



Canada
EMV™ Test Card Set

Version 1.90

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Powered by B2»

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Revision History

Version	Date	Updated By	Revisions
0.01	04-Aug-2009	B2PS	Initial release.
0.02	17-Mar-2010	B2PS	Update card descriptions.
0.03	01-May-2011	B2PS	Update MasterCard Profiles
0.04	11-Jun-2011	B2PS	Add note to cards 5 & 6 regarding transaction amounts
0.05	05-Nov-2013	B2PS	Logo change, cosmetic changes to tables
0.06	24-Jan-2014	B2PS	Transaction behaviour modified - Cards 5 & 6, MasterCard Host Simulator. Corrections to various EMV Tag values (all cards). e.g. expiry dates.
1.40	19-Feb-2014	B2PS	Card images updated to reflect v4.0: All cards' expiry dates set to 1218.
1.41	21-Apr-2014	B2PS	MC tests generate Tag 8A, no 91 on \$25 / \$40 transaction
1.42	22-Aug-2014	B2PS	Rename document to indicate 'International' test set; Modification to wording in chapter 1 to indicate 'EMV tags' rather than 'fields'
1.43	24-Sep-2014	B2PS	Modified wording in Test Cards 05, 06 to how transaction amounts of \$25.00 and \$40.00 proceed.
1.50	17-Nov-2014	B2PS	Renamed to "Canada EMV Test Card Set". Added table summarizing the test card details. Modified Test Card 05, 06 wording to remove dollar amounts. Used "xx xx ..." to signify tag values that change with use.
1.60	14-Oct-2015	B2PS	Improved card descriptive text, miscellaneous Tag corrections to all Visa and Interac cards
1.70	19-Oct-2015	B2PS	Tag updates to all MasterCard cards - now v4.2.
1.80	30-Aug-2016	B2PS	Transaction Values added Tag 8E (CVM) data added for each card TOC formatting adjusted for readability with new CVM data Formatting changes to improve consistency across docs Title page made consistent with other documents Layout made suitable for duplex printing Added PINBlock warning text
1.90	5-Jan-2018	B2PS	<ul style="list-style-type: none"> • TC05, TC06 - Approval Amount changed to \$120 • "MasterCard" replaced with "Mastercard" where appropriate

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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 *****

Chapter 1 - B2 Canada EMV Test Card Profiles

The Canada EMV™ Test Card Set includes ten cards defined as follows.

	Test Card 01	Test Card 02	Test Card 03
Brand	Visa	Visa	Visa
AID	A0000000031010	A0000000031010	A0000000031010
PAN	4761 7390 0101 0010	4761 7390 0101 0010	4761 7390 0101 0010
Expiry Date	12/2018	12/2018	12/2018
Service Code	201	201	201
Interface	Contact, MSR	Contact, MSR	Contact, MSR
CVM	Signature, NO PIN See Card Definition	Signature, NO PIN See Card Definition	Offline Plaintext PIN, Signature See Card Definition
Approval Amount	\$10.00	\$10.00	\$10.00
Issuer Country Code	124 (Canada)	124 (Canada)	124 (Canada)
Currency Code	124 (CAD)	124 (CAD)	124 (CAD)
Language	'ee' – Bad Language	'fr' – French	'en' – English
Application Confirmation	Yes	No	No
Card Purpose	Bad Language Appl. Confirmation NO PIN	French NO PIN	English Offline Plaintext PIN
Card Version	v4.2	v4.2	v4.2

	Test Card 04	Test Card 05	Test Card 06
Brand	Visa	Mastercard	Mastercard
AID	A0000000031010	A0000000041010	A0000000041010
PAN	4761 7390 0101 0010	5413 3300 8901 0434	5413 3300 8901 0434
Expiry Date	12/2018	12/2018	12/2018
Service Code	201	201	201
Interface	Contact, MSR	Contact, MSR	Contact, MSR
CVM	Offline Plaintext PIN, Signature See Card Definition	Offline Plaintext PIN See Card Definition	Offline Plaintext PIN See Card Definition
Approval Amount	\$10.00	\$120.00	\$120.00
Issuer Country Code	124 (Canada)	124 (Canada)	124 (Canada)
Currency Code	124 (CAD)	124 (CAD)	124 (CAD)
Language	'fr' – French	'en' – English	'fr' – French
Application Confirmation	No	No	No
Card Purpose	French Offline Plaintext PIN	English ARPC Verify Fails	French ARPC Verify Fails
Card Version	v4.2	v4.2	v4.2

	Test Card 07	Test Card 08	Test Card 09
Brand	Interac	Interac	Interac
AID	A0000002771010	A0000002771010	A0000002771010
PAN	4506 4450 0693 1933	4506 4450 0693 1933	4506 3644 0003 8106
Expiry Date	12/2018	12/2018	12/2018
Service Code	220	220	220
Interface	Contact, MSR	Contact, MSR	Contact, MSR
CVM	Offline Plaintext PIN See Card Definition	Offline Plaintext PIN See Card Definition	Offline Plaintext PIN See Card Definition
Approval Amount	\$10.00	\$10.00	\$10.00
Issuer Country Code	124 (Canada)	124 (Canada)	124 (Canada)
Currency Code	124 (CAD)	124 (CAD)	124 (CAD)
Language	'en' – English	'fr' – French	'en' – English
Application Confirmation	No	No	No
Card Purpose	English Interac Debit BIN 450644	French Interac Debit BIN 450644	English Interac Debit BIN 450636
Card Version	v4.2	v4.2	v4.2

	Test Card 10
Brand	Interac
AID	A0000002771010
PAN	4506 3644 0003 8106
Expiry Date	12/2018
Service Code	220
Interface	Contact, MSR
CVM	Offline Plaintext PIN See Card Definition
Approval Amount	\$10.00
Issuer Country Code	124 (Canada)
Currency Code	124 (CAD)
Language	'fr' – French
Application Confirmation	No
Card Purpose	French Interac Debit BIN 450636
Card Version	v4.2

1.1 Test Card 01 – Visa, NO PIN, Invalid Language, Cardholder Confirmation

Visa NO PIN CVM card. The card has an invalid language and requires cardholder confirmation.

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

1.1.1 Cardholder Verification Method List – AID (A0000000031010)

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

1.1.2 Tag List

* Tag value changes with card usage

Tag	Element name	Data	v4.2
50	Application Label	56 49 53 41 20 43 52 45 44 49 54 ('VISA CREDIT')	
57	Track 2 Equivalent Data	47 61 73 90 01 01 00 10 D1 81 22 01 11 43 87 80 89 62 9F	
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 00 10	
5F 20	Cardholder Name	54 65 73 74 2F 43 61 72 64 20 30 31 20 20 20 20 20 20 20 20 20 20 20 20 20 20 ('Test/Card 01 ')	
5F 24	Application Expiration Date	18 12 31	
5F 25	Application Effective Date	xx xx xx	
5F 28	Issuer Country Code	01 24 (Canada)	
5F 2D	Language Preference	65 65 ('ee' – Invalid language)	
5F 30	Service Code	02 01	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile	5C 00	
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10	
87	Application Priority Indicator	81	
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 1E 03 02 03 1F 00	
8F	Certification Authority Public Key Index	92	

Tag	Element name	Data	v4.2
90	Issuer Public Key Certificate	3C 96 F7 65 8F BC 29 A2 02 F1 91 46 BD E9 21 66 B0 F6 22 1B BC CB 02 E3 26 71 0B 9E 22 9D 16 FA E9 AD 0C 87 4C 06 85 91 6E 19 F0 E3 26 93 EE 20 1B CE 23 59 50 9A 6D 65 72 F8 EC 3F C3 73 12 6B 34 3F 9C B8 15 3D 61 B7 EA B2 D4 2D E1 9D 56 08 31 85 A0 3D D1 4C 26 8D 40 DF 08 35 C5 5E AB FA 38 ED 28 BC E4 2C D0 01 3D A9 4F 80 05 18 B7 53 C2 46 EF FB A0 8F D2 02 9B AD 5D FC F0 DA F0 7B 7D 80 1C 46 5F FD 25 2C 70 B9 21 53 B3 30 D9 5D CA 2F A1 FA AE 2D 01 68 A4 EA 8B 47 5C D8 05 DC 32 AA 96 4C 17 BF CD 2C D5 D0 30 9A B0 EA 76 1B	
92	Issuer Public Key Remainder	50 DA 20 DD A8 95 3B 69 3F ED 84 36 68 31 BA 1E EA 97 F7 8F 79 2A CF 8C B9 8F DF 01 49 A7 B7 8F DA 1C 49 67	
93	Signed Static Application Data	32 D2 28 60 2B 73 81 98 31 49 FD C6 04 82 CA 4E 47 7E B4 BA 43 85 F7 F9 80 30 89 C3 7D 5D 29 08 8F B0 ED E0 CA 89 57 31 41 95 5A 1A DC 56 06 2B 4A FE 3B 45 83 7D D3 7D 2F CB FB 4F BF 81 D0 DA 51 3B 3C F2 2D 70 D0 A2 C5 01 E8 CB FB 2A E5 85 F8 61 11 1D CD F0 B8 93 B2 B3 C7 46 C8 74 D8 E2 6E CA E2 F1 92 8F BA 08 BF 8F D6 C9 EF CC EB BA 78 88 32 07 30 6E 62 22 BC F7 0D 26 B5 3C A7 7B AC 19 F0 1A 5E EE 48 C4 8D BE 41 92 5F F9 9B 79 9D 74 64 22 D0 39 25 75 CD 9C 78 3F 68 29 07 65 0F 41 23 19 B2 33 DE 1C D1 2A F6 DC 2A C2 39 D3	
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 10 06 06 00 B0 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 96	
9F 0D	Issuer Action Code - Default	F0 40 00 88 00	
9F 0E	Issuer Action Code - Denial	00 10 00 00 00	
9F 0F	Issuer Action Code - Online	F0 40 00 98 00	
9F 10	Issuer Application Data [VSDC]	xx xx xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	56 69 73 61 20 43 72 65 64 69 74 ('Visa Credit')	
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 37 35 38 39 30 30 38 39 33 30 30 30 30 30 30 30 30 30 30 30 30 30 30	

Tag	Element name	Data	v4.2
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	4C 64 4D 45 62 28 36 84 24 0C 84 B3 3B 50 15 8F B9 4C 9F 34 33 2A EE 33 0A 15 D3 16 90 14 47 53 CA C6 C9 2E 89 31 7D 16 CD 76 16 AA C7 A1 E3 C0 87 3E C6 F1 2B 0B 5F E4 9A F2 7C EA A8 CF C6 BA D0 A3 E1 10 9D 6F 37 0E 3E 67 D4 25 EE DB B2 3A 10 94 96 59 58 7D 1B 87 74 E6 58 A5 6A E2 E3 AA 7B B2 6F 13 5E 9E 38 36 BE 84 14 AD 0D BE EA 38 B0 F5 57 CE 7B 51 D4 8F C9 A3 66 C1 62 5F AA 92 F5 F8 C1 FA 9F 0E A7 20 AB 60 7D E7 AA 8C 37 99 03 29 2C D2 6D B6 4D C9 99 A8 4A 15 4B FA 32 E6 00 58 F2 53 19 9B C7 11 C9 5E E9 34 C7 1A 1F 58	
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]	01 24 (CAD)	
9F 52	Application Default Action [VSDC VIS 1.5]	40 00 00 00 00 00	
9F 53	Consecutive Transaction Limit (International) [VSDC]	03	
9F 54	Cumulative Total Transaction Amount Limit [VSDC]	00 00 00 02 00 00	
9F 56	Issuer Authentication Indicator [VSDC]	80	
9F 57	Issuer Country Code [VSDC]	01 24 (Canada)	
9F 58	Consecutive Transaction Counter Limit [VSDC]	03	
9F 59	Consecutive Transaction Counter Upper Limit [VSDC]	07	
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 04 00 00	
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	07	
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	10 00 D0 00	
9F 6D	VLP Reset Threshold [VSDC]	00 00 00 00 00 00	
9F 77	VLP Funds Limit [VSDC]	00 00 00 00 00 00	
9F 78	VLP Single Transaction Limit [VSDC]	00 00 00 00 00 00	
9F 79	VLP Available Funds [VSDC]	00 00 00 00 00 00	
BF 55	Contactless Counters Data Template	DF 61 06 00 00 00 00 00 00 DF 71 06 00 00 00 00 00 00 DF 41 06 00 00 00 00 00 00 DF 51 06 00 00 00 00 00 00 DF 11 01 00 DF 21 01 03 DF 31 01 07	

Tag	Element name	Data	v4.2
BF 56	Counters Data Template	DF 11 01 03 DF 21 01 03 DF 31 01 07	
BF 57	International Counters Data Template	DF 11 01 03 DF 21 01 03 DF 31 01 07 DF 51 01 03	
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00 DF 21 06 00 00 00 02 00 00 DF 31 06 00 00 00 04 00 00	
BF 5B	Application Internal Data Template	DF 01 02 00 00	

1.2 Test Card 02 – Visa, NO PIN, French

French Visa NO PIN CVM card.

If French is supported by the POS, French should be auto-selected. If the POS supports only one language and it's not French, the POS language should be auto-selected. If the POS supports multiple languages but not French, the list of POS languages should be displayed for cardholder selection.

Once selected, cardholder prompts and the customer receipt should be in the selected language.

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

1.2.1 Cardholder Verification Method List – AID (A0000000031010)

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

1.2.2 Tag List

* Tag value changes with card usage

Tag	Element name	Data	v4.2
50	Application Label	56 49 53 41 20 43 52 45 44 49 54 ('VISA CREDIT')	
57	Track 2 Equivalent Data	47 61 73 90 01 01 00 10 D1 81 22 01 11 43 87 80 89 62 9F	
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 00 10	
5F 20	Cardholder Name	54 65 73 74 2F 43 61 72 64 20 30 32 20 20 20 20 20 20 20 20 20 20 20 20 ('Test/Card 02')	
5F 24	Application Expiration Date	18 12 31	
5F 25	Application Effective Date	xx xx xx	
5F 28	Issuer Country Code	01 24 (Canada)	
5F 2D	Language Preference	66 72 ('fr' - French)	
5F 30	Service Code	02 01	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile	5C 00	

Tag	Element name	Data	v4.2
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	
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 1E 03 02 03 1F 00	
8F	Certification Authority Public Key Index	92	
90	Issuer Public Key Certificate	3C 96 F7 65 8F BC 29 A2 02 F1 91 46 BD E9 21 66 B0 F6 22 1B BC CB 02 E3 26 71 0B 9E 22 9D 16 FA E9 AD 0C 87 4C 06 85 91 6E 19 F0 E3 26 93 EE 20 1B CE 23 59 50 9A 6D 65 72 F8 EC 3F C3 73 12 6B 34 3F 9C B8 15 3D 61 B7 EA B2 D4 2D E1 9D 56 08 31 85 A0 3D D1 4C 26 8D 40 DF 08 35 C5 5E AB FA 38 ED 28 BC E4 2C D0 01 3D A9 4F 80 05 18 B7 53 C2 46 EF FB A0 8F D2 02 9B AD 5D FC F0 DA F0 7B 7D 80 1C 46 5F FD 25 2C 70 B9 21 53 B3 30 D9 5D CA 2F A1 FA AE 2D 01 68 A4 EA 8B 47 5C D8 05 DC 32 AA 96 4C 17 BF CD 2C D5 D0 30 9A B0 EA 76 1B	
92	Issuer Public Key Remainder	50 DA 20 DD A8 95 3B 69 3F ED 84 36 68 31 BA 1E EA 97 F7 8F 79 2A CF 8C B9 8F DF 01 49 A7 B7 8F DA 1C 49 67	
93	Signed Static Application Data	32 D2 28 60 2B 73 81 98 31 49 FD C6 04 82 CA 4E 47 7E B4 BA 43 85 F7 F9 80 30 89 C3 7D 5D 29 08 8F B0 ED E0 CA 89 57 31 41 95 5A 1A DC 56 06 2B 4A FE 3B 45 83 7D D3 7D 2F CB FB 4F BF 81 D0 DA 51 3B 3C F2 2D 70 D0 A2 C5 01 E8 CB FB 2A E5 85 F8 61 11 1D CD F0 B8 93 B2 B3 C7 46 C8 74 D8 E2 6E CA E2 F1 92 8F BA 08 BF 8F D6 C9 EF CC EB BA 78 88 32 07 30 6E 62 22 BC F7 0D 26 B5 3C A7 7B AC 19 F0 1A 5E EE 48 C4 8D BE 41 92 5F F9 9B 79 9D 74 64 22 D0 39 25 75 CD 9C 78 3F 68 29 07 65 0F 41 23 19 B2 33 DE 1C D1 2A F6 DC 2A C2 39 D3	
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 10 06 06 00 B0 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 96	
9F 0D	Issuer Action Code - Default	F0 40 00 88 00	
9F 0E	Issuer Action Code - Denial	00 10 00 00 00	
9F 0F	Issuer Action Code - Online	F0 40 00 98 00	
9F 10	Issuer Application Data [VSDC]	xx xx xx xx xx xx xx *	

Tag	Element name	Data	v4.2
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	56 69 73 61 20 43 72 65 64 69 74 ('Visa Credit')	
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 37 35 38 39 30 30 38 39 33 30 30 30 30 30 30 30 30 30 30 30 30 30 30	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *	
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	5D E3 66 AF 98 81 F0 93 E0 24 35 77 2C 7A B9 9D 7B 54 A6 AD 90 07 D6 B4 88 08 F0 57 19 99 EC 2D A1 DB E6 A9 5C 51 31 CE F0 0C A8 2D 9A 77 7D 80 64 22 2C 4A 1F 67 09 1E AF 59 8C 47 60 CB DF D9 76 9A 6C 2B 0F C1 D9 16 BB B2 9D AD 5E 05 B7 3C 1A D2 4C 4C 43 9B B3 70 73 41 45 29 7F 16 9D 85 E8 87 C5 4B 83 31 56 C7 69 F0 DA D9 28 A6 AC 9F 9D 42 02 5F 3C E1 61 77 B6 F2 CC 28 F3 B1 1E 01 59 35 A3 62 61 A6 02 18 C8 A8 CC DA 2D 6C 3B ED 20 1E B5 70 30 2F DF 48 9A 7C EE 6E 2A 2F E7 C8 24 BB 32 D4 B0 DC 56 C5 5E ED DD 4B 84 B8 3B F4	
9F 47	ICC Public Key Exponent	03	
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04	
9F 4A	Static Data Authentication Tag List	82	
9F 51	Application Currency Code [VSDC]	01 24 (CAD)	
9F 52	Application Default Action [VSDC VIS 1.5]	40 00 00 00 00 00	
9F 53	Consecutive Transaction Limit (International) [VSDC]	03	
9F 54	Cumulative Total Transaction Amount Limit [VSDC]	00 00 00 02 00 00	
9F 56	Issuer Authentication Indicator [VSDC]	80	
9F 57	Issuer Country Code [VSDC]	01 24 (Canada)	
9F 58	Consecutive Transaction Counter Limit [VSDC]	03	
9F 59	Consecutive Transaction Counter Upper Limit [VSDC]	07	
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 04 00 00	

Tag	Element name	Data v4.2
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	07
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	10 00 D0 00
9F 6D	VLP Reset Threshold [VSDC]	00 00 00 00 00 00
9F 77	VLP Funds Limit [VSDC]	00 00 00 00 00 00
9F 78	VLP Single Transaction Limit [VSDC]	00 00 00 00 00 00
9F 79	VLP Available Funds [VSDC]	00 00 00 00 00 00
BF 55	Contactless Counters Data Template	DF 61 06 00 00 00 00 00 00 DF 71 06 00 00 00 00 00 00 DF 41 06 00 00 00 00 00 00 DF 51 06 00 00 00 00 00 00 DF 11 01 00 DF 21 01 03 DF 31 01 07
BF 56	Counters Data Template	DF 11 01 03 DF 21 01 03 DF 31 01 07
BF 57	International Counters Data Template	DF 11 01 03 DF 21 01 03 DF 31 01 07 DF 51 01 03
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00 DF 21 06 00 00 00 02 00 00 DF 31 06 00 00 00 04 00 00
BF 5B	Application Internal Data Template	DF 01 02 00 00

1.3 Test Card 03 – Visa, PIN=1234, English

English Visa Offline Plaintext PIN card.

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

1.3.1 Cardholder Verification Method List – AID (A0000000031010)

Cardholder Verification Method List ('0103 1E03 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Terminal supports CVM type	Fail
2	Signature (paper)	Terminal supports CVM type	Fail
3	No CVM required	Always	Fail

1.3.2 Tag List

* Tag value changes with card usage

Tag	Element name	Data v4.2
50	Application Label	56 49 53 41 20 43 52 45 44 49 54 ('VISA CREDIT')
57	Track 2 Equivalent Data	47 61 73 90 01 01 00 10 D1 81 22 01 11 43 87 80 89 62 9F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 00 10
5F 20	Cardholder Name	54 65 73 74 2F 43 61 72 64 20 30 33 20 20 20 20 20 20 20 20 20 20 20 20 ('Test/Card 03 ')
5F 24	Application Expiration Date	18 12 31

Tag	Element name	Data	v4.2
5F 25	Application Effective Date	xx xx xx	
5F 28	Issuer Country Code	01 24 (Canada)	
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	5C 00	
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	
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 01 03 1E 03 1F 00	
8F	Certification Authority Public Key Index	92	
90	Issuer Public Key Certificate	3C 96 F7 65 8F BC 29 A2 02 F1 91 46 BD E9 21 66 B0 F6 22 1B BC CB 02 E3 26 71 0B 9E 22 9D 16 FA E9 AD 0C 87 4C 06 85 91 6E 19 F0 E3 26 93 EE 20 1B CE 23 59 50 9A 6D 65 72 F8 EC 3F C3 73 12 6B 34 3F 9C B8 15 3D 61 B7 EA B2 D4 2D E1 9D 56 08 31 85 A0 3D D1 4C 26 8D 40 DF 08 35 C5 5E AB FA 38 ED 28 BC E4 2C D0 01 3D A9 4F 80 05 18 B7 53 C2 46 EF FB A0 8F D2 02 9B AD 5D FC F0 DA F0 7B 7D 80 1C 46 5F FD 25 2C 70 B9 21 53 B3 30 D9 5D CA 2F A1 FA AE 2D 01 68 A4 EA 8B 47 5C D8 05 DC 32 AA 96 4C 17 BF CD 2C D5 D0 30 9A B0 EA 76 1B	
92	Issuer Public Key Remainder	50 DA 20 DD A8 95 3B 69 3F ED 84 36 68 31 BA 1E EA 97 F7 8F 79 2A CF 8C B9 8F DF 01 49 A7 B7 8F DA 1C 49 67	
93	Signed Static Application Data	6F 72 29 95 54 16 D6 7C 87 28 45 23 D6 83 29 48 46 5B A4 EA 0A 5C 9F A2 79 00 65 B3 0C F7 BC 2B 53 04 B0 3A C7 1B 85 CA F8 FB 4C 6B E0 91 D6 42 3E DC 35 36 F0 91 79 EB E6 2C D1 9E 37 7A A9 81 4D EC 66 41 80 E3 E4 92 8C F9 19 AE 8F F0 D0 44 EE FE 0E BE ED 3C 1D CF 4F AD A6 1E CA AC 1C A5 62 5C 14 8A 88 13 BE 28 90 C2 24 B9 31 09 BE 24 4C 4F EE A7 41 2D DC 7D AB F9 29 66 1F 34 5D 07 9E E9 22 81 E3 11 6B 93 6B E3 03 66 AA 10 12 77 C1 54 B3 1D 4B 09 5D 6C 73 49 AD 17 E0 F8 EE DF 9B 98 DA 08 88 72 BB E5 FD E6 27 6F 49 53 B0 63	
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 10 06 06 00 B0 01 01 00	

Tag	Element name	Data	v4.2
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 96	
9F 0D	Issuer Action Code - Default	00 00 00 00 00	
9F 0E	Issuer Action Code - Denial	00 00 80 00 00	
9F 0F	Issuer Action Code - Online	00 00 00 00 00	
9F 10	Issuer Application Data [VSDC]	xx xx xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	56 69 73 61 20 43 72 65 64 69 74 (`Visa Credit`)	
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 37 35 38 39 30 30 38 39 33 30 30 30 30 30 30 30 30 30 30 30 30 30 30	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *	
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	A5 ED EA C4 96 C6 3D 18 4E F3 C4 E0 49 E0 06 53 E3 C3 CC 57 4F CC 45 75 25 47 36 FB 5E 8A 6D E5 EC E5 9D 89 C3 14 5B B7 A1 CA CD A8 21 70 03 B1 A5 5D 49 BA 38 47 15 9F F8 C4 55 44 2F BC B8 F6 E4 9C 8A 98 19 5D 15 48 68 AF 1C 63 4F 39 92 0D 71 24 A1 4C 59 31 66 5C A9 4A D6 3C CB F7 22 36 3A 28 4F BE 5D 1B 2F 57 8C 4A 4A 2D B2 D7 75 E6 CE 05 4A C7 C4 53 D4 5A CD 20 B1 B4 B2 42 B8 11 7D 2A E5 3A 87 F2 D4 60 3F 95 19 68 2F 65 14 FB 52 23 2A 3D C6 37 12 35 A1 FE C5 8D D8 65 F9 57 DF E0 DE 66 30 44 BE C4 15 72 8E B5 FD 2F 93 6F	
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]	01 24 (CAD)	
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00 00 00	
9F 53	Consecutive Transaction Limit (International) [VSDC]	03	
9F 54	Cumulative Total Transaction Amount Limit [VSDC]	00 00 00 02 00 00	
9F 56	Issuer Authentication Indicator [VSDC]	00	
9F 57	Issuer Country Code [VSDC]	01 24 (Canada)	
9F 58	Consecutive Transaction Counter Limit [VSDC]	03	

Tag	Element name	Data	v4.2
9F 59	Consecutive Transaction Counter Upper Limit [VSDC]	07	
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 04 00 00	
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	07	
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	10 00 D0 00	
9F 6D	VLP Reset Threshold [VSDC]	00 00 00 00 00 00	
9F 77	VLP Funds Limit [VSDC]	00 00 00 00 00 00	
9F 78	VLP Single Transaction Limit [VSDC]	00 00 00 00 00 00	
9F 79	VLP Available Funds [VSDC]	00 00 00 00 00 00	
BF 55	Contactless Counters Data Template	DF 61 06 00 00 00 00 00 00 DF 71 06 00 00 00 00 00 00 DF 41 06 00 00 00 00 00 00 DF 51 06 00 00 00 00 00 00 DF 11 01 00 DF 21 01 03 DF 31 01 07	
BF 56	Counters Data Template	DF 11 01 02 DF 21 01 03 DF 31 01 07	
BF 57	International Counters Data Template	DF 11 01 02 DF 21 01 03 DF 31 01 07 DF 51 01 02	
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00 DF 21 06 00 00 00 02 00 00 DF 31 06 00 00 00 04 00 00	
BF 5B	Application Internal Data Template	DF 01 02 00 00	

1.4 Test Card 04 – Visa, PIN=1234, French

French Visa Offline Plaintext PIN card.

If French is supported by the POS, French should be auto-selected. If the POS supports only one language and it's not French, the POS language should be auto-selected. If the POS supports multiple languages but not French, the list of POS languages should be displayed for cardholder selection.

Once selected, cardholder prompts and the customer receipt should be in the selected language.

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

1.4.1 Cardholder Verification Method List – AID (A0000000031010)

Cardholder Verification Method List ('0103 1E03 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Terminal supports CVM type	Fail
2	Signature (paper)	Terminal supports CVM type	Fail
3	No CVM required	Always	Fail

1.4.2 Tag List

* Tag value changes with card usage

Tag	Element name	Data	v4.2
50	Application Label	56 49 53 41 20 43 52 45 44 49 54 ('VISA CREDIT')	
57	Track 2 Equivalent Data	47 61 73 90 01 01 00 10 D1 81 22 01 11 43 87 80 89 62 9F	
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 00 10	
5F 20	Cardholder Name	54 65 73 74 2F 43 61 72 64 20 30 34 20 20 20 20 20 20 20 20 20 20 20 20 20 ('Test/Card 04 ')	
5F 24	Application Expiration Date	18 12 31	
5F 25	Application Effective Date	xx xx xx	
5F 28	Issuer Country Code	01 24 (Canada)	
5F 2D	Language Preference	66 72 ('fr' - French)	
5F 30	Service Code	02 01	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile	5C 00	
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	
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 01 03 1E 03 1F 00	
8F	Certification Authority Public Key Index	92	
90	Issuer Public Key Certificate	3C 96 F7 65 8F BC 29 A2 02 F1 91 46 BD E9 21 66 B0 F6 22 1B BC CB 02 E3 26 71 0B 9E 22 9D 16 FA E9 AD 0C 87 4C 06 85 91 6E 19 F0 E3 26 93 EE 20 1B CE 23 59 50 9A 6D 65 72 F8 EC 3F C3 73 12 6B 34 3F 9C B8 15 3D 61 B7 EA B2 D4 2D E1 9D 56 08 31 85 A0 3D D1 4C 26 8D 40 DF 08 35 C5 5E AB FA 38 ED 28 BC E4 2C D0 01 3D A9 4F 80 05 18 B7 53 C2 46 EF FB A0 8F D2 02 9B AD 5D FC F0 DA F0 7B 7D 80 1C 46 5F FD 25 2C 70 B9 21 53 B3 30 D9 5D CA 2F A1 FA AE 2D 01 68 A4 EA 8B 47 5C D8 05 DC 32 AA 96 4C 17 BF CD 2C D5 D0 30 9A B0 EA 76 1B	
92	Issuer Public Key Remainder	50 DA 20 DD A8 95 3B 69 3F ED 84 36 68 31 BA 1E EA 97 F7 8F 79 2A CF 8C B9 8F DF 01 49 A7 B7 8F DA 1C 49 67	

Tag	Element name	Data	v4.2
93	Signed Static Application Data	6F 72 29 95 54 16 D6 7C 87 28 45 23 D6 83 29 48 46 5B A4 EA 0A 5C 9F A2 79 00 65 B3 0C F7 BC 2B 53 04 B0 3A C7 1B 85 CA F8 FB 4C 6B E0 91 D6 42 3E DC 35 36 F0 91 79 EB E6 2C D1 9E 37 7A A9 81 4D EC 66 41 80 E3 E4 92 8C F9 19 AE 8F F0 D0 44 EE FE 0E BE ED 3C 1D CF 4F AD A6 1E CA AC 1C A5 62 5C 14 8A 88 13 BE 28 90 C2 24 B9 31 09 BE 24 4C 4F EE A7 41 2D DC 7D AB F9 29 66 1F 34 5D 07 9E E9 22 81 E3 11 6B 93 6B E3 03 66 AA 10 12 77 C1 54 B3 1D 4B 09 5D 6C 73 49 AD 17 E0 F8 EE DF 9B 98 DA 08 88 72 BB E5 FD E6 27 6F 49 53 B0 63	
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 10 06 06 00 B0 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 96	
9F 0D	Issuer Action Code - Default	00 00 00 00 00	
9F 0E	Issuer Action Code - Denial	00 00 80 00 00	
9F 0F	Issuer Action Code - Online	00 00 00 00 00	
9F 10	Issuer Application Data [VSDC]	xx xx xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	56 69 73 61 20 43 72 65 64 69 74 (`Visa Credit`)	
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 37 35 38 39 30 30 38 39 33 30 30 30 30 30 30 30 30 30 30 30 30 30 30	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *	
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	

Tag	Element name	Data	v4.2
9F 46	ICC Public Key Certificate	8D DF 80 B4 D3 39 0C 87 F0 D3 FE D8 A1 29 56 3A DC 3D B1 28 C0 09 42 D9 6E 97 20 BF 1C 70 E7 EE AB A7 B9 03 97 64 75 05 65 06 98 68 7C F9 76 60 1B 0D 71 7A F2 4F D9 AE EF 9B 43 B4 08 33 3F 23 50 A8 6E 38 D4 D4 CF 48 33 0A 55 D5 D8 0A 69 4F E8 25 FD 8F AD 7C EB B5 2C A3 4C D0 DE 7F 3A 56 F9 01 9E 49 DE AC 3F 73 F4 25 C7 41 DC F8 6F 3A BD EF 04 79 F6 E9 9C CB 1F D4 AA 2E 2A B3 B7 C3 97 CB 41 4B AE 6F B4 53 85 74 E5 56 A4 12 A4 86 BD 58 43 E9 05 7A A8 A9 5A 06 20 DF 17 08 A7 7B A5 FA C9 5F 67 98 FA AA 82 31 0F 32 EA 81 56 DB	
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]	01 24 (CAD)	
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00 00 00	
9F 53	Consecutive Transaction Limit (International) [VSDC]	03	
9F 54	Cumulative Total Transaction Amount Limit [VSDC]	00 00 00 02 00 00	
9F 56	Issuer Authentication Indicator [VSDC]	00	
9F 57	Issuer Country Code [VSDC]	01 24 (Canada)	
9F 58	Consecutive Transaction Counter Limit [VSDC]	03	
9F 59	Consecutive Transaction Counter Upper Limit [VSDC]	07	
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 04 00 00	
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	07	
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	10 00 D0 00	
9F 6D	VLP Reset Threshold [VSDC]	00 00 00 00 00 00	
9F 77	VLP Funds Limit [VSDC]	00 00 00 00 00 00	
9F 78	VLP Single Transaction Limit [VSDC]	00 00 00 00 00 00	
9F 79	VLP Available Funds [VSDC]	00 00 00 00 00 00	
BF 55	Contactless Counters Data Template	DF 61 06 00 00 00 00 00 00 DF 71 06 00 00 00 00 00 00 DF 41 06 00 00 00 00 00 00 DF 51 06 00 00 00 00 00 00 DF 11 01 00 DF 21 01 03 DF 31 01 07	
BF 56	Counters Data Template	DF 11 01 03 DF 21 01 03 DF 31 01 07	
BF 57	International Counters Data Template	DF 11 01 03 DF 21 01 03 DF 31 01 07 DF 51 01 03	
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00 DF 21 06 00 00 00 02 00 00 DF 31 06 00 00 00 04 00 00	

Tag	Element name	Data	v4.2
BF 5B	Application Internal Data Template	DF 01 02 00 00	

1.5 Test Card 05 – Mastercard, PIN=4315, English, Bad ARPC

English Mastercard Offline Plaintext PIN card that may generate an ACC at the 2nd Gen AC.

If the host returns an Application Response Cryptogram (Tag 91), the ARPC will fail verification causing the card to return an AAC at the 2nd Gen AC. In this case the POS should decline the transaction and send a host reversal.

If the host approves the transaction and an Application Response Cryptogram (Tag 91) is not returned, the transaction should be approved.

The recommended transaction amount to generate a host approval is \$120.00.

Note: This behavior may change if the Mastercard Authorization Simulator (MAS) test cases change.

1.5.1 Cardholder Verification Method List – AID (A0000000041010)

Cardholder Verification Method List ('0100')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Always	Fail

1.5.2 Tag List

* Tag value changes with card usage

Tag	Element name	Data	v4.2
50	Application Label	4D 61 73 74 65 72 43 61 72 64 ('MasterCard')	
57	Track 2 Equivalent Data	54 13 33 00 89 01 04 34 D1 81 22 01 08 82 80 32 90 00 0F	
5A	Application Primary Account Number (PAN)	54 13 33 00 89 01 04 34	
5F 20	Cardholder Name	54 65 73 74 2F 43 61 72 64 20 30 35 20 20 20 20 20 20 20 20 20 20 20 20 20 20 ('Test/Card 05 ')	
5F 24	Application Expiration Date	18 12 31	
5F 25	Application Effective Date	xx xx xx	
5F 28	Issuer Country Code	01 24 (Canada)	
5F 2D	Language Preference	65 6E ('en' - English)	
5F 30	Service Code	02 01	
5F 34	Application PAN Sequence Number	00	
82	Application Interchange Profile	38 00	
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 9B 02	
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 01 00	
8F	Certification Authority Public Key Index	FA	
90	Issuer Public Key Certificate	18 89 B9 97 E6 FC E8 4B 4A E7	

Tag	Element name	Data	v4.2
		AB 87 43 1C BD B3 DF 8C 1D 5A 55 A7 F6 0D 29 59 AF 3A 51 04 E7 58 83 17 ED 74 08 66 68 CF 1A 05 47 84 F7 49 3C 6D 74 7F A7 96 EC 14 D3 33 A6 8E C7 E0 08 62 95 9A 0B D0 F0 48 20 80 B7 1A C1 B7 62 5B 1B 8B 1F 35 A6 69 19 99 BA 78 F5 92 E2 3F 95 E9 96 09 D1 08 CF 1C 0E 30 8A 8B F6 4F BD E8 37 D3 CE 13 8A 50 DC 50 AF 4B 41 EE 53 D9 8A 11 B6 A8 1D DD 44 CC 43 0C 1E F3 BB 9D 1D 75 A0 2F AA 9C 81 4A FC 58	
92	Issuer Public Key Remainder	D3 52 41 07	
94	Application File Locator (AFL)	08 02 04 01 18 01 01 00 20 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 02	
9F 0D	Issuer Action Code - Default	B8 50 84 00 00	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	B8 70 B8 98 00	
9F 10	Issuer Application Data [M/Chip 4]	xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	4D 61 73 74 65 72 43 61 72 64 ('MasterCard')	
9F 14	Lower Consecutive Offline Limit	00	
9F 17	Personal Identification Number (PIN) Try Counter	0F	
9F 1F	Track 1 Discretionary Data	20 20	
9F 23	Upper Consecutive Offline Limit	0F	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 42	Application Currency Code	01 24 (CAD)	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	07 A4 5D 7C 18 4D 40 5F 3E 95 C1 3E DC BA A4 1C 9C E8 D6 B7 11 25 F8 E1 CB 97 E5 E8 B7 DB 98 43 3C 58 C2 D9 D2 94 EC BD AB 76 FE BC 7D 5A 12 B8 CC 2C 19 B9 B9 6C 78 52 88 A3 0A CF 97 8D 6A B6 8F 8A 84 D2 59 F1 9E 8B 3D A6 20 D3 07 23 C1 55 3F 7E 9D A6 02 FA DC 35 27 4F F9 EC 00 18 F1 55 D4 99 C2 93 F4 D8 9E E9 86 CA 4A E2 AD A0 D6 32	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	A0 04 08 85 AE ED B1 13 3C 16 55 32 DE 6C 1A A4 DF 75 68 AF 8A 0D 1D 21 36 B5 98 66 FF 2D 1B 65 90 1A 0B 70 96 CF 81 15 42 13	
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04	
9F 4A	Static Data Authentication Tag List	82	

Tag	Element name	Data	v4.2
9F 4B	Signed Dynamic Application Data	59 5D 9B C1 86 2E C3 6A 45 07 EC 53 32 E1 C7 B2 3C 48 37 29 18 3A 02 74 F4 37 60 56 93 1E 4D B5 B0 53 12 A3 C6 61 C9 8F C5 4A 0E 44 49 89 F2 62 85 3A 5A 3B 86 F2 68 1D 70 B6 7A 6E 74 52 05 AD 97 6C 1B 59 F2 94 5D 38 D5 33 CD 79 D5 1D 9C 25 45 89 1B 19 7D C2 E3 1C 3F BE 53 69 2F 9A A4 EB 3A 57 1A BE E1 F7 D0 13 AD 1D BE F0 2B 74 19 E9	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06	
9F 6E	Third Party Data [MasterCard]	01 24 00 00 30 30 00	
9F 7E	Application Life Cycle Data [MasterCard]	03 10 0C 12 00 09 00 00 FF 00 04 00 00 02 60 00 00 38 4A 02 11 50 35 43 44 30 37 32 20	
C3	Card Issuer Action Code - Decline [MasterCard]	00 00 00	
C4	Card Issuer Action Code - Default [MasterCard]	00 00 00	
C5	Card Issuer Action Code - Online [MasterCard]	3F FF 03	
C7	CDOL1 Related Data Length [MasterCard]	2D	
C8	CRM Country Code [MasterCard]	01 24 (Canada)	
C9	CRM Currency Code [M/Chip4]	01 24 (CAD)	
CA	Lower Cumulative Offline Transaction Amount [M/Chip]	00 00 00 00 00 00	
CB	Upper Cumulative Offline Transaction Amount [M/Chip]	00 00 00 00 00 00	
D1	Currency Conversion Table [M/Chip]	01 24 00 00 00 01 24 00 00 00 01 24 00 00 00 01 24 00 00 00 01 24 00 00 00	
D3	Additional Check Table [MasterCard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF	
D5	Application Control [M/Chip]	C4 00	
D6	Default ARPC Response Code [M/Chip4]	00 10	
DF 02	Security Limits Status [MasterCard]	00	

1.6 Test Card 06 – Mastercard, PIN=4315, French, Bad ARPC

French Mastercard Offline Plaintext PIN card that may generate an ACC at the 2nd Gen AC.

If French is supported by the POS, French should be auto-selected. If the POS supports only one language and it's not French, the POS language should be auto-selected. If the POS supports multiple languages but not French, the list of POS languages should be displayed for cardholder selection. Once selected, cardholder prompts and the customer receipt should be in the selected language.

If the host returns an Application Response Cryptogram (Tag 91), the ARPC will fail verification causing the card to return an AAC at the 2nd Gen AC. In this case the POS should decline the transaction and send a host reversal.

If the host approves the transaction and an Application Response Cryptogram (Tag 91) is not returned, the transaction should be approved.

The recommended transaction amount to generate a host approval is \$120.00.

Note: This behavior may change if the Mastercard Authorization Simulator (MAS) test cases change.

1.6.1 Cardholder Verification Method List – AID (A0000000041010)

Cardholder Verification Method List ('0100')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Always	Fail

1.6.2 Tag List

* Tag value changes with card usage

Tag	Element name	Data	v4.2
50	Application Label	4D 61 73 74 65 72 43 61 72 64 ('MasterCard')	
57	Track 2 Equivalent Data	54 13 33 00 89 01 04 34 D1 81 22 01 08 82 80 32 90 00 0F	
5A	Application Primary Account Number (PAN)	54 13 33 00 89 01 04 34	
5F 20	Cardholder Name	54 65 73 74 2F 43 61 72 64 20 30 36 20 20 20 20 20 20 20 20 20 20 20 20 20 ('Test/Card 06 ')	
5F 24	Application Expiration Date	18 12 31	
5F 25	Application Effective Date	xx xx xx	
5F 28	Issuer Country Code	01 24 (Canada)	
5F 2D	Language Preference	66 72 ('fr' - French)	
5F 30	Service Code	02 01	
5F 34	Application PAN Sequence Number	00	
82	Application Interchange Profile	38 00	
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 9B 02	
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 01 00	
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	

Tag	Element name	Data	v4.2
		E7 58 83 17 ED 74 08 66 68 CF 1A 05 47 84 F7 49 3C 6D 74 7F A7 96 EC 14 D3 33 A6 8E C7 E0 08 62 95 9A 0B D0 F0 48 20 80 B7 1A C1 B7 62 5B 1B 8B 1F 35 A6 69 19 99 BA 78 F5 92 E2 3F 95 E9 96 09 D1 08 CF 1C 0E 30 8A 8B F6 4F BD E8 37 D3 CE 13 8A 50 DC 50 AF 4B 41 EE 53 D9 8A 11 B6 A8 1D DD 44 CC 43 0C 1E F3 BB 9D 1D 75 A0 2F AA 9C 81 4A FC 58	
92	Issuer Public Key Remainder	D3 52 41 07	
94	Application File Locator (AFL)	08 02 04 01 18 01 01 00 20 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 02	
9F 0D	Issuer Action Code - Default	B8 50 84 00 00	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	B8 70 9C 98 00	
9F 10	Issuer Application Data [M/Chip 4]	xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	4D 61 73 74 65 72 43 61 72 64	
9F 14	Lower Consecutive Offline Limit	00	
9F 17	Personal Identification Number (PIN) Try Counter	0F	
9F 1F	Track 1 Discretionary Data	20 20	
9F 23	Upper Consecutive Offline Limit	0F	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 42	Application Currency Code	01 24 (CAD)	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	38 11 17 3E DA 42 7A 2C 7E 87 D7 03 BB 3B E9 3E F9 4F 64 A5 C8 A4 38 EB ED DF 8C D4 37 CE 4D 8B 9F AE 76 62 06 90 7F E5 3C 5A 58 70 20 E5 81 B3 AB 84 C1 32 E6 57 03 A5 15 E8 C9 3B D5 32 04 A6 DE F8 06 CC 85 AA D9 DE 31 20 56 84 B8 9A 20 85 37 85 2B 9B 81 DF 5F 1B 43 C5 E9 CA 7F 8D 48 8C 3F 84 71 01 40 80 27 0E 12 34 2C EF 56 63 39 6D	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	04 36 EB 1E BD 0B C2 97 F8 9A 7E 25 33 70 68 2C 90 EF A6 B9 AD 03 AF BD AE 44 76 DA E1 40 A4 09 40 75 A5 35 38 CA FC 8F 4A 89	
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04	
9F 4A	Static Data Authentication Tag List	82	
9F 4B	Signed Dynamic Application Data	E9 FF CA D6 24 D2 8D 93 B1 67 ED C7 46 EC 73 A8 F2 BA 2A 28	

Tag	Element name	Data	v4.2
		94 7B FE 44 EB A6 FD 0A B4 F8 7B E5 53 CA B2 7C D8 E0 0A 97 AE 30 62 5C E8 B7 35 64 06 BD 35 09 7B CC 6B 41 F9 FD 76 D6 AA 30 D7 73 B7 8A 93 44 F4 A2 9C 6E B0 9C 78 43 86 90 69 D3 5A F2 73 F5 64 1A 60 62 16 55 A4 5E 3C EA 9E 4D 00 29 DA C7 E2 99 B7 14 C8 03 53 B3 1F B3 B8 CA	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06	
9F 6E	Third Party Data [MasterCard]	01 24 00 00 30 30 00	
9F 7E	Application Life Cycle Data [MasterCard]	03 10 0C 12 00 09 00 00 FF 00 04 00 00 02 60 00 00 38 4A 02 11 50 35 43 44 30 37 32 20	
C3	Card Issuer Action Code - Decline [MasterCard]	00 00 00	
C4	Card Issuer Action Code - Default [MasterCard]	00 00 00	
C5	Card Issuer Action Code - Online [MasterCard]	06 FF 03	
C7	CDOL1 Related Data Length [MasterCard]	2D	
C8	CRM Country Code [MasterCard]	01 24 (Canada)	
C9	CRM Currency Code [M/Chip4]	01 24 (CAD)	
CA	Lower Cumulative Offline Transaction Amount [M/Chip]	00 00 00 00 00 00	
CB	Upper Cumulative Offline Transaction Amount [M/Chip]	00 00 00 00 00 00	
D1	Currency Conversion Table [M/Chip]	01 24 00 00 00 01 24 00 00 00 01 24 00 00 00 01 24 00 00 00 01 24 00 00 00	
D3	Additional Check Table [MasterCard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF	
D5	Application Control [M/Chip]	C4 00	
D6	Default ARPC Response Code [M/Chip4]	00 10	
DF 02	Security Limits Status [MasterCard]	00	

1.7 Test Card 07 – Interac, PIN=1234, English (BIN=450644)

English Interac Offline Plaintext PIN debit card for testing with processors supporting BIN 450644.

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

1.7.1 Cardholder Verification Method List – AID (A0000002771010)

Cardholder Verification Method List ('0100')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Always	Fail

1.7.2 Tag List

* Tag value changes with card usage

Tag	Element name	Data	v4.2
50	Application Label	49 6E 74 65 72 61 63 ('Interac')	
57	Track 2 Equivalent Data	45 06 44 50 06 93 19 33 D1 81 22 20 01 62 90 74 00 00 1F	
5A	Application Primary Account Number (PAN)	45 06 44 50 06 93 19 33	
5F 20	Cardholder Name	54 65 73 74 2F 43 61 72 64 20 30 37 20 20 20 20 20 20 20 20 20 20 20 20 20 ('Test/Card 07 ')	
5F 24	Application Expiration Date	18 12 31	
5F 25	Application Effective Date	xx xx xx	
5F 28	Issuer Country Code	01 24 (Canada)	
5F 2D	Language Preference	65 6E ('en' - English)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile	1C 00	
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04	
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 01 00	
8F	Certification Authority Public Key Index	55	

Tag	Element name	Data	v4.2
90	Issuer Public Key Certificate	6C 16 73 99 B8 BE 0C CA 2A A9 EF 30 EC F5 14 C4 F4 F1 F0 89 85 8A 46 08 6F 12 F2 80 B6 81 FD CA 40 8C 09 51 C0 D6 BA 64 FD 05 C7 2C 5A 23 B2 66 DA 11 D6 75 BA B2 AC 74 C5 AF E0 41 A6 94 2D 84 FC 19 0D C0 6D 83 CF 17 71 F2 F9 74 B8 31 73 5A A1 30 39 4D 12 DC CF D5 74 61 D1 20 E5 58 F6 35 12 F6 DB 82 46 DD 41 00 9F A1 D9 73 1B 27 42 F9 7E FD 2B C1 16 DF B9 AF 7A 96 6A CF 12 83 A8 49 A7 A9 73 6A 0D 8A E2 63 98 36 BC A6 9B D9 EE 78	
92	Issuer Public Key Remainder	EC A4 19 2A 02 CA AC 0B 75 22 44 EC AE 9F 1A BA 46 15 E7 05 27 AD D0 D8 03 67 54 CA 9F A5 2E 7D 42 16 22 0F	
93	Signed Static Application Data	B3 71 F5 C7 60 F2 6E 02 F5 FA 01 E0 F6 A6 41 D7 B8 28 17 5B DD 99 1E 29 1D 80 FC B3 05 D4 4D 27 C9 8D C8 0E D1 0B 45 14 60 DF 8B A2 3C E0 B6 44 4D 15 1C 3A 60 78 CF B9 EF 1D 00 B3 7C 17 35 6F 92 F8 BA 5F E1 CE 96 EB 46 0A 99 A4 D2 21 66 6F F8 03 26 03 DA 4A 27 D1 CF CC C8 5F 22 DD B2 D2 40 86 81 93 05 85 FB E6 A7 C5 0F 16 77 CF E9 5D 70 C2 2A 35 3E 91 3A 69 CB A3 B8 8A D9 30 4D B1 4F E1 30 26 E9 26 A0 09 86 D3 94 2F A9 A0 C1 29	
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 10 06 06 00 B0 01 01 00	
9F 07	Application Usage Control	AB 00	
9F 08	Application Version Number	00 01	
9F 0D	Issuer Action Code - Default	F0 78 FC B8 00	
9F 0E	Issuer Action Code - Denial	00 10 D8 00 00	
9F 0F	Issuer Action Code - Online	FC 78 24 F8 80	
9F 10	Issuer Application Data [VSDC]	xx xx xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	49 6E 74 65 72 61 63	
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 37 35 38 39 30 30 38 39 33 30 30 30 30 30 30 30 30 30 30 30 30 30 30	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *	
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	

Tag	Element name	Data	v4.2
9F 46	ICC Public Key Certificate	77 AD 11 CE 4F 81 BE CD 3F B2 09 56 18 69 08 88 06 E5 98 DE 95 CC 36 B5 97 0F 0E FC A7 81 CA 6F 42 B8 BC 31 6D 9B 65 2C 02 C0 96 36 93 4A 7A EA 69 30 09 E5 92 BD 15 67 D9 DC 68 A8 B6 1E 32 13 F9 CE 7B FB 8D D7 DF BB ED E1 CB 2E 07 FA 1F 29 EA 6A DF 2D FB 5C F9 E5 8E 97 75 25 56 48 61 64 EF FF 1B 79 C8 09 D1 2E C7 8B 06 C8 C2 7F F3 87 BD 00 02 DF 1D 84 1B 84 B8 F3 3A 49 A8 5B 48 76 24 AB B2 87 1D 79 87 25 48 21 E6 61 F4 8E 6D 9B	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	B7 C3 2E 5E D6 60 2E C5 01 3D E5 CA 12 BE 0B C0 71 88 AB F9 2B 43 B9 E4 35 9F	
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]	01 24 (CAD)	
9F 52	Application Default Action [VSDC VIS 1.4]	C3 38 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]	01 24 (Canada)	
9F 58	Lower Consecutive Offline Limit (Card Check) [VSDC]	00	
9F 59	Upper Consecutive Offline Limit (Card Check) [VSDC]	00	
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 00 00 00	
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	00	
9F 68	Card Additional Processes [qVSDC VCPS 2.0.2]	10 00 10 00	
9F 6D	VLP Reset Threshold [VSDC]	00 00 00 00 00 00	
9F 77	VLP Funds Limit [VSDC]	00 00 00 00 00 00	
9F 78	VLP Single Transaction Limit [VSDC]	00 00 00 00 00 00	
9F 79	VLP Available Funds [VSDC]	00 00 00 00 00 00	

1.8 Test Card 08 – Interac, PIN=1234, French (BIN=450644)

French Interac Offline Plaintext PIN debit card for testing with processors supporting BIN 450644.

If French is supported by the POS, French should be auto-selected. If the POS supports only one language and it's not French, the POS language should be auto-selected. If the POS supports multiple languages but not French, the list of POS languages should be displayed for cardholder selection.

Once selected, cardholder prompts and the customer receipt should be in the selected language.

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

1.8.1 Cardholder Verification Method List – AID (A0000002771010)

Cardholder Verification Method List ('0100')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Always	Fail

1.8.2 Tag List

* Tag value changes with card usage

Tag	Element name	Data	v4.2
50	Application Label	49 6E 74 65 72 61 63 (`Interac`)	
57	Track 2 Equivalent Data	45 06 44 50 06 93 19 33 D1 81 22 20 01 62 90 74 00 00 2F	
5A	Application Primary Account Number (PAN)	45 06 44 50 06 93 19 33	
5F 20	Cardholder Name	54 65 73 74 2F 43 61 72 64 20 30 38 20 20 20 20 20 20 20 20 20 20 20 20 20 (`Test/Card 08`)	
5F 24	Application Expiration Date	18 12 31	
5F 25	Application Effective Date	xx xx xx	
5F 28	Issuer Country Code	01 24 (Canada)	
5F 2D	Language Preference	66 72 (`fr` - French)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile	1C 00	
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10	
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04	
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 01 00	
8F	Certification Authority Public Key Index	55	

Tag	Element name	Data	v4.2
90	Issuer Public Key Certificate	6C 16 73 99 B8 BE 0C CA 2A A9 EF 30 EC F5 14 C4 F4 F1 F0 89 85 8A 46 08 6F 12 F2 80 B6 81 FD CA 40 8C 09 51 C0 D6 BA 64 FD 05 C7 2C 5A 23 B2 66 DA 11 D6 75 BA B2 AC 74 C5 AF E0 41 A6 94 2D 84 FC 19 0D C0 6D 83 CF 17 71 F2 F9 74 B8 31 73 5A A1 30 39 4D 12 DC CF D5 74 61 D1 20 E5 58 F6 35 12 F6 DB 82 46 DD 41 00 9F A1 D9 73 1B 27 42 F9 7E FD 2B C1 16 DF B9 AF 7A 96 6A CF 12 83 A8 49 A7 A9 73 6A 0D 8A E2 63 98 36 BC A6 9B D9 EE 78	
92	Issuer Public Key Remainder	EC A4 19 2A 02 CA AC 0B 75 22 44 EC AE 9F 1A BA 46 15 E7 05 27 AD D0 D8 03 67 54 CA 9F A5 2E 7D 42 16 22 0F	
93	Signed Static Application Data	B3 71 F5 C7 60 F2 6E 02 F5 FA 01 E0 F6 A6 41 D7 B8 28 17 5B DD 99 1E 29 1D 80 FC B3 05 D4 4D 27 C9 8D C8 0E D1 0B 45 14 60 DF 8B A2 3C E0 B6 44 4D 15 1C 3A 60 78 CF B9 EF 1D 00 B3 7C 17 35 6F 92 F8 BA 5F E1 CE 96 EB 46 0A 99 A4 D2 21 66 6F F8 03 26 03 DA 4A 27 D1 CF CC C8 5F 22 DD B2 D2 40 86 81 93 05 85 FB E6 A7 C5 0F 16 77 CF E9 5D 70 C2 2A 35 3E 91 3A 69 CB A3 B8 8A D9 30 4D B1 4F E1 30 26 E9 26 A0 09 86 D3 94 2F A9 A0 C1 29	
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 10 06 06 00 B0 01 01 00	
9F 07	Application Usage Control	AB 00	
9F 08	Application Version Number	00 01	
9F 0D	Issuer Action Code - Default	F0 78 FC B8 00	
9F 0E	Issuer Action Code - Denial	00 10 D8 00 00	
9F 0F	Issuer Action Code - Online	FC 78 24 F8 80	
9F 10	Issuer Application Data [VSDC]	xx xx xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	49 6E 74 65 72 61 63	
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 37 35 38 39 30 30 38 39 33 30 30 30 30 30 30 30 30 30 30 30 30 30 30	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *	
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	

Tag	Element name	Data	v4.2
9F 46	ICC Public Key Certificate	ED 2E 4C 9F 0B 5A DA 98 7E AF 08 95 33 B3 46 3C A2 35 50 33 37 7E BA 49 3F FA 95 A1 F4 B0 BE F7 75 92 A1 70 BC D2 84 8B 22 D5 41 4D 34 5E 61 10 CD 59 B3 50 E8 10 0F D6 68 3F 6E 7E DD CD 60 9E 4A D4 CE AF B0 5E 29 3D BF A7 17 44 7B 65 71 73 34 02 F1 E6 47 A6 76 E5 2C 29 37 BD 50 DB E7 BD 60 2D C1 F9 82 AA 0B 32 58 16 C9 57 68 3D 3F 69 2B 7E 86 0D 82 14 12 07 12 9D 50 B2 CA F6 FE 71 A4 E0 6C 2D 41 D7 A2 7F 75 E4 08 16 BD 95 85 16	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	2A AA 69 B9 D5 B2 09 BE 6B EA 1D CF 1D 6D 92 58 11 3B DF DE 00 DB 06 F6 84 BB	
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]	01 24 (CAD)	
9F 52	Application Default Action [VSDC VIS 1.4]	C3 38 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]	01 24 (Canada)	
9F 58	Lower Consecutive Offline Limit (Card Check) [VSDC]	00	
9F 59	Upper Consecutive Offline Limit (Card Check) [VSDC]	00	
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 00 00 00	
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	00	
9F 68	Card Additional Processes [qVSDC VCPS 2.0.2]	10 00 10 00	
9F 6D	VLP Reset Threshold [VSDC]	00 00 00 00 00 00	
9F 77	VLP Funds Limit [VSDC]	00 00 00 00 00 00	
9F 78	VLP Single Transaction Limit [VSDC]	00 00 00 00 00 00	

1.9 Test Card 09 – Interac, PIN=1234, English (BIN=450636)

English Interac Offline Plaintext PIN debit card for testing with processors supporting BIN 450636.

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

1.9.1 Cardholder Verification Method List – AID (A0000002771010)

Cardholder Verification Method List ('0100')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Always	Fail

1.9.2 Tag List

* Tag value changes with card usage

Tag	Element name	Data	v4.2
50	Application Label	49 6E 74 65 72 61 63 (`Interac`)	
57	Track 2 Equivalent Data	45 06 36 44 00 03 81 06 D1 81 22 20 01 62 90 74 00 00 1F	
5A	Application Primary Account Number (PAN)	45 06 36 44 00 03 81 06	
5F 20	Cardholder Name	54 65 73 74 2F 43 61 72 64 20 30 39 20 20 20 20 20 20 20 20 20 20 20 20 20 (`Test/Card 09`)	
5F 24	Application Expiration Date	18 12 31	
5F 25	Application Effective Date	xx xx xx	
5F 28	Issuer Country Code	01 24 (Canada)	
5F 2D	Language Preference	65 6E (`en` - English)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile	1C 00	
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04	
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 01 00	
8F	Certification Authority Public Key Index	55	
90	Issuer Public Key Certificate	6C 16 73 99 B8 BE 0C CA 2A A9 EF 30 EC F5 14 C4 F4 F1 F0 89 85 8A 46 08 6F 12 F2 80 B6 81 FD CA 40 8C 09 51 C0 D6 BA 64 FD 05 C7 2C 5A 23 B2 66 DA 11 D6 75 BA B2 AC 74 C5 AF E0 41 A6 94 2D 84 FC 19 0D C0 6D 83 CF 17 71 F2 F9 74 B8 31 73 5A A1 30 39 4D 12 DC CF D5 74 61 D1 20 E5 58 F6 35 12 F6 DB 82 46 DD 41 00 9F A1 D9 73 1B 27 42 F9 7E FD 2B C1 16 DF B9 AF 7A 96 6A CF 12 83 A8 49 A7 A9 73 6A 0D 8A E2 63 98 36 BC A6 9B D9 EE 78	

Tag	Element name	Data	v4.2
92	Issuer Public Key Remainder	EC A4 19 2A 02 CA AC 0B 75 22 44 EC AE 9F 1A BA 46 15 E7 05 27 AD D0 D8 03 67 54 CA 9F A5 2E 7D 42 16 22 0F	
93	Signed Static Application Data	A5 3F 16 6C 49 52 25 8E C0 22 32 17 AD 10 DA 00 8E FA DD DF 93 A8 15 6C F1 9E 13 31 F0 19 BE 8A AB 2F 75 75 D4 41 EC A4 62 89 09 70 77 AF F7 FF 4E 2A B2 7B 87 EC 6B 26 E4 12 BD CC 5D 41 5D F1 D3 99 1D D1 AB 93 AD 9E F4 D2 65 CB 73 76 D5 10 42 73 65 AA 0B 61 10 CF 09 09 C6 45 82 90 AD 61 CF E7 92 F3 CC FE 37 DE F5 3A 3E 13 AD 5D 62 70 12 B4 D7 13 D3 B6 2A 3C FF 7A 4B 17 1A A2 72 A5 D6 83 59 70 B2 A4 24 72 F8 96 FA 30 21 EE 96 F3	
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 10 06 06 00 B0 01 01 00	
9F 07	Application Usage Control	AB 00	
9F 08	Application Version Number	00 01	
9F 0D	Issuer Action Code - Default	F0 78 FC B8 00	
9F 0E	Issuer Action Code - Denial	00 10 D8 00 00	
9F 0F	Issuer Action Code - Online	FC 78 24 F8 80	
9F 10	Issuer Application Data [VSDC]	xx xx xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	49 6E 74 65 72 61 63	
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 37 35 38 39 30 30 38 39 33 30 30 30 30 30 30 30 30 30 30 30 30 30 30	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *	
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	64 9A 8C F5 E5 EE A4 B6 3A 80 3E 20 1D FC D9 A6 C1 36 0A 40 88 15 0D DD 9C EF 9E E6 C9 AE 77 59 FF A8 1D 9F 22 10 96 9A D6 68 1B A3 17 69 27 EE A6 61 A1 29 3D 15 9F 42 36 49 51 75 9F 78 17 B6 01 EF 1B 72 83 7F 64 EC D4 F9 F6 D4 55 44 9A 5D 59 C9 95 72 05 02 35 27 4B A6 00 01 A8 ED 95 4B AE F6 8F DA CA 4C CC EB 45 B1 64 D9 6E 99 54 8A 32 22 59 EC 5E 86 F6 8B D9 38 02 EB 37 09 6F 81 4F 29 34 AD 76 6D 81 7A A7 04 5B D0 2A FC 5D 24	
9F 47	ICC Public Key Exponent	03	

Tag	Element name	Data	v4.2
9F 48	ICC Public Key Remainder	56 94 89 5A 82 22 96 0B 6E 9B B3 C4 FA 0C E7 AD 53 69 24 AB 33 58 CA B0 F3 7F	
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]	01 24 (CAD)	
9F 52	Application Default Action [VSDC VIS 1.4]	C3 38 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]	01 24 (Canada)	
9F 58	Lower Consecutive Offline Limit (Card Check) [VSDC]	00	
9F 59	Upper Consecutive Offline Limit (Card Check) [VSDC]	00	
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 00 00 00	
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	00	
9F 68	Card Additional Processes [qVSDC VCPS 2.0.2]	10 00 10 00	
9F 6D	VLP Reset Threshold [VSDC]	00 00 00 00 00 00	
9F 77	VLP Funds Limit [VSDC]	00 00 00 00 00 00	
9F 78	VLP Single Transaction Limit [VSDC]	00 00 00 00 00 00	
9F 79	VLP Available Funds [VSDC]	00 00 00 00 00 00	

1.10 Test Card 10 – Interac, PIN=1234, French (BIN=450636)

French Interac Offline Plaintext PIN debit card for testing with processors supporting BIN 450636.

If French is supported by the POS, French should be auto-selected. If the POS supports only one language and it's not French, the POS language should be auto-selected. If the POS supports multiple languages but not French, the list of POS languages should be displayed for cardholder selection.

Once selected, cardholder prompts and the customer receipt should be in the selected language.

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

1.10.1 Cardholder Verification Method List – AID (A0000002771010)

Cardholder Verification Method List ('0100')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Always	Fail

1.10.2 Tag List

* Tag value changes with card usage

Tag	Element name	Data	v4.2
50	Application Label	49 6E 74 65 72 61 63 (`Interac`)	
57	Track 2 Equivalent Data	45 06 36 44 00 03 81 06 D1 81 22 20 01 62 90 74 00 00 2F	
5A	Application Primary Account Number (PAN)	45 06 36 44 00 03 81 06	
5F 20	Cardholder Name	54 65 73 74 2F 43 61 72 64 20 31 30 20 20 20 20 20 20 20 20 20 20 20 20 20 (`Test/Card 10`)	
5F 24	Application Expiration Date	18 12 31	
5F 25	Application Effective Date	xx xx xx	
5F 28	Issuer Country Code	01 24 (Canada)	
5F 2D	Language Preference	66 72 (`fr` - French)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile	1C 00	
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04	
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 01 00	
8F	Certification Authority Public Key Index	55	

Tag	Element name	Data	v4.2
90	Issuer Public Key Certificate	6C 16 73 99 B8 BE 0C CA 2A A9 EF 30 EC F5 14 C4 F4 F1 F0 89 85 8A 46 08 6F 12 F2 80 B6 81 FD CA 40 8C 09 51 C0 D6 BA 64 FD 05 C7 2C 5A 23 B2 66 DA 11 D6 75 BA B2 AC 74 C5 AF E0 41 A6 94 2D 84 FC 19 0D C0 6D 83 CF 17 71 F2 F9 74 B8 31 73 5A A1 30 39 4D 12 DC CF D5 74 61 D1 20 E5 58 F6 35 12 F6 DB 82 46 DD 41 00 9F A1 D9 73 1B 27 42 F9 7E FD 2B C1 16 DF B9 AF 7A 96 6A CF 12 83 A8 49 A7 A9 73 6A 0D 8A E2 63 98 36 BC A6 9B D9 EE 78	
92	Issuer Public Key Remainder	EC A4 19 2A 02 CA AC 0B 75 22 44 EC AE 9F 1A BA 46 15 E7 05 27 AD D0 D8 03 67 54 CA 9F A5 2E 7D 42 16 22 0F	
93	Signed Static Application Data	A5 3F 16 6C 49 52 25 8E C0 22 32 17 AD 10 DA 00 8E FA DD DF 93 A8 15 6C F1 9E 13 31 F0 19 BE 8A AB 2F 75 75 D4 41 EC A4 62 89 09 70 77 AF F7 FF 4E 2A B2 7B 87 EC 6B 26 E4 12 BD CC 5D 41 5D F1 D3 99 1D D1 AB 93 AD 9E F4 D2 65 CB 73 76 D5 10 42 73 65 AA 0B 61 10 CF 09 09 C6 45 82 90 AD 61 CF E7 92 F3 CC FE 37 DE F5 3A 3E 13 AD 5D 62 70 12 B4 D7 13 D3 B6 2A 3C FF 7A 4B 17 1A A2 72 A5 D6 83 59 70 B2 A4 24 72 F8 96 FA 30 21 EE 96 F3	
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 10 06 06 00 B0 01 01 00	
9F 07	Application Usage Control	AB 00	
9F 08	Application Version Number	00 01	
9F 0D	Issuer Action Code - Default	F0 78 FC B8 00	
9F 0E	Issuer Action Code - Denial	00 10 D8 00 00	
9F 0F	Issuer Action Code - Online	FC 78 24 F8 80	
9F 10	Issuer Application Data [VSDC]	xx xx xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	49 6E 74 65 72 61 63	
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 37 35 38 39 30 30 38 39 33 30 30 30 30 30 30 30 30 30 30 30 30 30 30	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx *	
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	

Tag	Element name	Data	v4.2
9F 46	ICC Public Key Certificate	40 AD F0 09 7A D6 D3 1A D7 C5 55 1A 5A CA 83 62 64 FB CA 5A CA 81 6E 08 01 6A 97 1C D0 23 AD 56 0D 05 8F 66 D6 77 A7 85 82 E3 D9 9A CC 3A DB 80 68 0E B4 F7 11 9D B6 2B E3 16 EB FD 20 31 E8 89 AF 64 B5 6A A4 D3 E8 19 DD 71 42 58 E3 AF 72 F5 27 97 1C 49 AE 3D 66 4A D9 F6 1C 07 5D 9E 89 8E E9 B4 56 27 09 94 7C 7C 05 71 54 FF D7 C1 C3 EC B5 5B 8D 79 5D 79 EC B8 09 F1 63 41 78 09 55 C1 FD B5 86 EE B1 65 0F B0 A4 8E 60 CC EF C0 B2 0E	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	3F 0C 7F A9 9D E7 28 D7 8D 15 2C CA 7C A2 9B 24 2D BF A5 5E AA 67 12 4E 40 33	
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]	01 24 (CAD)	
9F 52	Application Default Action [VSDC VIS 1.4]	C3 38 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]	01 24 (Canada)	
9F 58	Lower Consecutive Offline Limit (Card Check) [VSDC]	00	
9F 59	Upper Consecutive Offline Limit (Card Check) [VSDC]	00	
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 00 00 00	
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	00	
9F 68	Card Additional Processes [qVSDC VCPS 2.0.2]	10 00 10 00	
9F 6D	VLP Reset Threshold [VSDC]	00 00 00 00 00 00	
9F 77	VLP Funds Limit [VSDC]	00 00 00 00 00 00	
9F 78	VLP Single Transaction Limit [VSDC]	00 00 00 00 00 00	
9F 79	VLP Available Funds [VSDC]	00 00 00 00 00 00	

Chapter 2 - ASCII Character Conversion Chart

Dec	Bin	Hex	Char	Dec	Bin	Hex	Char	Dec	Bin	Hex	Char
00	00000000	00	NUL	44	00101100	2C	,	88	01011000	58	X
01	00000001	01	SOH	45	00101101	2D	-	89	01011001	59	Y
02	00000010	02	STX	46	00101110	2E	.	90	01011010	5A	Z
03	00000011	03	ETX	47	00101111	2F	/	91	01011011	5B	[
04	00000100	04	EOT	48	00110000	30	0	92	01011100	5C	\
05	00000101	05	ENQ	49	00110001	31	1	93	01011101	5D]
06	00000110	06	ACK	50	00110010	32	2	94	01011110	5E	^
07	00000111	07	BEL	51	00110011	33	3	95	01011111	5F	_
08	00001000	08	BS	52	00110100	34	4	96	01100000	60	`
09	00001001	09	HT	53	00110101	35	5	97	01100001	61	a
10	00001010	0A	LF	54	00110110	36	6	98	01100010	62	b
11	00001011	0B	VT	55	00110111	37	7	99	01100011	63	c
12	00001100	0C	FF	56	00111000	38	8	100	01100100	64	d
13	00001101	0D	CR	57	00111001	39	9	101	01100101	65	e
14	00001110	0E	SO	58	00111010	3A	:	102	01100110	66	f
15	00001111	0F	SI	59	00111011	3B	;	103	01100111	67	g
16	00010000	10	DLE	60	00111100	3C	<	104	01101000	68	h
17	00010001	11	DC1	61	00111101	3D	=	105	01101001	69	i
18	00010010	12	DC2	62	00111110	3E	>	106	01101010	6A	j
19	00010011	13	DC3	63	00111111	3F	?	107	01101011	6B	k
20	00010100	14	DC4	64	01000000	40	@	108	01101100	6C	l
21	00010101	15	NAK	65	01000001	41	A	109	01101101	6D	m
22	00010110	16	SYM	66	01000010	42	B	110	01101110	6E	n
23	00010111	17	ETB	67	01000011	43	C	111	01101111	6F	o
24	00011000	18	CAN	68	01000100	44	D	112	01110000	70	p
25	00011001	19	EM	69	01000101	45	E	113	01110001	71	q
26	00011010	1A	SUB	70	01000110	46	F	114	01110010	72	r
27	00011011	1B	ESC	71	01000111	47	G	115	01110011	73	s
28	00011100	1C	FS	72	01001000	48	H	116	01110100	74	t
29	00011101	1D	GS	73	01001001	49	I	117	01110101	75	u
30	00011110	1E	RS	74	01001010	4A	J	118	01110110	76	v
31	00011111	1F	US	75	01001011	4B	K	119	01110111	77	w
32	00100000	20	SP	76	01001100	4C	L	120	01111000	78	x
33	00100001	21	!	77	01001101	4D	M	121	01111001	79	y
34	00100010	22	"	78	01001110	4E	N	122	01111010	7A	z
35	00100011	23	#	79	01001111	4F	O	123	01111011	7B	{
36	00100100	24	\$	80	01010000	50	P	124	01111100	7C	
37	00100101	25	%	81	01010001	51	Q	125	01111101	7D	}
38	00100110	26	&	82	01010010	52	R	126	01111110	7E	~
39	00100111	27	'	83	01010011	53	S	127	01111111	7F	DEL
40	00101000	28	(84	01010100	54	T				
41	00101001	29)	85	01010101	55	U				
42	00101010	2A	*	86	01010110	56	V				
43	00101011	2B	+	87	01010111	57	W				