



# **B2 Touchless Test Suite (TTS) Summary**

**Version 1.00**

**January 2021**

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## Revision History

Version	Date	Revisions
1.00	January 7, 2021	<ul style="list-style-type: none"><li>• Initial release.</li><li>• This document replaces the final version (1.10) of the TTS Technical Guide. All EMV Tag tables have been removed. Links to B2 MTS and B2 DI Card Collection documentation, which contain the removed information, inserted.</li></ul>



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3.6.3	Contactless: CVM List - Mastercard debit, AID A0000000041010.....	11
3.6.4	Contactless: CVM List - U.S. Maestro, AID A0000000042203.....	12
<b>3.7</b>	<b>USA-Debit Test Card 12 - Discover, DI, 2-AID (U.S. Debit, Discover), English/Spanish/French, USA, USD .....</b>	<b>12</b>
3.7.1	Contact: CVM List - Discover U.S. Debit, AID A0000001524010.....	12
3.7.2	Contact: CVM List - Discover Debit, AID A0000001523010.....	12
3.7.3	Contactless: CVM List - Discover U.S. Debit, AID A0000001524010 .....	12
<b>3.8</b>	<b>UAT-Flash Test Card 01 - Interac, DI, 1-AID(Interac), English/French, CAN, CAD .....</b>	<b>13</b>
3.8.1	Contact Interface: CVM List - Interac, AID A0000002771010 .....	13
3.8.2	Contactless Interface: CVM List - Interac Flash, AID A0000002771010....	13
<b>3.9</b>	<b>JCB-DI Test Card A - JCB, DI, Japanese/English, JPN, JPY, CTLS EMV .....</b>	<b>13</b>
3.9.1	Contact Interface: CVM List - AID A0000000651010 .....	13
3.9.2	Contactless Interface: CVM List - AID A0000000651010.....	13
<b>3.10</b>	<b>UnionPay-QP Test Card QPC1 - DI, Credit, 1-AID, Chinese, CHN, USD .....</b>	<b>14</b>
3.10.1	Contact: CVM List - AID A000000333010102, EMV, 1 <sup>st</sup> GAC ARQC.....	14
3.10.2	Contact: CVM List - AID A000000333010102, Low-Value .....	14
3.10.3	Contact: CVM List - AID A000000333010102, Dual-Currency, Low Value	14
3.10.4	Contactless: CVM List - AID A000000333010102, Debit/Credit.....	14

## Chapter 1 - B2 Touchless Test Suite Summary

### 1.1 B2 Mobile Test Suite (MTS)

The B2 MTS includes two smartphones – an Apple iPhone and a Samsung Galaxy phone. Each is pre-loaded with static device test accounts – including American Express, Discover, Mastercard and Visa.

This allows organizations to test various forms of mobile payments that consumers may use when making purchases.

The Apple® iPhone® is configured with an Apple Wallet™ containing eight card definitions, two from each of the following card brands: American Express; Discover; Mastercard; Visa.

Both the MTS Technical Guide and MTS User Guide can be found at: [B2 MTS Documents](#)

### 1.2 B2 Touchless Dual Interface Test Card Collection

This collection contains 10 of our most popular dual interface test cards, allowing organizations to test EMV contact and contactless credit and debit card transactions for all major payment brands accepted in the U.S.

A summary of the cards is provided in [Chapter 3](#) and a copy of both the summary and full technical documents can be found on our website at: [B2 EMV Test Cards](#)

Combining the card definitions in the Mobile Test Suite and the physical contactless cards from B2's Touchless Dual Interface Test Card Collection, the following card payment brands are represented:



### 1.3 B2 University eLearning Courses

These industry-leading online training courses help educate anyone who is involved in the EMV and contactless payments ecosystem – from beginners to seasoned experts. The courses are taken remotely, at the user's own pace and convenience, providing the ability to grow expertise on critically important aspects of the payment ecosystem.

Purchase of the B2 TTS entitles a student access to two pre-selected online courses.

- Introduction - Payments & EMV
- Contactless Payments

Upon receipt of the student's eMail ID, B2 will enroll them and provide access for 6-months.

Details of all the online courses, including the two included with TTS can be found at: [B2 Online Training - eLearning and virtual training](#)

## Chapter 2 - Apple Wallet™ Card Definitions - Profiles

### 2.1 Phones - Contactless Terminology:

When you tap using a device such as a phone, a device PAN (DPAN) is shared with the merchant instead of your actual Personal Account Number (PAN). This helps keep the PAN information safe as it passes to the card reader.

- “DAN” or “DPAN” – Device Account Number or Device Primary Account Number. This number is unique to the device (phone). Generated by the Payment Network or ‘card’ issuer, it acts as a ‘token’ in place of the actual account number assigned by the card issuer. Amongst others in the payment ecosystem, it is known to and is used by the issuing bank to identify the account to which the transaction should be applied.
- “FPAN” – Funding Primary Account Number” – the number of the issuer’s actual Personal Account Number and equates to the long-existing “PAN”.

In the next section is a list of CVMs pertaining to each card (where applicable) in the Apple Wallet.

More in-depth technical details, including EMV tags for each of these cards, can be found in the [Mobile Test Suite Technical Guide](#).

### 2.2 Apple Wallet™: American Express 1 – English

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

#### 2.2.1 Cardholder Verification Method – A00000025010901, EMV

Cardholder Verification Method List ('5E03 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Signature (paper)	Terminal Supports CVM type	Next CVM
2	No CVM required	Always	Fail

#### 2.2.2 Cardholder Verification Method – A00000025010901, Magstripe

Cardholder Verification Method List ('5E03 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Signature (paper)	Terminal Supports CVM type	Next CVM
2	No CVM required	Always	Fail

### 2.3 Apple Wallet™: American Express 2 – English

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

#### 2.3.1 Cardholder Verification Method – A00000025010901, EMV

Cardholder Verification Method List ('5E03 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Signature (paper)	Terminal Supports CVM type	Next CVM
2	No CVM required	Always	Fail

#### 2.3.2 Cardholder Verification Method – A00000025010901, Magstripe

Cardholder Verification Method List ('5E03 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Signature (paper)	Terminal Supports CVM type	Next CVM
2	No CVM required	Always	Fail

### 2.4 Apple Wallet™: Discover 1 – Debit; English, Spanish, French

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

### 2.5 Apple Wallet™: Discover 2 – Debit; English, Spanish, French

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

### 2.6 Apple Wallet™: Mastercard 1 – Debit (U.S. Maestro); English

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

#### 2.6.1 Cardholder Verification Method – A000000042203, EMV

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

### 2.7 Apple Wallet™: Mastercard 2 – English

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

#### 2.7.1 Cardholder Verification Method – A000000041010, EMV & Magstripe

Cardholder Verification Method List ('4201 1E03 1F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Next CVM
2	Signature (paper)	Terminal Supports CVM type	Fail
3	No CVM required	Terminal Supports CVM type	Fail



**2.8 Apple Wallet™: Visa 1 – Debit (Visa Electron), Brazil**

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

**2.9 Apple Wallet™: Visa 2 – Taiwan**

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

## Chapter 3 - Touchless DI Test Card Collection - Profiles

This collection of cards contains 10 of our most popular dual interface test cards, allowing organizations to test EMV contact and contactless credit and debit card transactions for all major payment brands accepted in the U.S.



Each of the cards is a duplicate of another found in a different set from B2. The B2 sets from which these cards are collected are: UAT USA EMV™ Test Card Set; USA Debit EMV™ Test Card Set; UAT Flash EMV™ Test Card Set, JCB Dual Interface EMV™ Test Card Set; UnionPay QuickPass Test Card Set \*.

\* UnionPay deemed the QPC1 test card (found in this Collection) was no longer required for certification. It does remain a valid test card for the UnionPay brand.

	Test Card 01	Test Card 06	Test Card 12
Original Card Set	UAT-USA	UAT-USA	UAT-USA
Brand	Visa	Mastercard	American Express
Type	Credit	Credit	Credit
AID	A0000000031010	A0000000041010	A000000025010402
PAN	476173*****0119	541333*****4111	374245*****51006
Expiry Date	12/2022	12/2022	12/2024
Service Code	201	201	201
Interface	Contact, Contactless, MSR	Contact, Contactless, MSR	Contact, Contactless, MSR
CVM	<a href="#">See card definition</a>	<a href="#">See card definition</a>	<a href="#">See card definition</a>
Approval Amount	\$10.00	\$20.00	\$68.00
Issuer Country Code	840 - USA	840 - USA	840 - USA
Application Currency Code	840 - USD	840 - USD	840 - USD
Language	'en' - English	'en' - English	'en' - English

	Test Card 15	Test Card 01	Test Card 05
Original Card Set	UAT-USA	USA-Debit	USA-Debit
Brand	Discover	Visa	Mastercard
Type	Credit	Global / U.S. Common	Global / Common
AID	A0000001523010	A0000000031010 A0000000980840	A0000000041010 A0000000042203
PAN	651000*****0133	476173*****0135	541333*****9130
Expiry Date	12/2023	12/2022	12/2022
Service Code	201	201	201
Interface	Contact, Contactless, MSR	Contact, Contactless, MSR	Contact, Contactless, MSR
CVM	<a href="#">See card definition</a>	<a href="#">See card definition</a>	<a href="#">See card definition</a>
Approval Amount	\$79.00	\$10.00	\$20.00
Issuer Country Code	840 - USA	840 - USA	840 - USA
Application Currency Code	840 - USD	840 - USD	840 - USD
Language	'en' - English	'en' - English	'en' - English

	Test Card 12	Test Card 01
Original Card Set	USA-Debit	UAT-Flash
Brand	Discover	Interac
AID	A0000001524010 A0000001523010	A0000002771010
PAN	601197*****0005	196730*****8644
Expiry Date	12/2023	12/2022
Service Code	201	220
Interface	Contactless, Contact, MSR	Contactless, Contact, MSR
CVM	<a href="#">See card definition</a>	<a href="#">See card definition</a>
Approval Amount	\$79.00	\$10.00
Issuer Country Code	840 - USA	124 - CAN
Application Currency Code	840 - USD	124 -CAD
Language	'enesfr' (English, Spanish, French)	'enfr' - English, French

	Test Card A	Test Card QPC1
Original Card Set	JCB-Dual Interface	UnionPay-QP
Brand	JCB	UICS Credit
AID	A0000000651010	A000000333010102
PAN	3569 9900 1008 2211	621094***8053
Expiry Date	12/2021	10/2030
Service Code	-	201
Interface	Contact, Contactless, MSR	Contact, Contactless, MSR
CVM	<a href="#">See card definition</a>	<a href="#">See card definition</a>
Approval Amount	\$10.00	\$10.00
Issuer Country Code	392 - JPN	156 - CHN
Application Currency Code	392 - JPY	840 - USD
Language	'jaen' - Japanese, English	'zh' - Chinese

### 3.1 UAT-USA Test Card 01 - Visa, DI, Credit, English, USA, USD

#### 3.1.1 Cardholder Verification Method List

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

### 3.2 UAT-USA Test Card 06 - Mastercard, DI, Credit, English, USA, USD

#### 3.2.1 Cardholder Verification Method List

Cardholder Verification Method List ('4201 5E03 1F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Next CVM
2	Signature (paper)	Terminal supports CVM type	Next CVM
3	No CVM required	Terminal supports CVM type	Fail

#### 3.2.2 Cardholder Verification Method List (CL)

Cardholder Verification Method List ('5E03 1F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Signature (paper)	Terminal supports CVM type	Next CVM
2	No CVM required	Terminal supports CVM type	Fail

**3.3 UAT-USA Test Card 12 - American Express, DI, Credit, English, USA, USD****3.3.1 Cardholder Verification Method List**

Cardholder Verification Method List ('4201 4203 5E03 5F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	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	Next CVM

**3.3.2 Cardholder Verification Method List (CL)**

Cardholder Verification Method List ('4201 5E03 1F02')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Next CVM
2	Signature (paper)	Terminal supports CVM type	Next CVM
3	No CVM required	Not Unattended Cash, Manual Cash or Cashback	Fail

**3.4 UAT-USA Test Card 15 - Discover, Credit, English, USA, USD****3.4.1 Cardholder Verification Method List**

Cardholder Verification Method List ('4203 5E03 1F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Terminal supports CVM type	Next CVM
2	Signature (paper)	Terminal supports CVM type	Next CVM
3	No CVM required	Terminal supports CVM type	Fail

**3.4.2 Cardholder Verification Method List (CL)**

Cardholder Verification Method List ('4203 5E03 1F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Terminal supports CVM type	Next CVM
2	Signature (paper)	Terminal supports CVM type	Next CVM
3	No CVM required	Terminal supports CVM type	Fail

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

#### 3.5.1 Contact: CVM List - Visa Debit, AID A000000031010

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

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

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

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

#### 3.6.1 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

#### 3.6.2 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

#### 3.6.3 Contactless: CVM List - Mastercard debit, AID A000000041010

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

#### 3.6.4 Contactless: CVM List - U.S. Maestro, AID A000000042203

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

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

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

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

#### 3.7.2 Contact: CVM List - Discover Debit, AID A0000001523010

Cardholder Verification Method List ('0201 0203 1E03 1F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Next CVM
2	Online PIN	Terminal supports CVM type	Fail
3	Signature (paper)	Terminal supports CVM type	Fail
4	No CVM required	Terminal supports CVM type	Fail

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

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

### 3.8 UAT-Flash Test Card 01 - Interac, DI, 1-AID(Interac), English/French, CAN, CAD

#### 3.8.1 Contact Interface: CVM List - Interac, AID A0000002771010

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

#### 3.8.2 Contactless Interface: CVM List - Interac Flash, AID A0000002771010

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

### 3.9 JCB-DI Test Card A - JCB, DI, Japanese/English, JPN, JPY, CTLS EMV

#### 3.9.1 Contact Interface: CVM List - AID A0000000651010

Cardholder Verification Method List ('4403 4103 1E03 0203 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline PIN	Terminal supports CVM type	Next CVM
2	Offline Plaintext PIN	Terminal supports CVM type	Next CVM
3	Signature (paper)	Terminal supports CVM type	Fail
4	Online PIN	Terminal supports CVM type	Fail
5	No CVM required	Always	Fail

#### 3.9.2 Contactless Interface: CVM List - AID A0000000651010

Cardholder Verification Method List ('1E03 0203 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Signature (paper)	Terminal supports CVM type	Fail
2	Online PIN	Terminal supports CVM type	Fail
3	No CVM required	Always	Fail



**3.10 UnionPay-QP Test Card QPC1 - DI, Credit, 1-AID, Chinese, CHN, USD****3.10.1 Contact: CVM List - AID A00000333010102, EMV, 1<sup>st</sup> GAC ARQC**

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

**3.10.2 Contact: CVM List - AID A00000333010102, Low-Value**

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

**3.10.3 Contact: CVM List - AID A00000333010102, Dual-Currency, Low Value**

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

**3.10.4 Contactless: CVM List - AID A00000333010102, Debit/Credit**

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