 00 00 00 0			
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 36 02 9F 52 06 DF 3E 01 9F 21 03 7C 14 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 50 17 79 A0 00 00 00 00 00 00 00 00 00 00 00 00 00 00			
or oc Application Francescient (Free) 08 40 USD 9F 42 Application Currency Code 08 0A - USD 9F 4D Transaction Log Entry 0B 0A - 9F 2 06 5F 2A 02 9A 03 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 36 02 9F 52 06 DF 3E 01 9F 21 03 7C 14			
9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 36 02 9F 52 06 DF 3E 01 9F 21 03 7C 14 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 50 17 79 A0 00 00 00 00 4 30 60 00 00 00 00 00 00 00 00 00 00 00 00 00			
Of 4D Handbotton Log Entry 9F 9F 9F 02 06 5F 2A 02 9A 03 36 02 9F 27 01 9F 02 06 5F 2A 02 9A 03 36 02 9F 52 06 DF 32 01 9F 21 03 7C 14 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 <td></td> <td></td> <td></td>			
36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00			
7C 14 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 10	9F 4F	Transaction Log Format	
9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 50 17 79 A0 00 00 00 00 00 00 00 00 00 00 00 00 0			
C1 / L Application Life Cycle Data [Masteroard] A0 00 00 00 00 04 30 60 00 00 00 00 00 00 A0 00 00 00 00 00 00 00 00 00 00 00 00 0		Application Life Cycle Data [Mastercard]	-
00 00<	9772	Application Life Cycle Data [Mastercard]	
C3 Card Issuer Action Code (Contact) - Decline [M/Chip Advance] 00 00 00 C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 06 00 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 3F FB 00 C6 PIN Try Limit [M/Chip Advance] 09			00 00 00 00 00 80 00 88 01 06 A5 5A
Decline [M/Chip Advance] C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 06 00 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 3F FB 00 C6 PIN Try Limit [M/Chip Advance] 09			00 00 00 00 00 00 00 00 00 00 00 00
Decline [M/Chip Advance] C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 06 00 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 3F FB 00 C6 PIN Try Limit [M/Chip Advance] 09	C3	Card Issuer Action Code (Contact) -	00 00 00
C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 06 00 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 3F FB 00 C6 PIN Try Limit [M/Chip Advance] 09			
Default [M/Chip Advance] C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] C6 PIN Try Limit [M/Chip Advance]	C4		06 00 00
C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 3F FB 00 C6 PIN Try Limit [M/Chip Advance] 09	•		
Online [M/Chip Advance] C6 PIN Try Limit [M/Chip Advance]	C5		3F FB 00
C6 PIN Try Limit [M/Chip Advance] 09	00		
	<u>C6</u>		09
IC7 ICD011 Related Data Length 142	C7	CDOL1 Related Data Length	42
[Mastercard]	01	5	
C8 CRM Country Code [Mastercard] 08 40 - USA	<u>C8</u>		08 40 - USA
C9 Accumulator 1 Currency Code 08 40 - USD			
	69		
[Mastercard] CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00	<u> </u>		
CD Card Issuer Action Code (Contactless) - 06 50 00	CD		00 00
Default [M/Chip Advance]			
CE Card Issuer Action Code (Contactless) - 06 FB 00	CE		06 FB 00
Online [M/Chip Advance]			
CF Card Issuer Action Code (Contactless) - 00 00 00	CF		00 00 00
Decline [M/Chip Advance]			

Tag	Element name	Da	1.1									ard v	
D1	Accumulator 1 Currency Conversion									00			
	Table [Mastercard]		00	00	08	40	00	00	00	08	40	00	00
		00	~~										
D3	Additional Check Table [Mastercard]					F.F.		F.F.	F.F.	FF	F.F.	F.F.	F.F.
D5	Application Control [M/Chip Advance]					C6							
	Application Control [M/Chip Advance]		10	00	00	00	02						
D6	Default ARPC Response Code [M/Chip	00	10										
	Advance]		~~		~~~	~ ~ ~	~~						
D7	Application Control [M/Chip Advance]					C6		~~					
D9	Application File Locator (Contactless)					80							
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											
	[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
2	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											
	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						
5. 20	Advance]												
DF 24	MTA Currency Code [M/Chip Advance]	08	40										
DF 25	MTA NoCVM (Contact) [M/Chip	00	00	00	00	00	00						
D1 20	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										
12 10	Advance]												
DF 28	Accumulator 1 CVR Dependency Data	00	00	00									
20	(Contact) [M/Chip Advance]												
DF 29	Accumulator 1 CVR Dependency Data	00	00	00									
DF 29			50	50									
	(Contactless) [M/Chip Advance]	00	00	00									
DF 2A	Accumulator 2 CVR Dependency Data		00	00									
	(Contact) [M/Chip Advance]	00	00	00									
DF 2B	Accumulator 2 CVR Dependency Data	00	00	00									
	(Contactless) [M/Chip Advance]	00	00	0.0									
DF 2C	Counter 1 CVR Dependency Data		00	00									
	(Contact) [M/Chip Advance]												

Tag	Element name	Data Card v5.x
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 A00000004220302

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

4.11.8 Contact: Application Tag data, AID A00000004220302

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

Tag	Element name	Data Card v4.x
82	Application Interchange Profile	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported via External Auth command
		b2 - On device Cardholder verification NOT
		supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 22 03 02
87	Application Priority Indicator	04
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
00	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 05 42 03
	List	1F 03 00 00 00 00
94	Application File Locator (AFL)	08 01 01 00 08 03 03 00
9F 07	Application Usage Control	FF CO
		BYTE 1:
		b8 - Domestic cash trans. valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid b2 - ATMs valid
		b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00
9F 10	Issuer Application Data [M/Chip	xx 10 xx
	Advance]	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 11 9F 12	Application Preferred Name	55 53 20 53 61 76 69 6E 67 73 20 20
91 12		20 20 20 - 'US Savings'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 14 9F 17	Personal Identification Number (PIN)	09
31 17	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
	··· · ·	** ** ** ** ** ** **
9F 26	Application Cryptogram (AC)	80
9F 27	Cryptogram Information Data (CID)	
9F 36	Application Transaction Counter (ATC)	
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F
		36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14

Tag	Element name	Da	ta								Са	rd ۱	/4.x
9F 7E	Application Life Cycle Data [Mastercard]	04	10	0в	14	00	01	00	00	50	17	79	00
					00								
					00 00								
C3	Card Issuer Action Code (Contact) -		00		00	00	00	00	00	00	00	00	00
03	Decline [M/Chip Advance]		00	00									
C4	Card Issuer Action Code (Contact) -	06	50	00									
04	Default [M/Chip Advance]			•••									
C5	Card Issuer Action Code (Contact) -	06	FB	00									
00	Online [M/Chip Advance]												
C6	PIN Try Limit [M/Chip Advance]	09											
C7	CDOL1 Related Data Length	42											
-	[Mastercard]												
C8	CRM Country Code [Mastercard]	08	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									
	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	80	40	00	00	00	08	40	00	00
D3	Additional Check Table [Mastercard]		00	00	FF	FF	FF	FF	FF	FF	FF	FF	FF
00					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]				00								
D9	Application File Locator (Contactless)				00								
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											
DE 40	[M/Chip Advance]	01											
DF 12	Accumulator 1 Control (Contactless)	C1											
	[M/Chip Advance]	00											
DF 14	Accumulator 2 Control (Contact)	00											
DF 15	[M/Chip Advance] Accumulator 2 Control (Contactless)	00											
DE 15		00											
DF 16	[M/Chip Advance] 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]				09								
		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]												

Ter		Dete
Tag	Element name	Data Card v4.x
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip	00 00 00 00 00 00
2. 20	Advance]	
DF 24	MTA Currency Code [M/Chip Advance]	08 40
DF 25	MTA NoCVM (Contact) [M/Chip	00 00 00 00 00 00
5. 20	Advance]	
DF 26	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00
01 20	Advance]	
DF 27	Number Of Days Offline Limit [M/Chip	00 00
01 21	Advance]	
DF 28	Accumulator 1 CVR Dependency Data	00 00 00
01 20	(Contact) [M/Chip Advance]	
DF 29	Accumulator 1 CVR Dependency Data	00 00 00
01 20	(Contactless) [M/Chip Advance]	
DF 2A	Accumulator 2 CVR Dependency Data	00 00 00
01 211	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
0, 20	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
0, 20	(Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2F	Counter 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 30	Interface Enabling Switch [M/Chip	01
	Advance]	
DF 35	Security Limits Status (Contactless)	00
	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	00
	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
_	Advance]	
DF 40	Read Record Filter (Contactless)	00
_	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
	Advance]	

4.12 Test Card 12 - Discover, DI, 2-AID (U.S. Debit, Discover), Eng/Spa/Fre, USA, USD

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

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

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

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

4.12.2 Contact: Application Tag data, AID A0000001524010

Tag	Element name	Data Card v7.x
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	55 53 20 44 45 42 49 54 20 20 20 20
50		20 20 20 20 - 'US DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 01 38 D2 60 52 01
•		10 00 01 05 00 00 OF
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 01 38
5F 20	Cardholder Name	55 41 54 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	26 05 31
5F 25	Application Effective Date	XX XX XX
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E 65 73 66 72 - 'enesfr' (English,
		Spanish, French)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00 BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
84	Dedicated File (DF) Name	b8 - EMV Contactless NOT supported A0 00 00 01 52 40 10
87	Application Priority Indicator	01
80 80	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 34 03
8D	Card Risk Management Data Object List	91 OA 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
	List	
94	Application File Locator (AFL)	08 01 01 00 10 01 01 00 18 01 01 00
9F 07	Application Usage Control	FF 00
9F 08	Application Version Number	00 01
9F 0D	Issuer Action Code - Default	B0 68 C4 E8 00
9F 0E	Issuer Action Code - Denal	00 10 00 00 00
9F 0E	Issuer Action Code - Denial	

Tag	Element name	Da	ta								Са	rd v	7.x
9F 0F	Issuer Action Code - Online			C4	F8	00							
9F 10	Issuer Application Data [DPAS]	xx	06	xx	xx	хх	xx	хх	xx	*			
9F 17	Personal Identification Number (PIN)	03											
	Try Counter												
9F 26	Application Cryptogram (AC)	xx	хх	xx	xx	xx	xx	хх	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	0в	0A										
9F 4F	Transaction Log Format	9F	02	06	5F	2A	02	9A	03	9F	36	02	9F
	5	-		-	-		-				05		-
		-		-	-		9F	03	06	9F	53	80	9F
			04	9F	71	02							
9F 78	Application State [D-PAS]	01											
C1	Application Configuration Options [DPAS]	15	48										
C2	Issuer Life Cycle Data (ILCD) [DPAS]										00		
											00		
											00		
00	Ourseaux Occurreira Occides 4 (DDAO)				00		00	00	00	00	00	00	00
C3	Currency Conversion Codes 1 [DPAS]				01								
C4	Currency Conversion Codes 2 [DPAS]			00	01	00							
C5	Card Action Code - Denial [DPAS]		00										
C6	Card Action Code - Default [DPAS]		1F										
C7	Card Action Code - Online [DPAS]		1F										
D2	CRM Country Code [DPAS]		40										
D3	CRM Currency Code [DPAS]		40										
DF 11	PDOL Check Table - Profile (PDOLP) [DPAS]	01	09	41	00	00	41	A 0	11	FF	01	01	
DF 20	Transaction Profile Objects(TPO0)	00	18	00	08	01	01	00	10	01	01	00	18
	[DPAS]										00		
											00		
											00		
			00	00	00	00	00	00	00	00	00	00	00
DF 21	Transaction Profile Objects(TPO1)			00	08	01	01	00	10	01	01	00	18
	[DPAS]										00		-
											00		
											00		
				00	00	00	00	00	00	00	00	00	00
1		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)	Terminal supports CVM type	Fail			
4	No CVM required	Terminal supports CVM type	Fail			

B2 》

4.12.4	Contact: Application Tay data, AID At	
Tag	Element name	Data Card v7.x
42	Issuer Identification Number (IIN)	44 49 53 43 4F 56 45 52 20 44 45 42
50	Application Label	44 49 53 43 41 56 45 52 20 44 45 42 49 54 20 20 - 'DISCOVER DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 01 38 D2 60 52 01
01		10 00 01 05 00 00 0F
5A	Application Primary Account Number	60 11 97 37 00 00 01 38
	(PAN)	
5F 20	Cardholder Name	55 41 54 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 31 32 20 20
5F 24	Application Expiration Data	20 20 - 'USA DEBIT/Test Card 12' 26 05 31
5F 25	Application Expiration Date Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E 65 73 66 72 - 'enesfr' (English,
51 20		Spanish, French)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	10 00
		BYTE 1:
		b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
84	Dedicated File (DF) Name	b8 - EMV Contactless NOT supported A0 00 00 01 52 30 10
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
00	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 34 03
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04
	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 00 02 01 02 03 42 03 1E 03 1F 03
04	List	08 01 01 00 10 01 01 00 18 02 02 00
94	Application File Locator (AFL)	FF 00
9F 07 9F 08	Application Usage Control Application Version Number	00 01
9F 00 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 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	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
		66 04 9F 71 02
9F 78	Application State [D-PAS]	01
		1

4.12.4 Contact: Application Tag data, AID A0000001523010

Tag	Element name	Data Card v7.x
C1	Application Configuration Options [DPAS]	15 48
C2	Issuer Life Cycle Data (ILCD) [DPAS]	00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00 00
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
D2	CRM Country Code [DPAS]	08 40
D3	CRM Currency Code [DPAS]	08 40
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 00 01
		00 FE 1F 2E 1F 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
DF 21	Transaction Brofile Objects(TDO1)	E0 10 00 08 01 01 00 10 01 01 00 18
DFZI	Transaction Profile Objects(TPO1)	
	[DPAS]	
		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

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

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

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

Tag	Element name	Data Card v7.x
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	55 53 20 44 45 42 49 54 20 20 20 20 20 20 20 20 - 'US DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 01 38 D2 60 52 01 10 00 01 05 00 00 0F
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 01 38
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	26 05 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'

Tag	Element name	Data Card v7.x	
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 via	
		EXTERNAL AUTH command	
0.4	Dedicated File (DF) Name	b1 - Combined DDA / GEN AC NOT supported A0 00 00 01 52 40 10	
84	Dedicated File (DF) Name	01	
87	Application Priority Indicator		
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 00 02 03 1F 03	
	List		
94	Application File Locator (AFL)	08 01 02 00 18 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 01	
9F 10	Issuer Application Data [DPAS CL]	xx 15 xx xx xx xx xx xx xx xx *	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List	9F 66 04 9F 02 06 9F 03 06 9F 1A 02	
51 00	(PDOL)	5F 2A 02 9A 03 9C 01 9F 37 04	
9F 4D	Transaction Log Entry	0B 0A	
-		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 71	Card Processing Requirements [DPAS]	00 89	
0		BYTE 2 (Permanent Data):	
		b8 - Do switch to other interface if unable to	
		process online	
		b7 - Do NOT process online if CDA failed	
		b6 - Do NOT decline/switch other interface if	
		CDA failed b5 - Issuer Update Processing NOT supported	
		b4 - Do process online if card expired	
		b3 - Do NOT decline if card expired	
		b2 - CVM Fallback to Signature NOT allowed	
05 70	Application State [D. DAS]	b1 - CVM Fallback to 'No CVM' allowed 01	
9F 78	Application State [D-PAS]		
BF 51	Contactless D-PAS MS and ZIP Default	82 02 00 00 94 04 08 01 01 00	
	Profile		
C0	Contactless Application Configuration	03 88	
	Options (CL-ACO)		
C2	Issuer Life Cycle Data (ILCD) [DPAS]	00 00 00 00 00 00 00 00 00 00 00 00	
		00 00 00 00 00 00 00 00 00 00 00 00	
		00 00 00 00 00 00 00 00 00 00 00 00	
00		00 00 00 00 00 00 00 00 00 00 00 00 00	
C3	Currency Conversion Codes 1 [DPAS]	08 40 00 01 00	
C4	Currency Conversion Codes 2 [DPAS]	08 40 00 01 00	
C8	Lower Consecutive Offline Amount	00 00 00 00 00	
	(LCOA) Limit [DPAS]		
C9	Upper Consecutive Offline Amount Limit	00 00 00 00 00 00	
	(UCOA) [DPAS]		
CA	Single Transaction Amount (STA) Limit	00 00 00 00 00 00	
	[DPAS]		
СВ	Lower Consecutive Offline Limit (LCOL)	00	
	LIDPASI		
0.0	[DPAS]	00	
CC	Upper Consecutive Offline Transaction Limit (UCOL) [DPAS]	00	

Tag	Element name	Data Card v7.x
CD	Number of Consecutive Offline	00
-	Transactions (NCOT) [DPAS]	
CE	Cumulative Offline Amount [DPAS]	00 00 00 00 00 00
D1	Offline Balance [DPAS]	00 00 00 00 00 00
D2	CRM Country Code [DPAS]	08 40 - USA
D3	CRM Currency Code [DPAS]	08 40 - USD
D4	CVM-Accumulator [DPAS]	00 00 00 00 00 00
D5	CVM-Cum limit 1	00 00 00 00 00 00
D6	CVM-Cum limit 2	00 00 00 00 00 00
D7	CVM-STA limit 1	00 00 00 00 00 00
D8	CVM-STA limit 2	00 00 00 00 00 00
D9	CVM-Counter	00
DA	CVM-Cons limit 1	00
DB	CVM-Cons limit 2	00
DE	Counter and Accumulator Control	C1 01 09 01 01 00
	Options (CACO) [D-PAS]	
DF 11	PDOL Check Table - Profile (PDOLP)	01 09 41 00 00 41 A0 11 FF 01 01
	[DPAS]	
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 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00 00
DF 30	CRM-CAC Switch Interface [D-PAS]	00 00 00
DF 31	CRM-CAC Denial [D-PAS]	00 00 00
DF 32	CRM-CAC Online [D-PAS]	C8 7E FF
DF 33	CRM-CAC Default [D-PAS]	98 3E EB
DF 34	CVM Card Action Codes - Online	40 80
DF 35	CVM Card Action Codes - Signature	00 80
DF 40	CL-Accumulator	00 00 00 00 00 00
DF 41	CL-Cum Limit	00 00 00 00 00 00
DF 42	CL-STA	00 00 00 00 00 00
DF 43	CL-Counter	00
DF 44	CL-Cons Limit	00
L		* Tag value changes with card usage

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

Tag	Element name	Data Card v7.x
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	44 49 53 43 4F 56 45 52 20 44 45 42 49 54 20 20 - 'DISCOVER DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 01 38 D2 60 52 01 10 00 01 05 00 00 0F
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 01 38
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	26 05 31
5F 25	Application Effective Date	XX XX XX
5F 28	Issuer Country Code	08 40 - USA

Tag	Element name	Data Card v7.x		
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 via		
		EXTERNAL AUTH command		
		b1 - Combined DDA / GEN AC NOT supported		
84	Dedicated File (DF) Name	A0 00 00 01 52 30 10		
87	Application Priority Indicator	02		
94	Application File Locator (AFL)	08 01 02 00		
9F 07	Application Usage Control	FF 00		
9F 08	Application Version Number	00 01		
9F 10	Issuer Application Data [DPAS CL]	xx 15 xx xx xx xx xx xx xx xx *		
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *		
9F 27	Cryptogram Information Data (CID)	80		
9F 36	Application Transaction Counter (ATC)	xx xx *		
9F 38	Processing Options Data Object List	9F 66 04 9F 02 06 9F 03 06 9F 1A 02		
	(PDOL)	5F 2A 02 9A 03 9C 01 9F 37 04		
9F 4D	Transaction Log Entry	OB OA		
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F		
		34 03 9F 52 06 9F 1A 02 95 05 9C 01		
		8A 02 9F 37 04 9F 03 06 9F 53 08 9F 66 04 9F 71 02		
9F 71	Card Processing Requirements [DPAS]	00 8B		
51 7 1		BYTE 2 (Permanent Data):		
		b8 - Do switch to other interface if unable to process online		
		b7 - Do NOT process online if CDA failed		
		b6 - Do NOT decline/switch other interface if		
		CDA failed		
		b5 - Issuer Update Processing NOT supported b4 - Do process online if card expired		
		b3 - Do NOT decline if card expired		
		b2 - CVM Fallback to Signature allowed		
		b1 - CVM Fallback to 'No CVM' allowed		
9F 78	Application State [D-PAS]	01		
BF 51	Contactless D-PAS MS and ZIP Default	82 02 00 00 94 04 08 01 01 00		
	Profile			
C0	Contactless Application Configuration	03 88		
	Options (CL-ACO)			
C2	Issuer Life Cycle Data (ILCD) [DPAS]	00 00 00 00 00 00 00 00 00 00 00 00 00		
		00 00 00 00 00 00 00 00 00 00 00 00 00		
		00 00 00 00 00 00 00 00 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		
C4 C8	Lower Consecutive Offline Amount	00 00 00 00 00 00		
	(LCOA) Limit [DPAS]			
C9	Upper Consecutive Offline Amount Limit	00 00 00 00 00 00		
00	(UCOA) [DPAS]			
CA	Single Transaction Amount (STA) Limit	00 00 00 00 00 00		
	[DPAS]			
L	[-···•]			

CB Lower Consecutive Offline Limit (LCOL) [DPAS] 00 CC Upper Consecutive Offline Transaction Limit (UCOL) [DPAS] 00 CD Number of Consecutive Offline Transactions (NCOT) [DPAS] 00	Tog	Element nome	
IDPAS IDPAS 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 D1 Offline Balance [DPAS] 08 40 -USA 00 D3 CRM Currency Code [DPAS] 08 40 -USA 00 D4 CVM-Accumulator [DPAS] 00 <t< td=""><td>Tag</td><td>Element name</td><td>Data Card v7.x</td></t<>	Tag	Element name	Data Card v7.x
Limit (UCOL) [DPAS] Image: consecutive offline 00 Transactions (NCOT) [DPAS] 00 <td< td=""><td></td><td>[DPAS]</td><td></td></td<>		[DPAS]	
CD matrix Number of Consecutive Offline Transactions (NCOT) [DPAS] 00	CC		00
CE Cumulative Offline Amount [DPAS] 00	CD	Number of Consecutive Offline	00
Dit Offline Balance [DPAS] 00	CE.		
D2 CRM Country Code [DPAS] 08 40 USA D3 CRM Currency Code [DPAS] 08 40 USD D4 CVM-Accumulator [DPAS] 00 00 00 00 D5 CVM-Cum limit 1 00 00 00 00 00 D6 CVM-Cum limit 2 00 00 00 00 00 D7 CVM-STA limit 1 00 00 00 00 00 00 D8 CVM-Counter 00 00 00 00 00 00 00 00 D8 CVM-Cons limit 2 00<			
D3 CRM Currency Code [DPAS] 08 40 -USD D4 CVM-Accumulator [DPAS] 00			
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			
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 00 DF 11 PDOL Check Table - Profile (PDOLP) [DPAS] 01 09 41 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 40 40 00 </td <td></td> <td></td> <td></td>			
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 40 11 FF 01 01 DF 21 Transaction Profile Objects(TPO1) [DPAS] 00 <			
DE Crim out of and Accumulator Control Options (CACO) [D-PAS] C1 01 09 01 01 00 DF 11 PDOL Check Table - Profile (PDOLP) [DPAS] 01 09 01 00 04 1A0 11 FF 01 01 DF 21 Transaction Profile Objects(TPO1) [DPAS] 40 40 00 <td></td> <td></td> <td></td>			
DF 10 Options (CACO) [D-PAS] DF 11 PDOL Check Table - Profile (PDOLP) [DPAS] 01 09 41 00 00 41 A0 11 FF 01 01 DF 21 Transaction Profile Objects(TPO1) [DPAS] 40 40 00 10 00 08 01 02 00 00 00 00 00 00 00 00 00 00 00 00 00			
DF 21 Transaction Profile Objects(TPO1) [DPAS] 40 40 00 10 00 08 01 02 00 00 00 00 00 00 00 00 00 00 00 00 00		Options (CACO) [D-PAS]	
[DPAS] 00	DF 11	· · · · · · · · · · · · · · · · · · ·	01 09 41 00 00 41 A0 11 FF 01 01
DF A0j 00 00 00 00 00 00 00 00 00 00 00 00 00	DF 21	Transaction Profile Objects(TPO1)	
br 30 CRM-CAC Switch Interface [D-PAS] 00		[DPAS]	
br 30 CRM-CAC Switch Interface [D-PAS] 00			
br 30 CRM-CAC Switch Interface [D-PAS] 00			
br 30 CRM-CAC Switch Interface [D-PAS] 00			
br 30 CRM-CAC Switch Interface [D-PAS] 00			00 00 00 00 00 00 00 00 00 00 00 00
br 30 CRM-CAC Switch Interface [D-PAS] 00			
DF 30 CRM-CAC Switch Interface [D-PAS] 00 00 00 00 00 04 02 DF 31 CRM-CAC Denial [D-PAS] 00			
DF 30 CRM-CAC Switch Interface [D-PAS] 00 00 00 00 00 DF 31 CRM-CAC Denial [D-PAS] 00 00 00 00 00 DF 32 CRM-CAC Online [D-PAS] C8 7E FF FF DF 33 CRM-CAC Default [D-PAS] 98 3E EB FF DF 34 CVM Card Action Codes - Online 40 80 FF FF DF 35 CVM Card Action Codes - Signature 00 80 FF FF DF 40 CL-Accumulator 00 00 00 00 00 DF 41 CL-Cum Limit 00 00 00 00 00 00 DF 43 CL-Counter 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 DF 41 CL-Cum Limit 00 00 00 00 00 DF 42 CL-STA 00 00 00 00 00 00 DF 43 CL-Counter 00 00 00 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 00 00 00 00 00 DF 40 CL-Accumulator 00 00 00 00 00 00 00 DF 41 CL-Cum Limit 00 00 00 00 00 00 00 DF 42 CL-STA 00 00 00 00 00 00 00 DF 43 CL-Counter 00 00 00	DF 30	CRM-CAC Switch Interface [D-PAS]	
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 00 DF 41 CL-Cum Limit 00 00 00 00 00 00 DF 42 CL-STA 00 00 00 00 00 DF 43 CL-Counter 00			00 00 00
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 00 DF 41 CL-Cum Limit 00 00 00 00 00 00 DF 42 CL-STA 00 00 00 00 00 DF 43 CL-Counter 00	_	· · ·	C8 7E FF
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 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 00 00 00 00 00			98 3E EB
DF 35 CVM Card Action Codes - Signature 00 80 DF 40 CL-Accumulator 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 00 00 00 00 00			40 80
DF 40 CL-Accumulator 00			
DF 41 CL-Cum Limit 00 00 00 00 00 00 DF 42 CL-STA 00 </td <td></td> <td>Ŭ</td> <td></td>		Ŭ	
DF 42 CL-STA 00 00 00 00 00 00 DF 43 CL-Counter 00			
DF 43 CL-Counter 00			
			00
	DF 44	CL-Cons Limit	00

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

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

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

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

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

4.13.2 Contact: Application Tag data, AID A0000001524010

Tag	Element name	Data Card v6.x
42	Issuer Identification Number (IIN)	60 11 97
50	Application Label	55 53 20 44 45 42 49 54 20 20 20 20
50		20 20 20 20 - 'US DEBIT'
57	Track 2 Data [Discover]	60 11 97 37 00 00 01 20 D2 60 52 01
0.		10 00 01 92 00 00 OF
5A	Application Primary Account Number (PAN)	60 11 97 37 00 00 01 20
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 31 33 20 20
		20 20 - 'USA DEBIT/Test Card 13'
5F 24	Application Expiration Date	26 05 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
5F 55	Issuer Country Code (alpha2 format)	55 53 - 'US'
82	Application Interchange Profile	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 01 52 40 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 34 03
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 03 1F 03
	List	00 00 00
94	Application File Locator (AFL)	08 01 01 00 10 01 02 00 18 01 01 00
9F 07	Application Usage Control	AB 00
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 xx *

Tag	Element name	Data Card v6.x
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 17	Personal Identification Number (PIN) Try Counter	03
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 1A 02 95 05 9C 01 8A 02
9F 78	Application State [D-PAS]	01
C1	Application Configuration Options [DPAS]	15 40
C2	Issuer Life Cycle Data (ILCD) [DPAS]	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
D2	CRM Country Code [DPAS]	08 40 - USA
D3	CRM Currency Code [DPAS]	08 40 - USD
DF 11	PDOL Check Table - Profile (PDOLP) [DPAS]	01 09 41 00 00 41 A0 00 0F 01 01
DF 20	Transaction Profile Objects(TPO0) [DPAS]	00 18 00 08 01 01 00 10 01 02 00 18 01 01 00 <t< td=""></t<>

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 A	
Tag	Element name	Data Card v6.x
50	Application Label	44 4E 41 - 'DNA'
57	Track 2 Data [Discover]	40 00 00 00 00 00 00 28 D2 51 22 01 56 78 00 00 00 35 1F
5A	Application Primary Account Number	40 00 00 00 00 00 00 28
57	(PAN)	
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
0. 20		73 74 20 43 61 72 64 20 31 34 20 20
		20 20 - 'USA DEBIT/Test Card 14'
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile	18 00 BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported
		b1 - Combined DDA / GEN AC NOT supported BYTE 2:
		b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 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
0.0		9F 34 03
8D	Card Risk Management Data Object List	91 OA 8A 02 95 05 9F 37 04
8E	2 (CDOL2) Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 02 01 02 04
o⊏	List	02 03 1F 03
94	Application File Locator (AFL)	08 01 01 00 18 01 02 01
9 4 9F 07	Application Usage Control	FF 00
51 07	Application Usage Control	BYTE 1:
		b8 - Domestic cash transactions valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1- Terminals other than ATMs valid
		BYTE 2: b8 - Domestic cashback NOT allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 01
9F 0D	Issuer Action Code - Default	F0 40 E4 28 00
9F 0E	Issuer Action Code - Denial	00 10 00 00 40
9F 0F	Issuer Action Code - Online	F0 68 FC F8 00
9F 10	Issuer Application Data [DPAS]	xx xx A0 xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	44 65 62 69 74 - 'Debit'
9F 17	Personal Identification Number (PIN)	03
	Try Counter	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27 9F 36	Cryptogram Information Data (CID) Application Transaction Counter (ATC)	80 xx xx *

4.14.2 Contact: Application Tag data, AID A0000006200620

Tag	Element name	Data	Card v6.x
9F 4D	Transaction Log Entry	OB OA	Card VO.X
9F 4F	Transaction Log Format	51 05 51 52 00 51 11 02 55	36 02 9F 05 9C 01 53 08 9F
		66 04 9F 71 02 9F 6C 02	
9F 78	Application State [D-PAS]	00	
C1	Application Configuration Options [DPAS]	15 60	
C2	Issuer Life Cycle Data (ILCD) [DPAS]	00 00<	00 00 00 00 00 00 00 00 00 00 00 00
C3	Currency Conversion Codes 1 [DPAS]	08 40 00 00 02	00 00 00
C4	Currency Conversion Codes 2 [DPAS]	08 40 00 00 02	
D0	Issuer Application Data ObjectList (IADOL) [DPAS]		
D2	CRM Country Code [DPAS]	08 40 - USA	
D3	CRM Currency Code [DPAS]	08 40 - USD	
DF 20	Transaction Profile Objects(TPO0) [DPAS]	00 00<	02 01 00 00 00 00 00 00 01 00 00 00 00 00 00

4.15 Test Card 15 - Interac, DI, 1-AID (Interac), English, CAN, CAD

A Dual Interface (Contact+Contactless), 1-AID(Interac) Interac (Canadian) debit card with an Issuer Country Code of 'Canada' and Currency Code of 'CAD'.

All Merchant Type Indicator (MTI) Limits (tags 9F52, 9F54, 9F55, 9F56, 9F57) set to \$50.01 The recommended transaction amount to generate a host approval is \$30.00.

4.15.1 Contact: CVM List - Interac, AID A0000002771010

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

4.15.2 Contact: Application Tag data, AID A0000002771010

Tag	Element name	Data Card v7.x
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'
57	Track 2 Equivalent Data	00 12 03 00 00 00 00 03 D2 81 22 20 08 97 74 00 00 00 1F
5A	Application Primary Account Number (PAN)	00 12 03 00 00 00 00 03
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65 73 74 20 43 61 72 64 20 31 35 20 20 20 20 - 'USA DEBIT/Test Card 15' 20 2
5F 24	Application Expiration Date	28 12 31

В	2	≫

Tag Element name Data Card V7.x SF 26 Application Effective Date xx xx x SF 26 Janguage Preference 65 6E 66 72 - 'entf' (English, French) SF 30 Service Code 02 20 SF 34 Application PAN Sequence Number 01 SF 56 Issuer County Code (alpha3 formal) 43 41 45 - 'CAN' 82 Application Interchange Profile 19 00 B7 35 Gene County Code (alpha3 formal) 43 41 45 - 'CAN' 82 Application Interchange Profile 19 00 B7 40 Card Risk management Data Object List 17 - Offline SDA NOT supported 10 Card Risk Management Data Object List 16 - Combined DDA / GEN AC supported 84 Dedicated File (DF) Name 40 0 0 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
5F 2B Issuer Country Code 01 24 - CAN 5F 3D Service Code 66 66 66 72 - 'enfr' (English, French) 5F 3A Application PAN Sequence Number 01 5F 35 Issuer Country Code (alpha3 format) 34 41 48 - 'CAN' 82 Application Interchange Profile 19 00 BYTE 1: 57 - Offline SDA NOT supported 65 - Offline DDA NOT supported 56 - Offline DDA NOT supported 64 - Terminal risk mgmt to be performed 53 - Issuer authentication NOT supported 7 - Offline SDA NOT supported 57 - Offline DDA / GEN AC supported 84 Dedicated File (DF) Name A0 00 00 02 77 10 10 87 Application Priority Indicator 01 80 Card Risk Management Data Object List 97 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9F 42 08 9F 42 03 81 CardRisk Management Data Object List 20 00 00 00 00 00 00 00 00 00 00 00 00 0			
5F 20 Language Preference 65 68 6 72 - 'enfr' (English, French) SF 30 Service Code 02 20 SF 34 Application PAN Sequence Number 11 SF 35 Issuer Country Code (alpha3 format) 43 41 48 - 'CAN' 82 Application Interchange Profile 57 66 State Country Code (alpha3 format) 57 67 Service Code 57 70 (Mine SDA NOT supported b6 - Offline DDA NOT supported b6 - Cardholder verification supported b1 - Combined DDA / GEN AC supported b1 - Combine Combin	-		
5F 30 Service Code 02 20 5F 34 Application PAN Sequence Number 01 5F 56 Issuer Country Code (alpha3 format) 43 41 42 - 'CAN' 82 Application Interchange Profile 19 00 82 Application Interchange Profile 19 00 82 Application Interchange Profile 19 00 84 Dedicated File (DF) Name A0 00 00 02 77 10 10 87 Application Priority Indicator 01 80 Card Risk Management Data Object List 91 02 65 97 03 06 97 13 0 497 45 02 80 Card Risk Management Data Object List 91 00 88 02 95 05 97 37 04 97 42 08 91 0A 80 02 95 05 97 37 04 97 42 08 20 03 00 00 00 00 00 00 00 00 00 00 00 00			
35 34 Application PAN Sequence Number 01 5F 34 Application PAN Sequence Number 43 41 42 -CAN' 82 Application Interchange Profile 10 00 BYTE 1: 57 56 82 Application Interchange Profile 57 00 07 00 07 00 07 00 07 04 97 04 97 04 97 04 97 04 97 04 97 04 97 07 00			
3 5 7 66 Issuer Country Code (alpha 3 format) 43 41 4E - 'CAN' 82 Application Interchange Profile 19 00 82 Application Interchange Profile 19 00 82 Application Interchange Profile 19 00 84 Decicated File (DF) Name 40 00 00 27 71 0 10 87 Application Priority Indicator 90 87 Application Priority Indicator 91 02 05 97 03 06 97 11 02 95 05 57 20 02 97 42 08 97 44 08 97 45 02 97 42 08 97 42 08 97 42 08 97 42 08 97 40 08 97 44 08 97 45 02 97 42 08 97 40 08 97 44 08 97 45 02 97 42 08 97 40 08 97 44 08 97 45 02 97 42 08 97 40 08 97 44 08 09 16 03 01 03 02 03 8D Card Risk Management Data Object List 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 97 61 00 00 00 00 00 00 00 00 00 00 00 00 00			
82 Application Interchange Profile 19 00 BYTE 1: 07 - Offline SDA NOT supported b6 - Offline DDA NOT supported b6 - Card Not b6 performed b3 - Issuer authentication NOT supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC supported / GEN AC supported b1 -			
D2 Typincation meterizinger Frome BTTE 1: b7 - Offline SDA NOT supported b5 - Carchiolder verification supported b5 - Carchiolder verification supported b3 - Issuer authentication NOT supported b3 - Supported b3 - Supported DA / GEN AC supported b3 - Supported b3 - Carchined DA / GEN AC supported b3 - Supported b3 - Carchined DA / GEN AC supported b3 - Supported b3 - Carchined DA / GEN AC supported b3 - Supported b3 - Carchined DA / GEN AC supported b3 - Supported b3 - Carchined DA / GEN AC supported b3 - Supported b3 - Carchined DA / GEN AC supported b3 - Supported b3 - Carchined Management Data Object List 2 (CDOL2) 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 7 04 9F 45 02 9F 42 08 9F 34 03 8E Card Risk Management Data Object List 2 (CDOL2) 9F 02 06 9F 13 03 06 00 00 00 00 00 00 00 00 00 00 00 00			
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b6-Offline DDA NOT supported b5-Cardholder verification supported b3-Issuer authentication NOT supported b3-Issuer authentication NOT supported b3-Issuer authentication NOT supported b3-Issuer authentication NOT supported b3-Card Nisk Management Data Object List 1 (CDOL1) 87 Application Priority Indicator 01 80 Card Risk Management Data Object List 2 (CDOL2) 97 02 06 9F 03 06 9F 14 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 00 00 00 00 00 00 00 00 00 00 00 00 00			
bb - Cardholder verification supported b4 - Terminal risk mymt to be performed b3 - Issuer authentication NOT supported b3 84 Dedicated File (DF) Name A0 00 00 00 27 10 10 87 Application Priority Indicator 01 01 00 02 77 01 97 02 05 9F 30 05 9F 37 04 9F 40 00 00 00 00 04 97 04 9F 40 90 04 97 04 9F 40 00 </td <td></td> <td></td> <td></td>			
bd - Terminal risk mgmt to be jreiformed b3 - Issuer authentication NOT supported BYTE 2: b8 - EMV Contactless NOT supported BYTE 2: b8 - Domestic cashback NOT allowed BYTE 2: b8 - Domestic cashback NOT allowed			
bit - Combined DDA / GEN AC supported BYTE 2: b8 - EMV Contactless NOT supported 84 Dedicated File (DF) Name A0 00 00 02 77 10 10 87 Application Priority Indicator 01 80 Card Risk Management Data Object List 1 (CDCl.1) 9F 02 06 9F 30 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 4C 08 2F 4C 08 9F 34 03 8D Card Risk Management Data Object List 2 (CDCl.2) 9F 4C 08 9F 34 03 8E CardRisk Management Data Object List 2 (CDCl.2) 10 A 8A 02 95 05 9F 37 04 9F 4C 08 20 03 8F CardRisk Management Data Object List 2 (CDCl.2) 00 00 00 00 00 00 00 00 00 04 03 01 03 02 03 8F CardRisk Management Data Object List 2 (CDCl.2) 00 00 00 00 00 00 00 00 00 00 04 03 01 03 02 03 8F CardRisk Management Data Object List 2 (CDCl.2) 07 8F CardRisk Management Data Object List 2 (CDCl.2) 07 8F CardRisk Management Data Object Mist 2 (CDCl.2) 07 8F CardRisk Management Public Key Index 07 90 Issuer Public Key Certificate 7E 37 FF 15 A4 88 1C 32 6D 5F 61 E4 D7 4A 00 39 24 76 05 74 A4 09 55 38 02 00 50 00 20 80 38 P3 A CE 0F 74 A 75 00 64 02 80 31 77 46 28 27 26 70 00 40 28 77 86 70 85 9 98 A4 26 15 08 60 20 03 37 74 CB 59 99 24 45 61 50 20 00 22 FF 97 08 59 99 24 45 61 50 20 00 21 FF 51 30 30 37			b4 - Terminal risk mgmt to be performed
BYTE 2: b8 - EMV Contactless NOT supported 84 Dedicated File (DF) Name A0 0 00 00 27 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 24 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) 9F 4C 08 9F 34 03 9F 4C 08 07 9F 37 04 9F 4C 08 9F 4C 08 07 9F 37 04 9F 4C 08 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 04 03 01 03 02 03 03 01 03 02 03 8F Certification Authority Public Key Index 07 7F 15 A4 88 1C 32 6D 5F 61 E4 D7 4A 00 39 24 76 D5 44 80 B9 16 92 4A 70 65 B7 B3 40 F3 1F A4 66 84 E1 99 CE 82 DA 3F F6 CC 77 4A 13 D0 08 CB 46 7B 87 1C 9E 00 40 28 FA 44 D9 95 53 80 CD 55 07 P 9F 0 C 8D 03 BF 9A CE 0F FA FA 8B A6 B4 0C 28 FA 44 D9 55 38 00 E5 50 F 9F 9F 0 CE 80 3B F 9A CE 0F FA FA 8B A6 B4 0C 21 87 A4 25 B 66 27 22 BD FC 5C 7D 89 0C 71 5F 54 67 4F CE B2 0B 5E 02 80 CE 87 70 B 52 59 FA A0 84 94 27 8F 75 83 64 A9 9E F8 77 47 25 66 A1 74 2F 08 BB C6 24 26 9C 34 80 22 EF 75 83 84 A9 9E 78 77 47 25 66 A1 75 28 44 A9 9E 78 77 47 25 66 11 75 59 C7 78 05 44 35 09 9F 71 CE 87 38 54 A9 2E F8 77 74 72 56 61 175 59 C7 78 00 A4 94 CE 87 78 B 73 B A3 45 E0 78 80 77 65 07 80 02 72 A 94 Application File Locator (AFL) 08 10 40 01 10 11 01 18 01 40 11 9F 00 BYTE 1: B5 -Domestic goods valid b5 - International sorter than ATMs valid BYTE 1: B6 -Domestic goods valid b5 - International sorter than ATMs valid BYTE 2:			
B8 EMV Contactless NOT supported 84 Dedicated File (DF) Name A0 00 00 02 77 10 10 87 Application Priority Indicator 01 8C Card Risk Management Data Object List 1 (CDOL1) PF 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 4C 08 9F 4C 08 9F 34 03 8D Card Risk Management Data Object List 2 (CDOL2) P1 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 00 04 03 01 03 20 03 8F Certification Authority Public Key Index 7F 37 FF 15 A4 88 1C 32 6D 5F 61 E4 07 4A 00 33 24 76 D5 44 80 08 16 92 4A 70 65 8F 33 40 F3 1F A4 86 84 E1 99 CE 82 DA 3F F6 0C 77 4A 13 D0 08 C8 46 78 87 1 05 9C 04 02 EF 74 48 08 9F 16 92 4A 70 65 8F 35 0F 9F 0C 88 03 B3 F 9A CE 0F FA FR 8B A6 B4 0C F9 69 9A 72 AF C9 D1 8C 56 25 A0 0B B8 0E E0 38 GE 57 22 BD FC 5C 7D 89 0C 71 5F 54 GF 4F CE E2 0B 5E 0E 80 E8 77 08 59 73 27 359 AA 00 A4 94 C5 87 BB 32 F7 33 54 A9 2E F8 77 47 25 66 A1 A7 24 F2 0B BB C8 24 26 57 18B 32 F3 36 A1 DA 48 46 38 14 16 A1 0F7 77 E5 53 C7 B8 05 44 33 D3 99 97 C1 5E 34 34 E0 86 A7 B6 7F 6B B0 22 FE 78 38 55 O7 B8 05 44 33 D3 99 97 C1 5E 34 34 E0 86 A7 B6 7F 6B B0 22 6E 78 83 D3 A9 97 C1 5E 34 34 E0 86 A7 B6 7F 6B B0 22 6E 78 83 D3 A9 97 C1 5E 34 34 E0 86 A7 B6 7F 6B B0 22 A1 25 F5 FE 33 A1 DA 5B 88 FF FE 33 A1 DA 5B 7F 6B 7F 6B B0 22 A1 75 F5 35 E0 DC 22 F1 23 B1 FA 23 30 A1 AA 13 AD 31 E7 F 00 BF 7C B8 D0 24 01 01 01 01 01 01 01 01 01 01 01 01 01			
84 Dedicated File (DF) Name A0 00 00 02 7 10 10 87 Application Priority Indicator 01			
87 Application Priority Indicator 01 8C Card Risk Management Data Object List 1 (CDOL1) 9F 02 96 97 03 06 9F 14 02 95 05 5F 8D Card Risk Management Data Object List 2 (CDOL2) 91 0A 0A 02 95 05 9F 37 04 9F 4C 08 8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 00 00 04 03 01 03 8E Cardholder Verification Authority Public Key Index 07 7 7 F 15 A4 88 1C 32 6D 5F 61 64 02 03 02 03 02 03 02 03 02 03 02 03 01 03 02 03 04 04 03 91 04 03 04 04 05 <td>0.4</td> <td>Dedicated File (DE) Name</td> <td></td>	0.4	Dedicated File (DE) Name	
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8D Card Risk Management Data Object List 91 0A 8A 02 95 05 9F 37 04 9F 4C 08 2 (CDOL2) 2 Card Risk Management Data Object List 00			
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8E Cardholder Verification Method (CVM) List 00 00 00 00 00 00 00 00 00 01 03 01 03 8F Certification Authority Public Key Index 07 7E 37 FF 15 A4 88 1C 32 6D 5F 61 E4 90 Issuer Public Key Certificate 7E 37 FF 15 A4 88 1C 32 6D 5F 61 E4 90 Issuer Public Key Certificate 7E 37 FF 15 A4 88 1C 32 6D 5F 61 E4 D7 A4 10 00	8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
List 02 03 BF Certification Authority Public Key Index 07 90 Issuer Public Key Certificate 7E 37 FF 15 A4 88 1C 32 6D 5F 6 1E 90 Issuer Public Key Certificate 7E 37 FF 15 A4 88 1C 32 6D 5F 6 1E 44 80 16 92 4A 00 39 24 76 D5 44 80 B9 16 92 4A 70 65 B7 B3 40 F3 1FA 48 68 4E 11 99 CE 20 55 06 77 4A 10 35 53 80 D5 50 79 F0 80 38 F9 AC CF 7F 70 80 21 36 77 45 54 67 74 CE 80 21 37 70 74 25 66			
List 07 90 Issuer Public Key Certificate 7 7 37 FF 15 A4 88 1C 32 6D 5F 61 E4 90 Issuer Public Key Certificate 7 7 75 37 FF 15 A4 88 1C 32 6D 5F 61 E4 90 Issuer Public Key Certificate 74 A0 39 24 76 55 44 80 59 16 24 A7 65 57 15 A4 86 84 E1 99 CE 82 DA 3F 60 C7 74 13 D0 0B CE 67 72 DE C5 C7 D8 C7 T5 54 40 28 F7 70 55 99 F7 A5 23 D8 B8 E E D3 28 D8 28 D8 28 F7	8E	Cardholder Verification Method (CVM)	
90 Issuer Public Key Certificate 7E 37 FF 15 A4 88 1C 32 6D 5F 61 E4 90 Issuer Public Key Certificate 77 AA 00 39 24 76 D5 44 80 B9 16 92 4A 70 65 B7 B3 40 F3 1F A4 86 84 E1 9 CE 82 DA 3F F6 0C 77 4A 15 D0 D0 C8 46 7B 87 FF 15 A4 86 B4 CF 77 4A 15 D0 D0 C8 46 7B C6 C7 7A D3 D0 D2 P3 D3 D3 P3 D2 D3 B3 P3 D3		List	02 03
D7 4A 00 32 47 05 57 13 14 86 84 11 90 CE 22 A3 FF 0 C7 74 13 D0 00 C8 46 78 87 1C 9E 00 40 28 FA 44 P9 C5 38 0E D5 55 58 0F F0 08 00 38 F3 15 94 40 P3 15 94 40 P3 15 74 41 D0 00 00 00 15 54 15 16 02 17 17 15 54 16 92 16 92 16 92 16 92 16 92 16 92 16 92 16 92 16 92 16 92 16 92 16 92 16 92 16 92 16 92 16 92 16 92 16 18 16 16 <	8F		07
94 70 65 B7 B3 40 F3 1F A4 86 84 E1 99 CE 82 DA B7 F6 0C 77 4A 13 D0 0B CB 46 78 87 1C 9E 00 40 28 F3 9A CE 0F FA FA 8B A6 40 CF 9F 90 28 F3 9A CE 0F FA FA 8B A6 40 CF 9F 90 C1 55 75 75 75 75 75 75 75 75 75 75 75 75 75 77 70 75 57 80 77 70 75 57 80 77 70 75 57 74 72 76 77 75 57 74 72 76 77 77 75 57 74 72 75 77 78 85 74 70	90	Issuer Public Key Certificate	
99 CE 82 DA 3F F6 0C 77 4A 13 D0 0B CE 46 7B 71 10 90 40 28 FA 44 D9 S5 38 02 55 36 02 50 35 38 60 50 38 79 AP CE 0F FA R4 88 A6 B4 0C F9 60 80 88 79 70 78 78 70 89 0C 71 57 74 70 59 70 89 0C 71 58 70 89 02 71 58 74 74 72 85 74 74 72 70 59 74 74 74 75 75 74 74 74 75 75 76 74 74 74 75 75 76 74 74 74 75 75 76 74 74 74 75 75 76			
94 Application File Locator (AFL) 08 16 78 87 10 98 10 18 97 94 Application Usage Control 97 78 67 97 78 78 89 00 80 80 97 77 75 76 70 88 08 80 00 79 77 75 75 40 00 70 80 30 37 74 75 54 67 47 72 28 00 71 57 54 67 47 72 80 00 71 57 54 67 47 72 80 02 30 37 74 78 23 59 A4 94 25 87 78 D3 25 36 64 A9 22 87 74 72 38 54 63 31 74 72 25 66 A1 A7 77 75 57 83 31 34 64 30 39 97 15 85 3			
CE 0F FA FA 8B A6 B4 0C F9 69 A9 72 AF C9 D1 EC 56 25 A0 0B B8 0C F0 38 67 4F CE B2 0B FC 50 80 68 77 70 59 9E A4 E6 15 D8 60 20 30 37 F4 CB 22 9F A4 E6 15 D8 60 20 30 37 F4 CB 22 CC 6F 4D 94 C5 87 BB D3 24 F2 D8 A9 24 F2 BE B3 A4 94 A0 1A 74 74 72 56 A1 A7 A0 A9 97 71 55 50 70 83 A5 1A 72 47 55 50 70 78 55 20 C0 24 24 20			
AF C9 D1 EC 56 25 A0 0B B8 0E E0 38 6E 57 22 BD FC 5C TD 89 0C 71 5F 54 67 4F CE B2 0B 5C TD 89 0C 71 5F 54 67 4F CE B2 09 34 78 FC CE 47 A5 23 37 F4 CB 22 CC 6F 4D 02 99 34 78 FC CE 47 A5 23 59 AA 00 A4 94 C5 87 BB 03 37 F4 CB BB 26 82 42 69 C3 38 14 16 A1 A7 47 25 66 A1 A7 A0 38 38 14 16 A1 07 77 7E 55 07 80 50 81 30 39 97			55 38 0E D5 50 F9 F0 C8 B0 3B 3F 9A
6E 57 22 BD FC 5C 7D 89 0C 71 5F 54 67 4F CE B2 0B 5E 0E 80 E8 77 0B 59 9E A4 E6 15 D8 60 2D 30 37 F4 CB E2 CC 67 4D B2 99 34 78 FC CC 77 23 56 A1 A7 23 57 3B 64 A9 2E F8 77 47 25 66 A1 A7 24 26 9C 34 80 22 EF F7 83 81 1A 1A 1A 24 26 9C 24 80 92 81 1A 1A 1A 34 34 25 77 7E 55 30 39 97 C1 58 34 34 20 20 22 EF F7 89 10 10 10 10			
94 Application File Locator (AFL) 67 4F CE B2 0B 5E 0E 80 E8 77 0B 59 94 Application Usage Control 67 4F CE B2 09 34 78 FC CE 47 A5 23 37 F4 CB B2 95 AA 00 A4 94 C5 87 BF CE 64 A5 23 64 A6 42 F8 77 47 25 66 A1 A7 24 F2 0B B8 C8 24 26 9C 34 80 22 EF E7 83 85 13 A7 AD 3B DE 7B 30 34 93 99 7C 15B 34 34 24 34 94 34 85 13 A7 B0 29 60 E1 F5 59 20 DC 2E 12 38 91 DA 23 34 03 AA <td< td=""><td></td><td></td><td></td></td<>			
9E A4 E6 15 D8 60 20 30 37 F4 CB P2 CC 6F 4D B2 99 34 78 FC CE 47 A5 23 59 AA 00 A4 94 C5 87 BB D3 27 38 64 A9 2E F8 77 47 25 66 A1 A7 24 F2 0B BB C8 24 26 9C 34 80 22 EF F5 F3 B3 A1 DA 45 B8 38 14 16 A1 0F 77 7E 55 97 75 97 75 75 84 30 34 34 34 20 80 21 24 03 81 34			
9 A 00 A4 94 C5 87 BB D3 2F 3B 64 A9 2E F8 77 47 25 66 A1 A7 24 F2 0B BB C8 24 26 9C 34 80 22 EF F7 83 85 13 A7 AD 3B DE 7B 2B 3D B8 85 F5 F3 83 A1 DA 45 B8 38 14 16 A1 0F 77 75 55 90 90 97 C1 58 34 35 56 56 56 <			
A9 2E F8 77 47 25 66 A1 A7 24 F2 0B BB C8 24 26 9C 34 80 22 EF E7 83 85 13 A7 AD 3B DE 7B 2B 3D B8 8F 5F B3 A1 DA 45 B8 38 14 16 A1 0F 77 7E 55 07 B8 05 48 33 D3 99 97 C1 56 59 20 0C 2E 12 38 91 DA 23 34 03 AA D3 97 75 0F 44 56 09 CD 2A 2A 2A 2A 2A 2A 2A 2A AA D3 PA D3			CC 6F 4D B2 99 34 78 FC CE 47 A5 23
BB C8 24 26 9C 34 80 22 EF E7 83 85 13 A7 AD 3B DE 7B 2B 3D 88 87 55 13 A7 AD 3B DE 7B 2B 3D 98 87 55 07 B8 05 48 33 D3 99 97 C1 5B 34 34 20 DC 2E 12 38 91 DA 23 34 03 AD 3A AD 94 Application File Locator (AFL) 08 01 04 01 01 18 01 04 01 9F 07 Application Usage Control FF 00 BYTE 1: b8<-Domestic cash transactions valid			
13 A7 AD 3B DE 7B 2B 3D B8 8F 5F B3 A1 DA 45 B8 38 14 16 A1 0F 77 7E 55 07 B8 05 48 33 D3 99 97 C1 5B 34 34 E0 86 A7 B6 7F 6B B0 29 60 E1 F5 59 20 DC 2E 12 38 91 DA 23 34 03 AA D3 97 75 0F 44 56 09 CD 2A V 01 01 01 01 01 01 04 01 9F 07 Application Usage Control FF 00 BYTE 1: b8 Domestic cash transactions valid 55 10 13 14 04 01 01 18 01 04 01 9F 07 Application Usage Control FF 00 <td< td=""><td></td><td></td><td></td></td<>			
A1 DA 45 B8 38 14 16 A1 OF 77 72 55 07 B8 05 48 33 D3 99 97 C1 58 34 34 E0 86 A7 B6 7F 6B B0 29 60 E1 F5 59 20 DC 2E 12 38 91 DA 23 34 03 AA D3 97 75 0F 44 56 09 CD 2A			
07 B8 05 48 33 D3 99 97 C1 5B 34 34 E0 86 A7 B6 7F 6B B0 29 60 E1 F5 59 20 DC 2E 12 38 91 DA 23 34 03 AA D3 97 75 0F 44 56 09 CD 2A 4 01 01 01 01 01 04 01 9F 07 Application Usage Control FF 00 BYTE 1: <td></td> <td></td> <td></td>			
20DC2E123891DA233403AAD394Application File Locator (AFL)0801040010010101180104019F 07Application Usage ControlFF00BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b5 - International goods valid b5 - International goods valid b3 - International services valid b1 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed			
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94 Application File Locator (AFL) 08 01 04 00 10 01 01 01 01 18 01 04 01 9F 07 Application Usage Control FF 00 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b7 - Int'l cash transactions valid b7 - International goods valid b7 - International services valid b7 - International services valid b7 - International services valid b7 - International services valid b7 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed b7 - International cashback NOT allowed			
9F 07 Application Usage Control FF 00 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b7 - International goods valid b4 - Domestic services valid b7 - International services valid b7 - International services valid b7 - International services valid b7 - International services valid b7 - Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed	04	Application File Lageter (AFL)	
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			
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 07	Application Usage Control	
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			
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			b7 - Int'l cash transactions 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			
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			
b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed			
b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed			
BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed			
b7 - International cashback NOT allowed			
9F 08 Application Version Number 00 02			
	9F 08	Application Version Number	00 02

Tag	Element name	Data Card v7	.x
9F 0D	Issuer Action Code - Default	FC 78 FC A8 40	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	FC F8 FC F8 70	
9F 10	Issuer Application Data [InteracFlash]	xx 02 xx	x
		xx xx xx xx xx xx xx xx xx *	
9F 13	Last Online Application Transaction	xx xx *	
	Counter (ATC) Register		
9F 17	Personal Identification Number (PIN)	99	
	Try Counter		
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	01 00 01	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 42	Application Currency Code	01 24 - CAD	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	55 DF E1 E2 CD 4F 10 63 CD CE 9F D	
		67 D0 B2 36 E4 FC 13 85 C3 1A 82 1	
		DA 2E D9 28 24 52 C8 CB 7A 67 45 5 B3 B2 38 CD B4 B1 20 17 CE 75 7C 8	
		E6 FC E8 15 A9 AC 63 0F 98 04 9C 7	
		6C 25 F6 47 BB 64 4D C9 97 37 46 2	
		A8 EB F2 9E 5E DD 8E 93 DE EA B3 5	
		54 FF 2D D8 2A B1 22 F8 BE D8 59 D	9
		49 20 B0 D1 29 DC 09 1D BD 9A 3A A	
		A9 90 CB E9 FB D2 C8 E4 72 9C 7A F	
		26 B4 2C 31 6D 09 B0 71 1F 39 4A 1 3D 81 8B C3 66 97 68 66 9C AD 94 6	
		E9 78 0D 15 C5 60 49 6A 99 D2 1A 1	-
		C2 56 A0 8E 13 A6 B1 8D 7C 27 59 6	
		AC E2 CE D0 94 7B 24 02	-
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	4A 69 14 C9 E8 EA 10 F7 E3 7D	
9F 4A	Static Data Authentication Tag List	82	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9	F
		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 CTLS: Application Tag data, AID A0000002771010 (Flash)

Tag	Element name	Data Card v7.x
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'
57	Track 2 Equivalent Data	00 12 03 00 00 00 00 03 D2 81 22 20 08 97 74 00 00 00 1F
5A	Application Primary Account Number (PAN)	00 12 03 00 00 00 00 03
5F 24	Application Expiration Date	28 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	01 24 - CAN
5F 2D	Language Preference	65 6E 66 72 - 'enfr' (English, French)
5F 30	Service Code	02 20
5F 34	Application PAN Sequence Number	01
5F 56	Issuer Country Code (alpha3 format)	43 41 4E - 'CAN'

Tag	Element name	Data Card v7.x
82	Application Interchange Profile	
		BYTE 1: b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification NOT supported
		b4 - Terminal risk mgmt NOT to be performed
		b3 - Issuer authentication NOT supported
		b1 - Combined DDA / GEN AC supported
		BYTE 2:
84	Dedicated File (DF) Name	b8 - EMV Contactless NOT supported 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
00	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 45 02
		9F 4C 08 9F 34 03
8F	Certification Authority Public Key Index	07
90	Issuer Public Key Certificate	7E 37 FF 15 A4 88 1C 32 6D 5F 61 E4
		D7 4A 00 39 24 76 D5 44 80 B9 16 92
		4A 70 65 B7 B3 40 F3 1F A4 86 84 E1 99 CE 82 DA 3F F6 0C 77 4A 13 D0 0B
		C8 46 7B 87 1C 9E 00 40 28 FA 44 D9
		55 38 0E D5 50 F9 F0 C8 B0 3B 3F 9A
		CE OF FA FA 8B A6 B4 OC F9 69 A9 72
		AF C9 D1 EC 56 25 A0 0B B8 0E E0 38
		6E 57 22 BD FC 5C 7D 89 0C 71 5F 54 67 4F CE B2 0B 5E 0E 80 E8 77 0B 59
		9E A4 E6 15 D8 60 2D 30 37 F4 CB B2
		CC 6F 4D B2 99 34 78 FC CE 47 A5 23
		59 AA 00 A4 94 C5 87 BB D3 2F 3B 64
		A9 2E F8 77 47 25 66 A1 A7 24 F2 0B
		BB C8 24 26 9C 34 80 22 EF E7 83 85
		13 A7 AD 3B DE 7B 2B 3D B8 8F 5F B3 A1 DA 45 B8 38 14 16 A1 0F 77 7E 55
		07 B8 05 48 33 D3 99 97 C1 5B 34 34
		E0 86 A7 B6 7F 6B B0 29 60 E1 F5 59
		20 DC 2E 12 38 91 DA 23 34 03 AA D3
		97 75 0F 44 56 09 CD 2A
94	Application File Locator (AFL)	08 01 04 00 10 01 05 03
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 F8 FC F8 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC F8 FC F8 00
9F 10	Issuer Application Data [InteracFlash]	xx 02 xx
0E 10	Last Onling Application Transaction	xx * xx xx *
9F 13	Last Online Application Transaction	AA AA "
9F 17	Counter (ATC) Register	99
95 17	Personal Identification Number (PIN) Try Counter	
9F 27	Cryptogram Information Data (CID)	80
9F 27 9F 32	Issuer Public Key Exponent	01 00 01
31 JZ		

Tag	Element name	Data Card v7.x
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 46	ICC Public Key Certificate	E8 14 8E 63 62 E5 81 A3 37 9C 7E 26
		05 40 06 1D B9 43 9D A8 B7 B1 E5 B0
		2F EE 26 1A 6B E1 60 BD 65 1F 6D 0E
		86 A8 9B 61 A2 D2 55 40 4C 6A 55 6D E5 2D 1C 3F 66 F9 16 9A 77 57 38 B0
		E5 2D IC 3F 66 F9 16 9A 77 57 38 B0 E1 10 0A 9E 09 E4 A0 A8 D9 63 27 85
		86 02 56 44 10 7C 01 90 C5 89 E9 15
		50 62 3D C6 A4 14 4B 62 A9 70 1E 24
		46 59 CB 66 F6 D9 59 10 4D 54 4E 48
		01 55 91 AD 03 72 7A F1 A4 C3 8B A2
		39 FD 64 79 0E 8E 29 64 10 4B 66 7F
		F3 FE 04 00 07 E2 68 48 2E D0 4F BF A8 49 7D 08 B3 38 30 F6 32 13 4A 5C
		F8 A8 40 C2 18 44 0B 47 CB DA A6 16
		34 58 1F 2B F6 FD DD ED
9F 47	ICC Public Key Exponent	01 00 01
9F 48	ICC Public Key Remainder	4A 69 14 C9 E8 EA 10 F7 E3 7D
9F 4A	Static Data Authentication Tag List	82
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F
		1A 02 95 05 9C 01 8A 02
9F 52	Merchant Type Indicator Limits 01	00 00 00 02 50 01 99 99 99 99 99 99
9F 54	Merchant Type Indicator Limits 02	00 00 00 02 50 01 99 99 99 99 99 99
9F 55	Merchant Type Indicator Limits 03	00 00 00 02 50 01 99 99 99 99 99 99
9F 56	Merchant Type Indicator Limits 04	00 00 00 02 50 01 99 99 99 99 99 99
9F57	Merchant Type Indicator Limits 05	00 00 00 02 50 01 99 99 99 99 99 99
9F 62	Card Product Code [InteracFlash]	00 01
9F 63	Card Transaction Information	00 10 00 00
	[InteracFlash]	
9F 70	Form Factor Indicator [InteracFlash]	00
DF 62	Application Selection Flag [Canada]	80 80

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

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

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

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

4.16.1 Contact: CVM List - Mastercard, AID A00000004101001

4.16.2	Contact: Application Tag data, AID A	00000004101001
Tag	Element name	Data Card v6.x
50	Application Label	4D 41 53 54 45 52 43 41 52 44 43 52
		45 44 49 54 - 'MASTERCARDCREDIT'
57	Track 2 Equivalent Data	54 13 33 00 89 02 00 60 D2 51 22 01
E A	Application Drimony Account Number	14 83 59 49 00 0F 54 13 33 00 89 02 00 60
5A	Application Primary Account Number	54 15 55 00 89 02 00 80
5F 20	(PAN) Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
5F 20		73 74 20 43 61 72 64 20 31 36 20 20
		20 20 - 'USA DEBIT/Test Card 16'
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	xx xx xx *
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile	18 00
		BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10 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 2A 02 9A 03 9C 01 9F 37 04 9F 35 01
	1 (CDOL1)	9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 41 03 42 03
	List	5E 03 1F 00 00 00
94	Application File Locator (AFL)	08 01 01 00 10 01 02 00
94	Application File Locator (AFL)	08 01 01 00 10 01 02 00
9F 07	Application Usage Control	FF 00
		BYTE 1:
		b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid
		b1 - non-ATM terminals valid BYTE 2:
		b 1 E 2. b8 - Domestic cashback NOT allowed
		b7 - International cashback NOT allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 BC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00
9F 10	Issuer Application Data [M/Chip	xx 14 xx
	Advance]	xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01

4.16.2 Contact: Application Tag data, AID A00000004101001

9F 12 Application Preferred Name 4D 61 73 74 65 72 63 61 72 64 43 7 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) 2B FB AF 1A 64 BF F4 32 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx xx * 9F 42 Application Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 12 00 02 5	Tag	Element name	Da	ita								Ca	ırd v	/6.x
65 64 69 74 -'MastercardCredit' 9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 20 Counter 1 Upper Limit [Mastercard] 00 9F 23 Counter 1 Upper Limit [Mastercard] 00 9F 24 Application Cryptogram (AC) 28 FB AF 1A 64 BF 43 2 9F 26 Application Transaction Counter (ATC) xx xx * * 97 297 20 26 57 20 98 297 20 60 297 20 60 29 20 60 29 20					73	74	65	72	63	61	72			
21 1 Openant Leonor Limit (Indextored) 09 21 Personal Identification Number (PIN) 09 27 Counter 1 Upper Limit [Mastercard] 00 97 23 Counter 1 Upper Limit [Mastercard] 00 97 24 Application Transaction Counter (ATC) Xx xx * 97 24 Application Transaction Counter (ATC) Xx xx * 97 24 Application Transaction Counter (ATC) Xx xx * 97 44 Transaction Log Format 97 20 20 25 21 97 21 97 21 97 21 97 20 00					69	74	- 'N	laste	erca	rdCr	edit			
Try Counter Image: Conternation of the context of the contex of the context of the contex of the context of the cont														
OP 23 Counter 1 Upper Limit [Mastercard] 00 9F 26 Application Cryptogram (AC) 2B FB AF 1A 64 BF F4 32 9F 37 Cryptogram Information Data (CID) 80 9F 42 Application Currency Code 08 40 - USD 9F 44 Transaction Log Entry 0B 0A 9F 47 Transaction Log Entry 0B 0A 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 12 00 02 5 x0 00 00 00 00 00 00 00 00 00 00 00 00	9F 17		09											
GF 26 Application Cryptogram (AC) 28 FB AF 1A 64 BF F4 32 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Transaction Counter (ATC) xx xx * 9F 4D Transaction Log Entry 9B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9 9F 7E Application Tiransaction Counter (ATC) xx xx * 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 12 00 02 5 00 00 00 00 00 00 00 00 00 00 00 00 00	05.00		~~											
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1 1 0.9 xx xx * 9F 36 Application Transaction Counter (ATC) xx xx * 9F 42 Application Log Entry 08 0A 9F 4F Transaction Log Entry 08 0A 9F 7E Application Life Cycle Data [Mastercard] 04 10 08 14 00 01 00 00 12 00 02 5 9F 7E Application Currency Code 08 0A 9F 7E Application Life Cycle Data [Mastercard] 04 10 08 14 00 01 00 00 12 00 02 5 00 00 00 00 00 00 00 00 00 00 00 00 00				гD	Ar	IA	04	БГ	F 4	52				
9F 42 Application Currency Code 08 40 - USD 9F 4D Transaction Log Entry 08 0A -<				xx	*									
9F 4D Transaction Log Entry 0B 0A 9F 4F Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9 36 02 9F 52 06 DF 3E 01 9F 21 03 9 7C 14 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 20 00 00 00 00 00 00 00 00 00 00 00 00 00						ISD								
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9F 7E Application Life Cycle Data [Mastercard] 04 10 08 14 00 01 00						52	06	DF	3E	01	9F	21	03	9F
AN D O									~ ~ ~	~ ~ ~	10			
00 00<	9F 7E	Application Life Cycle Data [Mastercard]												
00 00<														00
Decline [M/Chip Advance] IF 50 00 C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 3F FB 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 09 C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 00 00 00 00 00 CA Accumulator 1 Lupper Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Code (Contactless) - Default [M/Chip Advance] 00 00 00 CE Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 01 01 08 40 00 01 01 08 40 00 0 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 00 00 00 00 00 01 D3 Additional Check Table [Mastercard] 00 01 01 08 40 00 01 01 08 40 00 0 01 D4 Accumulator 1 Control [M/Chip Advance] 00 00 00 00 00 00 00														00
C4 Card Issuer Action Code (Contact) - Default [M/Chip Advance] 1F 50 00 C5 Card Issuer Action Code (Contact) - Online [M/Chip Advance] 3F FB 00 C6 PIN Try Limit [M/Chip Advance] 09 C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code 08 40 - USD [Mastercard] 00 00 00 00 00 00 00 00 CB Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Corrency 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 01 01 08 40 00 01 01 08 40 00 0 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 00 00 00 00 01 01 08 40 00 0 D3 Additional Check Table [Mastercard] 00 00 00 00 00 00 00 00 00 D4 Default ARPC Response Code [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 D	C3	Card Issuer Action Code (Contact) -	00	00	00									
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C7 CDOL1 Related Data Length [Mastercard] 42 C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 08 40 - USD CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 00 00 00 00 CD Card Issuer Action Code (Contactless) - Default [M/Chip Advance] 00 00 00 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 01 01 08 40 00 01 01 08 40 00 0 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 00 D3 Additional Check Table [Mastercard] 00 00 00 00 00 00 00 00 00 00 00 00 00	06		09											
C8 CRM Country Code [Mastercard] 08 40 - USA C9 Accumulator 1 Currency Code [Mastercard] 00 00 00 00 00 00 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) - Default [M/Chip Advance] 00 00 00 CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 00 00 00 01 01 08 40 00 01 01 08 40 00 0 D3 Additional Check Table [Mastercard] 00 00 00 00 00 00 01 D3 Application Control [M/Chip Advance] 86 00 80 00 c6 02 00 10 D6 Default ARPC Response Code [M/Chip Advance] 00 00 00 00 00 00 00 00 00 D7 Application Control [M/Chip Advance] 00 00 00 00 00 00 00 00 00 DF Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 DF Log Data Table [M/Chip Advance] 00 00 00 00 00 00 00 00 00 00 00 DF Security Limits Status (Contact) [M/Chip Advance]														
C8 CRM Country Code [Mastercard] 08 40 USA C9 Accumulator 1 Currency Code [Mastercard] 08 40 USD CA Accumulator 1 Lower Limit [Mastercard] 00 00 00 00 00 CB Accumulator 1 Upper Limit [Mastercard] 00 01 01 08 40 00 01 00 00 00 00 00 00 00 00 00 00 00 00 00	07													
C9 Accumulator 1 Currency Code [Mastercard] 08 40 - USD CA Accumulator 1 Lower Limit [Mastercard] 00	C8		08	40	- L	JSA								
[Mastercard] 00														
CA Accumulator 1 Lower Limit [Mastercard] 00 01 11 84 00 01 01 84 00 01 01 84 00 01 01 84 00 01 01 84 00 00 01 01	•••													
CDCard Issuer Action Code (Contactless) - Default [M/Chip Advance]00 00 00CECard Issuer Action Code (Contactless) - Online [M/Chip Advance]00 00 00CFCard Issuer Action Code (Contactless) - Decline [M/Chip Advance]00 00 00D1Accumulator 1 Currency Conversion Table [Mastercard]08 40 00 01 01 08 40 00 01 01 08 40 00 0D3Additional Check Table [Mastercard]00 00 00 FF F	CA		00	00	00	00	00	00						
Default [M/Chip Advance]CECard Issuer Action Code (Contactless) - Online [M/Chip Advance]00 00 00CFCard Issuer Action Code (Contactless) - Decline [M/Chip Advance]00 00 00D1Accumulator 1 Currency Conversion Table [Mastercard]08 40 00 01 01 08 40 00 01 01 08 40 00 0D3Additional Check Table [Mastercard]00 00 00 FF F	СВ	Accumulator 1 Upper Limit [Mastercard]	00	00	00	00	00	00						
CE Card Issuer Action Code (Contactless) - Online [M/Chip Advance] 00 00 00 00 CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 00 00 01 01 08 40 0	CD		00	00	00	1								
CF Card Issuer Action Code (Contactless) - Decline [M/Chip Advance] 00 00 00 00 D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01	CE		00	00	00									
Decline [M/Chip Advance] 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 01 08 40 00 01 01 01 01 08 40 00 01 0		Online [M/Chip Advance]												
D1 Accumulator 1 Currency Conversion Table [Mastercard] 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 01 01 08 40 00 00 00 01 01 08 40 00 00 00 01 01 08 40 00 00 00 01 01 08 40 00 00 00 01 01 08 40 00 00 00 00 01 01 01 08 40 00<	CF		00	00	00									
Table [Mastercard]00 01 01 01 08 40 00 01 01 08 40 00 0D3Additional Check Table [Mastercard]00 00 00 FF F														
D3Additional Check Table [Mastercard]01D3Additional Check Table [Mastercard]00 00 00 FF F	D1													
D3Additional Check Table [Mastercard]000000FF <td></td> <td>Table [Mastercard]</td> <td></td> <td></td> <td>01</td> <td>00</td> <td>40</td> <td>00</td> <td>01</td> <td>01</td> <td>00</td> <td>40</td> <td>00</td> <td>01</td>		Table [Mastercard]			01	00	40	00	01	01	00	40	00	01
FFFFFFFFFFFFD5Application Control [M/Chip Advance]86008000c602D6Default ARPC Response Code [M/Chip Advance]00101010D7Application Control [M/Chip Advance]0000000000D9Application File Locator (Contactless)000000000000DELog Data Table [M/Chip Advance]00000000000000DF 02Security Limits Status (Contact) [M/Chip Advance]00000000000000DF 11Accumulator 1 Control (Contactless)C1	D3	Additional Check Table [Mastercard]	00	00	00	FF	FF	FF	FF	FF	FF	FF	FF	FF
D6Default ARPC Response Code [M/Chip Advance]0010D7Application Control [M/Chip Advance]0000000000D9Application File Locator (Contactless)00000000000000DELog Data Table [M/Chip Advance]000000000000000000DF 02Security Limits Status (Contact) [M/Chip Advance]00000000000000000000DF 11Accumulator 1 Control (Contact) [M/Chip Advance]C110														
Dotatil and ontropolice code [M/ chip Advance] D7 Application Control [M/Chip Advance] D9 Application File Locator (Contactless) DE Log Data Table [M/Chip Advance] 00 00 00 00 00 00 DF 02 Security Limits Status (Contact) [M/Chip Advance] 00 0					80	00	C6	02						
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DELog Data Table [M/Chip Advance]00 00 00 00 00 00 00 00 00 00DF 02Security Limits Status (Contact) [M/Chip Advance]00DF 11Accumulator 1 Control (Contact) [M/Chip Advance]C1DF 12Accumulator 1 Control (Contactless)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) 00														
Advance] C1 DF 11 Accumulator 1 Control (Contact) [M/Chip Advance] C1 DF 12 Accumulator 1 Control (Contactless) 00					00	00	00	00	00	00	00			
[M/Chip Advance] DF 12 Accumulator 1 Control (Contactless)	DF 02		00											
DF 12 Accumulator 1 Control (Contactless) 00	DF 11		C1											
	DF 12	Accumulator 1 Control (Contactless)	00											
DF 14 Accumulator 2 Control (Contact) 00 [M/Chip Advance]	DF 14	Accumulator 2 Control (Contact)	00											

Tag	Element name	Data Card v6.x
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code	08 40 - USD
_	[Mastercard]	
DF 17	Accumulator 2 Currency Conversion	08 40 00 01 01 08 40 00 01 01 08 40
	Table [Mastercard]	00 01 01 08 40 00 01 01 08 40 00 01
		01
DF 18	Accumulator 2 Lower Limit [Mastercard]	00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [Mastercard]	00 00 00 00 00
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	00
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00
DF 1F	Counter 2 Lower Limit [Mastercard]	00
DF 21	Counter 2 Upper Limit [Mastercard]	00
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00
DF 23	MTA CVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 24	MTA Currency Code [M/Chip Advance]	08 40
DF 25	MTA NoCVM (Contact) [M/Chip	00 00 00 00 00 00
	Advance]	00 00 00 00 00 00
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	
DF 27	Number Of Days Offline Limit [M/Chip Advance]	99 99
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00
DF 2D	Counter 1 CVR Dependency Data	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
DF 30	(Contactless) [M/Chip Advance] Interface Enabling Switch [M/Chip	01
	Advance]	00
DF 35	Security Limits Status (Contactless)	00
	[M/Chip Advance]	00
DF 37	Security Limits Status Common [M/Chip Advance]	
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
<u> </u>	/ availoo]	

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

4.16.3 Contact: CVM List - Mastercard, AID A00000004101002

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

4.16.4 Contact: Application Tag data, AID A00000004101002

Tag	Element name	Data Card v6.x
42	Issuer Identification Number (IIN)	54 13 33
50	Application Label	44 45 42 49 54 20 4D 41 53 54 45 52
		43 41 52 44 - 'DEBIT MASTERCARD'
57	Track 2 Equivalent Data	54 13 33 00 89 09 91 30 D2 51 22 01 14 83 59 49 00 0F
5A	Application Primary Account Number	54 13 33 00 89 09 91 30
	(PAN)	
5F 20	Cardholder Name	55 53 41 20 44 45 42 49 54 2F 54 65
		73 74 20 43 61 72 64 20 31 36 20 20 20 20 - 'USA DEBIT/Test Card 16'
55.04	Application Expiration Data	25 12 31
5F 24	Application Expiration Date	xx xx xx *
5F 25	Application Effective Date	08 40 - USA
5F 28	Issuer Country Code	65 6E - 'en' (English)
5F 2D 5F 30	Language Preference Service Code	
5F 30		01
	Application PAN Sequence Number	55 53 - 'US'
5F 55 82	Issuer Country Code (alpha2 format)	18 00
82	Application Interchange Profile	BYTE 1:
		b7 - Offline SDA NOT supported
		b6 - Offline DDA NOT supported
		b5 - Cardholder verification supported
		b4 - Terminal risk mgmt to be performed
		b3 - Issuer authentication NOT supported via
		EXTERNAL AUTH command
		b1 - Combined DDA / GEN AC NOT supported BYTE 2:
		b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10 02
87	Application Priority Indicator	02
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List 2 (CDOL2)	91 OA 8A 02 95 05 9F 37 04 9F 4C 08
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 00 42 01 1E 03
	List	42 03 1F 03
94	Application File Locator (AFL)	08 01 01 00 10 01 02 00 18 01 01 00
94	Application File Locator (AFL)	08 01 01 00 10 01 02 00 18 01 01 00

9F 07 Application Usage Control FF C0 BYTE 1: b8 - Domestic cash trans. valid b6 - Domestic goods valid b6 - Domestic goods valid b6 - Domestic goods valid b7 - Intri cash transactional services valid b2 - International services valid b3 - International services valid b1 - non-ATM terminals valid B7 00 9F 08 Application Version Number 00 02 9F 00 Issuer Action Code - Default B0 50 92 9F 01 Issuer Action Code - Default B0 50 92 80 9F 01 Issuer Action Code - Online B0 70 92 98 00 9F 01 Issuer Action Code - Online B0 70 92 98 00 9F 10 Issuer Action Code - Online B0 70 92 98 00 9F 11 Issuer Code Table Index 01 97 97 40 61 73 74 65 72 9F 12 Application Preferred Name 44 65 62 97 20 4D 61 73 74 65 72 9F 23 Counter 1 Lower Limit [Mastercard] 00			
BYTE 1: b8 - Domestic cash trans, valid b5 - Domestic goods valid b5 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b5 - International services valid b7 - International cashback allowed b7 - International cashba	Tag		
b8- Domestic cash trans. valid b7- Int' cash transactions valid b6- Domestic goods valid b7- Int' cash transactions valid b6- Domestic goods valid b7- Int' cash transactions valid b2- ATMs valid b2- ATMs valid b7- International services valid b7- International services valid b7- International cashback allowed b7- International cashback allowed b7- International cashback allowed b7- International cashback allowed b7- DI Issuer Action Code - Default b0 00 00 00 b7 DF Issuer Action Code - Denial 00 00 00 00 b7 DI Issuer Action Code - Online b0 70 9C 98 00 b7 11 Issuer Code Table Index 01 b7 12 Application Preferred Name 44 65 62 69 74 20 4D 61 73 74 65 72 63 61 72 64 - 'Debit Mastercardt' b7 17 Personal Identification Number (PIN) cast xx xx xx xx xx * b7 2 Application Transaction Counter (AC) xx xx xx xx xx xx xx xx * cast x* b7 27 Cryptogram Information Data (CID) 80 b7 47 Application Turnsaction Counter (AC) xx xx * b7 47 Application Currency Code 08 40 - US	9F 07	Application Usage Control	
b7 http://times.org b7 http://times.org b7 b7 b7 http:/times.org b7 http:/times.org b7 b7 b7 b7 b7 b7 b7 b7 b7 b7 b7 b7 b7 b7 b7 b7 b7			
b6 - Domestic goods valid b5 - International goods valid b2 - ATMs valid b2 - ATMs valid b2 - ATMs valid b1 - non-ATM terminals valid b2 - ATMs valid b1 - non-ATM terminals valid b1 - non-ATM terminalstericard] b1 - non-ATT terminals valid valid valid va			
b5 International goods valid b4 Domestic services valid b3 b4 Domestic services valid b2 Domestic services valid b2 b7 ATMK valid b1 non-ATM terminals valid BYTE 2: b8 b8 Domestic cashback allowed b7 International cashback allowed b7 9F 00 Issuer Action Code - Default B0 B0 50 9C 88 00 9F 01 Issuer Action Code - Denial B1 00 00 00 00 00 9F 01 Issuer Action Code - Online B0 D0 9C 98 00 9F 9F 10 Issuer Code Table Index 01 9F 1 1 9F 9F 11 Issuer Code Table Index 01 9F 1 1 9F 9F 12 Application Preferred Name 63 61 12 64 10 1 9F 24 Counter 1 Lower Limit [Mastercard] 00 90 97 1 97 2 64 19 24 97 1 97 20 10 97 27 19			
bd-Domestic services valid b3-International services valid b3-International services valid b2-ATMs valid b1-International services valid b2-ATMs valid b1-International cashback allowed b7-International cashback allowed b7-DI Issuer Action Code - Denial 00 00 00 00 b7 DI Issuer Action Code - Online B0 70 9C 98 00 b7 II Issuer Code Table Index 01 b7 12 Application Preferred Name 44 65 62 69 74 20 4D 61 73 74 65 72 63 61 72 64 - 'Debit Mastercardt' b7 17 Personal Identification Number (PIN) Try Counter b7 22 Counter 1 Lower Limit [Mastercard] 00 b7 42 Application Cryptogram Information Data (CID) 80 b7 42 Application Currency Code 08 40 - USD b7 47 F7 21 3 9F 20 06 5F 2A 02 9A 03 9F 72 10 3 9F 27 01 9F 02 06 5F 2			
b3 International services valid b2 https://dx.valid b2 ATMS valid BYTE 2: b8 Domestic cashback allowed b7 https://dx.valid 9F 00 Issuer Action Code - Default 80 50 9C 88 00 9F 01 Issuer Action Code - Denial 00 00 00 00 00 9F 01 Issuer Action Code - Oline 80 70 9C 98 80 00 9F 01 Issuer Action Code - Oline 80 70 9C 98 80 00 9F 10 Issuer Code Table Index 01 xx xx xx xx xx xx xx xx xx xx xx xx xx xx			
bb 2 ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed b7 - ID BSuer Action Code - Defial 00 00 00 00 9F 0E Issuer Action Code - Online B0 70 9C 98 00 xx			
b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 00 JSter Action Code - Default B0 50 9C 88 00 9F 00 JSter Action Code - Denial 00 02 9F 01 JSter Action Code - Denial 00 01 9F 05 Issuer Action Code - Online 80 70 9C 98 00 9F 10 Issuer Action Code - Online 80 70 9C 98 00 9F 11 Issuer Code Table Index 9F 12 Application Preferred Name 44 65 62 69 74 20 4D 61 73 74 65 72 63 61 72 64 - Debit Mastercardt 9F 17 Personal Identification Number (PIN) 74 75 72 72 71 9F 27 71 9F 27 9F 27 9F 27 9F 27 9F 27 9F 27 9F 20 9F 27 9F 27 9F			
BYTE 2: b8 - Domestic cashback allowed 9F 08 Application Version Number 00 02 9F 00 Issuer Action Code - Default 80 50 92 80 9F 01 Issuer Action Code - Denial 00 00 00 00 9F 01 Issuer Action Code - Online 90 70 92 98 00 9F 10 Issuer Action Code - Online 90 70 92 98 00 9F 11 Issuer Action Data [M/Chip xx 10 xx			
b7 - International cashback allowed 9F 0D Issuer Action Code - Default B0 50 9C 88 00 9F 0D Issuer Action Code - Denial 00 00 00 00 00 00 9F 0E Issuer Action Code - Online B0 70 9C 98 00 00 9F 0E Issuer Action Code - Online B0 70 9C 98 00 00 9F 10 Issuer Action Code - Online B0 70 9C 98 00 00 9F 11 Issuer Action Code - Online B0 70 9C 98 00 00 9F 11 Issuer Action Code - Online B0 70 9C 98 00 00 9F 11 Issuer Code Table Index 01 97 30 9C 97 42 0 4D 61 73 74 65 72 63 61 72 64 - 'Debit Mastercard' 9F 17 Personal Identification Number (PIN) 03 72 64 - 'Debit Mastercard' 00 9F 27 Cryptogram Information Data (CID) 80 97 97 97 97 86 00 97 21 01 9F 02 06 5F 2A 02 9A 03 9F 7C 14 9F 42 Application Currency Code 08 40 - USD 96 41 97 21 03 9F 21 03 9			
9F 08 Application Version Number 00 02 9F 00 Issuer Action Code - Default B0 50 9C 88 00 9F 01 Issuer Action Code - Denial 00 00 00 00 00 9F 01 Issuer Action Code - Online B0 70 92 98 00 9F 10 Issuer Action Code - Online B0 70 92 98 00 9F 11 Issuer Action Code - Table Index 01 xx xx xx xx xx xx xx xx xx xx			b8 - Domestic cashback allowed
Bit Of Typeretext of Code Default B0 50 9C 88 00 9F 0D Issuer Action Code - Denial 00			b7 - International cashback allowed
9F 0E Issuer Action Code - Denial 00 00 00 00 9F 0F Issuer Action Code - Online B0 70 92 98 00 9F 10 Issuer Application Data [M/Chip xx 10 xx <	9F 08	Application Version Number	00 02
DF OF Issuer Action Code - Online B0 70 9C 98 00 9F OF Issuer Application Data [M/Chip xx 10 xx x	9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
9F 0F Issuer Action Code - Online B0 70 9C 98 00 9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx	9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 10 Issuer Application Data [M/Chip Advance] xx 10 xx			B0 70 9C 98 00
Advance xx			xx 10 xx
9F 11 Issuer Code Table Index 01 9F 12 Application Preferred Name 44 65 62 69 74 20 4D 61 73 74 65 72 9F 14 Counter 1 Lower Limit [Mastercard] 00 09 77 64 'Debit Mastercard' 9F 17 Personal Identification Number (PIN) Try Counter 00 99 73 60 99 9F 23 Counter 1 Upper Limit [Mastercard] 00 99 74 20 4A 75 9F 24 Application Cryptogram (AC) xx	01 10		xx xx xx xx xx xx *
9F 12 Application Preferred Name 44 65 62 69 74 20 4D 61 73 74 65 72 9F 14 Counter 1 Lower Limit [Mastercard] 00	9F 11		01
61 12 Application 11 Ciencol relation 9F 14 Counter 1 Lower Limit [Mastercard] 00 9F 17 Personal Identification Number (PIN) Try Counter 00 9F 26 Application Cryptogram (AC) xx xx xx xx xx xx xx * 9F 26 Application Cryptogram (AC) xx xx xx xx * 9F 27 Cryptogram Information Data (CID) 80 0 9F 36 Application Transaction Counter (ATC) xx xx * * * 9F 42 Application Currency Code 08 40 - USD 9F 44 Transaction Log Entry 08 04 10 01 00 01 20 02 9A 03 9F 9F 7E Application Life Cycle Data [Mastercard] 04 10 08 10 00 00 00 00 00 00 00 00 00 00 02 05 9A 03 9F 36 02 9F 20 02 9A 03 9F 7C 14 <td< td=""><td></td><td></td><td></td></td<>			
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 24 Application Cryptogram (AC) xx 9F 27 Cryptogram Information Data (CID) 80 9F 36 Application Currency Code 08 40 - USD 9F 42 Application Log Entry 09 9F 4F Transaction Log Entry 08 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 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 12 00 02 59 A0 00 00 00 00 00 00 00 00 00 00 00 00	31 12	Application Freieneu Name	
9F 17 Personal Identification Number (PIN) Try Counter 09 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 * 9F 42 Application Currency Code 08 40 - USD 9F 47 Transaction Log Entry 0B 0A 9F 47 Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 12 00 02 59 A0 00 00 00 00 00 00 00 00 00 00 00 00	9F 14	Counter 1 Lower Limit [Mastercard]	
Try Counter 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 * 9F 42 Application Currency Code 08 40 - USD 9F 44 Transaction Log Entry 0B 0A 9F 47 Transaction Log Format 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 12 00 02 59 A0 00 00 00 00 00 00 00 00 00 00 00 00			09
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 9F 42 Application Currency Code 08 40 - USD 9F 42 Application Log Entry 0B 0A 9F 4F Transaction Log Entry 0B 0A 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 12 00 02 59 A0 00 00 00 00 00 00 00 00 00 00 00 00 0	31 17		
9F 26 Application Cryptogram (AC) xx	0 - 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 41 Transaction Log Entry 0B 0A 9F 42 Application Lige 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 12 00 02 59 A0 00 00 00 00 00 00 00 00 00 00 00 00			
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 7C 14 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 00 12 00 02 59 A0 00 00 00 00 00 00 00 00 00 00 00 00			
00 Application Currency Code 08 40 - USD 9F 42 Application Currency Code 08 0A - 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 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 02 02 59 Application Life Cycle Data [Mastercard] 04 10 08 00			
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 9F 7E Application Life Cycle Data [Mastercard] 04 10 08 14 00 01 00 00 02 59 Application Life Cycle Data [Mastercard] 04 10 08 10 00			
9F 4F Transaction Log Entry 9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14 9F 7E Application Life Cycle Data [Mastercard] A0 00 00 00 00 01 10 00 00 12 00 02 59 A0 00 00 00 00 00 00 00 00 00 00 00 00 00 00			
36 02 9F 32 06 DF 32 01 9F 21 03 9F 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 01 20 02 59 A0 00			
7C 14 9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 01 20 02 59 A0 00 00 00 04 10 0B 14 00 01 00 02 59 A0 00 00 00 04 10 10 00 02 59 A0 00 <td>9F 4F</td> <td>Transaction Log Format</td> <td></td>	9F 4F	Transaction Log Format	
9F 7E Application Life Cycle Data [Mastercard] 04 10 0B 14 00 01 00 01 20 00 25 59 A0 00 00 00 00 00 00 00 00 00 00 00 00 0			
Approvide Data [Matched of Contact] A0 0		Application Life Cycle Data [Mastercard]	-
00 00 <td< td=""><td>9F / E</td><td>Application Life Cycle Data [Mastercard]</td><td></td></td<>	9F / E	Application Life Cycle Data [Mastercard]	
C3Card Issuer Action Code (Contact) - Decline [M/Chip Advance]000000C4Card Issuer Action Code (Contact) - Default [M/Chip Advance]065000C5Card Issuer Action Code (Contact) - Online [M/Chip Advance]06FB00C6PIN Try Limit [M/Chip Advance]09C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]0840- USAC9Accumulator 1 Currency Code [Mastercard]00000000CAAccumulator 1 Lower Limit [Mastercard]0000000000CBAccumulator 1 Upper Limit [Mastercard]0000000000CDCard Issuer Action Code (Contactless) -0000000000			
Decline [M/Chip Advance]C4Card Issuer Action Code (Contact) - Default [M/Chip Advance]06 50 00C5Card Issuer Action Code (Contact) - Online [M/Chip Advance]06 FB 00C6PIN Try Limit [M/Chip Advance]09C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]08 40 - USAC9Accumulator 1 Currency Code [Mastercard]00 00 00 00 00 00CAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00 00CBAccumulator 1 Upper Limit [Mastercard]00 00 00 00 00CDCard Issuer Action Code (Contactless) -00 00 00			00 00 00 00 00 00 00 00 00 00 00 00
Decline [M/Chip Advance]C4Card Issuer Action Code (Contact) - Default [M/Chip Advance]06 50 00C5Card Issuer Action Code (Contact) - Online [M/Chip Advance]06 FB 00C6PIN Try Limit [M/Chip Advance]09C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]08 40 - USAC9Accumulator 1 Currency Code [Mastercard]08 40 - USDCAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00CBAccumulator 1 Upper Limit [Mastercard]00 00 00 00 00CDCard Issuer Action Code (Contactless) -00 00 00	C3	Card Issuer Action Code (Contact) -	00 00 00
C4Card Issuer Action Code (Contact) - Default [M/Chip Advance]06 50 00C5Card Issuer Action Code (Contact) - Online [M/Chip Advance]06 FB 00C6PIN Try Limit [M/Chip Advance]09C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]08 40 - USAC9Accumulator 1 Currency Code [Mastercard]00 00 00 00 00 00CAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00 00CBAccumulator 1 Upper Limit [Mastercard]00 00 00 00 00 00CDCard Issuer Action Code (Contactless) -00 00 00			
Default [M/Chip Advance]C5Card Issuer Action Code (Contact) - Online [M/Chip Advance]06 FB 00C6PIN Try Limit [M/Chip Advance]09C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]08 40 - USAC9Accumulator 1 Currency Code [Mastercard]08 40 - USDCAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00 00CBAccumulator 1 Upper Limit [Mastercard]00 00 00 00 00 00CDCard Issuer Action Code (Contactless) -00 00 00	C4		06 50 00
C5Card Issuer Action Code (Contact) - Online [M/Chip Advance]06 FB 00C6PIN Try Limit [M/Chip Advance]09C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]08 40 - USAC9Accumulator 1 Currency Code [Mastercard]08 40 - USDCAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00 00CBAccumulator 1 Upper Limit [Mastercard]00 00 00 00 00 00CDCard Issuer Action Code (Contactless) -00 00 00	•		
Online [M/Chip Advance]C6PIN Try Limit [M/Chip Advance]09C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]08 40 - USAC9Accumulator 1 Currency Code [Mastercard]08 40 - USDCAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00 00CBAccumulator 1 Upper Limit [Mastercard]00 00 00 00 00 00CDCard Issuer Action Code (Contactless) -00 00 00	C5		06 FB 00
C6PIN Try Limit [M/Chip Advance]09C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]08 40 - USAC9Accumulator 1 Currency Code [Mastercard]08 40 - USDCAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00 00CBAccumulator 1 Upper Limit [Mastercard]00 00 00 00 00 00CDCard Issuer Action Code (Contactless) -00 00 00			
C7CDOL1 Related Data Length [Mastercard]42C8CRM Country Code [Mastercard]08 40 - USAC9Accumulator 1 Currency Code [Mastercard]08 40 - USDCAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00 00CBAccumulator 1 Upper Limit [Mastercard]00 00 00 00 00 00CDCard Issuer Action Code (Contactless) -00 00 00	C6		09
[Mastercard]08 40 - USAC8CRM Country Code [Mastercard]08 40 - USAC9Accumulator 1 Currency Code [Mastercard]08 40 - USDCAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00 00CBAccumulator 1 Upper Limit [Mastercard]00 00 00 00 00 00CDCard Issuer Action Code (Contactless) -00 00 00			
C8CRM Country Code [Mastercard]0840USAC9Accumulator 1 Currency Code [Mastercard]0840USDCAAccumulator 1 Lower Limit [Mastercard]00000000CBAccumulator 1 Upper Limit [Mastercard]0000000000CDCard Issuer Action Code (Contactless) -00000000	01	6	
C9Accumulator 1 Currency Code [Mastercard]08 40 - USDCAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00 00CBAccumulator 1 Upper Limit [Mastercard]00 00 00 00 00 00CDCard Issuer Action Code (Contactless) -00 00 00	C8		08 40 - USA
[Mastercard]00 00 00 00 00 00CAAccumulator 1 Lower Limit [Mastercard]00 00 00 00 00 00CBAccumulator 1 Upper Limit [Mastercard]00 00 00 00 00CDCard Issuer Action Code (Contactless) -00 00 00			
CA Accumulator 1 Lower Limit [Mastercard] 00	69		
CBAccumulator 1 Upper Limit [Mastercard]0000000000CDCard Issuer Action Code (Contactless) -000000	<u> </u>		
CD Card Issuer Action Code (Contactless) - 00 00 00			
L Detault IM/Chin Advancel	CD		
		Default [M/Chip Advance]	
CE Card Issuer Action Code (Contactless) - 00 00 00	CE		00 00 00
Online [M/Chip Advance]			
CF Card Issuer Action Code (Contactless) - 00 00 00	CF		00 00 00
Decline [M/Chip Advance]			1

B2 》	
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Tag	Element name	Da										rd ۱	′6.x
D1	Accumulator 1 Currency Conversion									01		08	
	Table [Mastercard]		01	01	08	40	00	01	01	08	40	00	01
		01											
D3	Additional Check Table [Mastercard]							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]	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											
0115	[M/Chip Advance]												
DF 16	Accumulator 2 Currency Code	0.8	40	- 11	90								
DF 10		08	40	- 0	00								
	[Mastercard]	00	40	00	01	01	00	40	00	01	01	00	40
DF 17	Accumulator 2 Currency Conversion									01			
	Table [Mastercard]	01	01	01	00	-10	00	01	01	00	-10	00	01
DF 18	Accumulator 2 Lower Limit [Mastercard]	-	00	00	00	00	00						
DF 19	Accumulator 2 Upper Limit [Mastercard]					00							
DF 1A	Counter 1 Control (Contact) [M/Chip	C1											
DETA	Advance]	01											
DF 1B	Counter 1 Control (Contactless) [M/Chip	00											
	Advance]	00											
DF 1D		00											
	Counter 2 Control (Contact) [M/Chip	00											
	Advance]	00											
DF 1E	Counter 2 Control (Contactless) [M/Chip	00											
DE 45	Advance]	00											
DF 1F	Counter 2 Lower Limit [Mastercard]	00											
DF 21	Counter 2 Upper Limit [Mastercard]	00											
DF 22	MTA CVM (Contact) [M/Chip Advance]					00							
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	99	99										
	Advance]												
DF 28	Accumulator 1 CVR Dependency Data	00	00	00									
	(Contact) [M/Chip Advance]												
DF 29	Accumulator 1 CVR Dependency Data	00	00	00									
	(Contactless) [M/Chip Advance]												
DF 2A	Accumulator 2 CVR Dependency Data	00	00	00									
	(Contact) [M/Chip Advance]												
DF 2B	Accumulator 2 CVR Dependency Data	00	00	00									
	(Contactless) [M/Chip Advance]												
DF 2C	Counter 1 CVR Dependency Data	00	00	00									
	(Contact) [M/Chip Advance]												
		1											

Tag	Element name	Data Card v6.x
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]	
DF 41	DS Management Control [M/Chip Advance]	20

4.16.5 Contact: CVM List - Mastercard, AID A000000042203

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

4.16.6 Contact: Application Tag data, AID A000000042203

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

Tog	Element name	Data Card v6 x
Tag 82	Element name	Data Card v6.x
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 via
		EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported
		BYTE 2:
		b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 04 22 03
87	Application Priority Indicator	03
8C	Card Risk Management Data Object List	9F 02 06 9F 03 06 9F 1A 02 95 05 5F
	1 (CDOL1)	2A 02 9A 03 9C 01 9F 37 04 9F 35 01
		9F 45 02 9F 4C 08 9F 34 03 9F 21 03
		9F 7C 14
8D	Card Risk Management Data Object List	91 0A 8A 02 95 05 9F 37 04 9F 4C 08
05	2 (CDOL2)	
8E	Cardholder Verification Method (CVM)	00 00 00 00 00 00 00 00 00 02 05 42 03 1F 03
	List	
94	Application File Locator (AFL)	08 01 01 00 10 01 02 00 20 01 01 00
94	Application File Locator (AFL)	08 01 01 00 10 01 02 00 20 01 01 00
9F 07	Application Usage Control	FF CO BYTE 1:
		b8 - Domestic cash trans. valid
		b7 - Int'l cash transactions valid
		b6 - Domestic goods valid
		b5 - International goods valid
		b4 - Domestic services valid
		b3 - International services valid
		b2 - ATMs valid b1 - non-ATM terminals valid
		BYTE 2:
		b8 - Domestic cashback allowed
		b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00
9F 10	Issuer Application Data [M/Chip	xx 10 xx
	Advance]	xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	55 53 20 4D 61 65 73 74 72 6F 20 20
		20 20 20 20 - 'US Maestro'
9F 14	Counter 1 Lower Limit [Mastercard]	00
9F 17	Personal Identification Number (PIN)	09
	Try Counter	
9F 23	Counter 1 Upper Limit [Mastercard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	00 04
9F 42	Application Currency Code	08 40 - USD
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
	Application Life Cycle Data Mestarger-1	7C 14 04 10 0B 14 00 01 00 00 12 00 02 59
9F 7E	Application Life Cycle Data [Mastercard]	A0 00 00 00 04 10 10 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00 00
		00 00 00 00 00 00 00 00 00 00 00 00

Tag	Element name	Data Card v6.x
C3	Card Issuer Action Code (Contact) -	
0.5	Decline [M/Chip Advance]	
C4	Card Issuer Action Code (Contact) -	06 50 00
•	Default [M/Chip Advance]	
C5	Card Issuer Action Code (Contact) -	06 FB 00
•••	Online [M/Chip Advance]	
C6	PIN Try Limit [M/Chip Advance]	09
C7	CDOL1 Related Data Length	42
0,	[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
CB	Accumulator 1 Upper Limit [Mastercard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) -	00 00 00
02	Default [M/Chip Advance]	
CE	Card Issuer Action Code (Contactless) -	00 00 00
	Online [M/Chip Advance]	
CF	Card Issuer Action Code (Contactless) -	00 00 00
	Decline [M/Chip Advance]	
D1	Accumulator 1 Currency Conversion	08 40 00 01 01 08 40 00 01 01 08 40
	Table [Mastercard]	00 01 01 08 40 00 01 01 08 40 00 01
		01
D3	Additional Check Table [Mastercard]	00 00 00 FF FF FF FF FF FF FF FF FF
DC	Application Control [M/Chip Advance]	FF FF FF FF FF FF 00 00 00 00 00 00
D5	Application Control [M/Chip Advance]	00 10
D6	Default ARPC Response Code [M/Chip	00 10
D7	Advance]	00 00 00 00 00 00
D7 D9	Application Control [M/Chip Advance]	
DB	Application File Locator (Contactless)	00 00 00 00 00 00 00 00 00
DE DF 02	Log Data Table [M/Chip Advance] 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	08 40 - USD
	[Mastercard]	
DF 17	Accumulator 2 Currency Conversion	08 40 00 01 01 08 40 00 01 01 08 40
	Table [Mastercard]	00 01 01 08 40 00 01 01 08 40 00 01
		01
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	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

Tag	Element name	Data Card v6.x
DF 22	MTA CVM (Contact) [M/Chip Advance]	
DF 23	MTA CVM (Contactless) [M/Chip	00 00 00 00 00 00
DI 20	Advance]	
DF 24	MTA Currency Code [M/Chip Advance]	08 40
DF 25	MTA NoCVM (Contact) [M/Chip	00 00 00 00 00 00
2. 20	Advance]	
DF 26	MTA NoCVM (Contactless) [M/Chip	00 00 00 00 00 00
	Advance]	
DF 27	Number Of Days Offline Limit [M/Chip	99 99
	Advance]	
DF 28	Accumulator 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 29	Accumulator 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2A	Accumulator 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2B	Accumulator 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2C	Counter 1 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2D	Counter 1 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	
DF 2E	Counter 2 CVR Dependency Data	00 00 00
	(Contact) [M/Chip Advance]	
DF 2F	Counter 2 CVR Dependency Data	00 00 00
	(Contactless) [M/Chip Advance]	01
DF 30	Interface Enabling Switch [M/Chip Advance]	01
DF 35	Security Limits Status (Contactless)	00
DF 35	[M/Chip Advance]	
DF 37	Security Limits Status Common [M/Chip	00
01 57	Advance]	
DF 3C	CVR Issuer Discretionary Data	00
	(Contact) [M/Chip Advance]	
DF 3D	CVR Issuer Discretionary Data	00
	(Contactless) [M/Chip Advance]	
DF 3F	Read Record Filter (Contact) [M/Chip	00
	Advance]	
DF 40	Read Record Filter (Contactless)	
	[M/Chip Advance]	
DF 41	DS Management Control [M/Chip	20
	Advance]	

Chapter 5 - ASCII Character Conversion Chart

Dec	Bin	Hex	Char	Dec	Bin	Hex	Char	Dec	Bin	Hex	Char
00	00000000	00	NUL	44	00101100	2C		88	01011000	58	Х
01	00000001	01	SOH	45	00101101	2D	,	89	01011001	59	Y
02	00000010	02	STX	46	00101110	2E	-	90	01011010	5A	Z
03	00000011	03	ETX	47	00101111	2F	/	91	01011011	5B	1
04	00000100	04	EOT	48	00110000	30	0	92	01011100	5C	Ň
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	ЗA	:	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	A	109	01101101	6D	m
22	00010110	16	SYM	66	01000010	42	B	110	01101110	6E	n
23	00010111	17	ETB	67	01000011	43	C	111	01101111	6F	0
24	00011000	18	CAN	68	01000100	44	D	112	01110000	70	р
25	00011001	19 1A	EM	69	01000101	45	E F	113	01110001	71	q
26 27	00011010 00011011	1A 1B	SUB ESC	70 71	01000110	46 47	Г G	114 115	01110010 01110011	72 73	r
28	00011011	1C	FS	72	010001000	47	H	116	01110100	74	s t
20	00011101	1D	GS	73	01001000	40		117	01110100	75	u u
30	00011110	1E	RS	74	01001001	4A	J	118	01110110	76	v
31	00011111	1F	US	75	01001011	4B	ĸ	119	01110111	77	w
32	00100000	20	SP	76	01001100	4C	L	120	01111000	78	x
33	00100001	21	!	77	01001101	4D	M	121	01111001	79	y
34	00100010	22	"	78	01001110	4E	N	122	01111010	7A	z
35	00100011	23	#	79	01001111	4F	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	v				
43	00101011	2B	+	87	01010111	57	W				