



**User Acceptance Test (UAT) Flash BIN '00'  
EMV™ Test Card Set**

**Version 2.00**

**February 2021**

**Powered by B2»**

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Interac Association.



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## Revision History

Version	Date	Updated By	Revisions
1.00	October 8, 2020	B2PS	<ul style="list-style-type: none"><li>• Initial document release</li></ul>
2.00	February 18, 2021	B2PS	<ul style="list-style-type: none"><li>• TC01, TC02: MTI (Contactless) tags 9F52, 9F54, 9F55, 9F56, 9F57 updated.</li></ul>

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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 \*\*\***

### IMPORTANT NOTICES

The Interac Flash test cards in this set have a '001202' 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 this 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 device but it will not obtain a host approval. \*\*\*\***

#### **IMPORTANT TECHNICAL NOTICE from Interac – ACQUIRERS' SUPPORT**

Link to Interac document: [Interac Letter - Issuer simulator setup for Flash Cards](#)

“When using the contact interface in an Acquirer test environment, the Issuer simulator must be configured to return value '88 40' in ARPCrc response (ARPCrc byte 1 bits 6-3 should be set to zero).

***Unless issuer simulator is configured to return '88 40', a contact transaction may block the card.”***

***--- B2 will charge to replace cards blocked in this manner ---***

## Chapter 1 - User Acceptance Test Flash BIN '00' EMV Test Card Set Profiles

This User Acceptance Test (UAT) Flash BIN '00' EMV Test Card Set contains 2 Interac cards.



	Test Card 01	Test Card 02
<b>Brand</b>	Interac	Interac
<b>Description (Card - Types)</b>	Canadian Debit	Canadian Debit
<b>AID list</b>	A0000002771010	A0000002771010
<b>PAN list</b>	00120 0200 00001	00120 0200 00001
<b>Expiry Date</b>	12/2028	12/2028
<b>Service Code</b>	220	220
<b>Interface</b>	Contactless, Contact, MSR	Contactless, Contact, MSR
<b>CVM</b>	<a href="#">See card definition</a>	<a href="#">See card definition</a>
<b>Approval Amount</b>	\$10.00	\$10.00
<b>Issuer Country Code</b>	124 - CAN	124 - CAN
<b>Application Currency Code</b>	124 -CAD	124 - CAD
<b>Language</b>	'enfr' - English, French	'fren' - French, English
<b>Card Version</b>	v3.x	v3.x

### Notes:

- Both cards support Offline Enciphered PIN (OEP) for Contact transactions
- Both cards support CDA using a 1984-bit length CA Public Key and Issuer Public key

### 1.1 Test Card 01 - Interac, DI, 1-AID (Interac), English/French, 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'. Languages supported are English and French.

All Merchant Type Indicator (MTI) Limits (tags 9F52, 9F54, 9F55, 9F56, 9F57) set to \$250.01

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

#### 1.1.1 Contact Interface: CVM List - Interac, AID A000002771010

Cardholder Verification Method List ('0403 0103 0203')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Enciphered PIN	Terminal supports CVM type	Fail
2	Offline Plaintext PIN	Terminal supports CVM type	Fail
3	Online PIN	Terminal supports CVM type	Fail

#### 1.1.2 Contact Interface: Application Tag data, AID A000002771010

Tag	Element name	Data	v3.x
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'	
57	Track 2 Equivalent Data	00 12 02 00 00 00 1D 28 12 22 00 01 23 00 00 00 02 00 0F	
5A	Application Primary Account Number (PAN)	00 12 02 00 00 00 1F	
5F 20	Cardholder Name	55 41 54 20 49 4E 54 46 4C 2F 54 65 73 74 20 43 61 72 64 20 30 31 20 20 20 20 - 'UAT INTFL/Test Card 01'	
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'	
82	Application Interchange Profile	19 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 supported BYTE 2: b8 - EMV Contactless NOT supported	
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10	
87	Application Priority Indicator	02	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 45 02 9F 4C 08 9F 34 03	
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 04 03 01 03 02 03	
8F	Certification Authority Public Key Index	07	

Tag	Element name	Data	v3.x
90	Issuer Public Key Certificate	19 35 B3 0D 49 9C D4 77 F0 2D 09 00 6E 81 77 84 14 C4 9D 0E AD E9 8C B8 BA E3 D7 B5 47 E7 B9 30 2F 5F FF 5D 6F 6A B1 29 E8 7B 75 6A A8 82 21 C0 E1 C5 DE 9A 76 71 1B 3E 63 10 08 AB C9 F1 52 74 55 F2 34 3F D9 E7 73 46 B6 21 A1 96 71 BF 9A 5F FC 31 D9 4D 5A E8 E7 77 62 23 40 A2 E5 E8 1F BE 8C 9F 06 47 10 AD 96 C0 B6 9E 97 CB C7 EA 85 7A 1C E1 36 6C 79 77 D2 C2 0B 31 E1 ED F6 4D 92 3D 56 EE 74 CA AC A4 81 ED F5 78 63 F1 70 F6 48 DB 1B 90 F7 18 BA 75 47 E5 B3 BD 71 E6 82 63 B6 30 B7 6C 7D FA 3C 10 3C CD 98 1D 89 66 8C 45 75 04 99 F5 79 E0 2B EF AE 7B 34 39 99 71 30 D3 39 1B 2B 6D 44 62 DB 53 F6 74 75 22 89 25 3C 80 A3 E3 B1 EC 79 9E 7E D6 A7 76 91 8E 72 89 B1 52 3D 06 14 CF AB D6 FA 2B DE 09 0E 8C 2A 65 C2 D9 56 D8 9D 84 FC 22 60 D1 B6 25	
94	Application File Locator (AFL)	08 01 04 00 10 01 01 01 18 01 04 01	
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 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 01 xx *	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	09	
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	

Tag	Element name	Data	v3.x
9F 46	ICC Public Key Certificate	17 1D D3 99 55 1C 16 36 EC 64 83 C2 9A CF DA EA 94 0A CF 2C 26 29 2E 26 B3 25 64 D2 EE 41 1C 54 A3 65 6F 37 3D 8C D8 E3 AB E7 8E 08 9E 1E 78 29 6E 90 05 59 24 45 16 2D 8C ED 93 85 0B 2A EA 03 A4 3A A5 14 5C DA 5D 37 25 0D 9A BF 75 68 CD 11 41 F9 18 E6 E1 48 08 D2 4A 13 DB 4A E5 0D 45 2C 73 49 90 72 79 31 D5 D6 22 21 80 AA 29 B4 EE A9 56 20 4D 0F 15 64 00 EA 47 4F 27 BE ED 80 3F 39 7E 48 0E AD 49 79 A9 F0 3A CC 0F 91 F5 90 4E 8E	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	58 E1 26 A5 FD D0 9B 64 A3 52 02 82 4A 44 4B 9A 6D 37 95 6A 4D 5F A4 55 1D 4B	
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 62	Card Product Code [InteracFlash]	00 01	
DF 62	Application Selection Flag [Canada]	80 80	

\* Tag value changes with card usage

### 1.1.3 Contactless Interface: CVM List - Interac Flash, AID A000002771010

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

### 1.1.4 Contactless Interface: Application Tag data, AID A000002771010

Tag	Element name	Data	v3.x
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'	
57	Track 2 Equivalent Data	00 12 02 00 00 00 1D 28 12 22 00 01 23 00 00 00 02 00 0F	
5A	Application Primary Account Number (PAN)	00 12 02 00 00 00 1F	
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'	
82	Application Interchange Profile	01 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 b1 - Combined DDA / GEN AC supported BYTE 2: b8 - EMV Contactless NOT supported	



Tag	Element name	Data	v3.x
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10	
87	Application Priority Indicator	02	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 45 02 9F 4C 08 9F 34 03	
8F	Certification Authority Public Key Index	07	
90	Issuer Public Key Certificate	19 35 B3 0D 49 9C D4 77 F0 2D 09 00 6E 81 77 84 14 C4 9D 0E AD E9 8C B8 BA E3 D7 B5 47 E7 B9 30 2F 5F FF 5D 6F 6A B1 29 E8 7B 75 6A A8 82 21 C0 E1 C5 DE 9A 76 71 1B 3E 63 10 08 AB C9 F1 52 74 55 F2 34 3F D9 E7 73 46 B6 21 A1 96 71 BF 9A 5F FC 31 D9 4D 5A E8 E7 77 62 23 40 A2 E5 E8 1F BE 8C 9F 06 47 10 AD 96 C0 B6 9E 97 CB C7 EA 85 7A 1C E1 36 6C 79 77 D2 C2 0B 31 E1 ED F6 4D 92 3D 56 EE 74 CA AC A4 81 ED F5 78 63 F1 70 F6 48 DB 1B 90 F7 18 BA 75 47 E5 B3 BD 71 E6 82 63 B6 30 B7 6C 7D FA 3C 10 3C CD 98 1D 89 66 8C 45 75 04 99 F5 79 E0 2B EF AE 7B 34 39 99 71 30 D3 39 1B 2B 6D 44 62 DB 53 F6 74 75 22 89 25 3C 80 A3 E3 B1 EC 79 9E 7E D6 A7 76 91 8E 72 89 B1 52 3D 06 14 CF AB D6 FA 2B DE 09 0E 8C 2A 65 C2 D9 56 D8 9D 84 FC 22 60 D1 B6 25	
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 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	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 01 xx *	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	09	
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 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	

Tag	Element name	Data	v3.x
9F 42	Application Currency Code	01 24 - CAD	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	4B 7E 19 5E 2F E9 EE 08 19 C9 D9 C9 27 83 E9 7E 3A 33 FF 02 D3 EE 9F 0D 41 04 F3 CB 8C 22 17 84 E4 9B 54 F6 93 4F 67 86 8A E1 4A E8 29 34 F7 E7 1F 0F 7C B1 2C 32 5A A6 D7 17 EC 97 3E E9 91 2A BB 52 C8 B8 17 DB A6 8B 02 FE D8 84 4F 8B 71 40 ED D0 19 0D 4D 81 20 A0 CE 4C B9 B9 30 D1 F3 28 7E ED 6D 0D 16 92 D2 A9 46 F5 E0 15 5A D2 9C 31 12 F5 2E 47 0E 4F F3 5F 02 B9 86 5D 42 8E 77 C4 12 85 4B 88 66 46 7C 11 4A 4C 70 E7 76 08 9D E2	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	58 E1 26 A5 FD D0 9B 64 A3 52 02 82 4A 44 4B 9A 6D 37 95 6A 4D 5F A4 55 1D 4B	
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 [InteracFlash]	00 10 00 00	
DF 62	Application Selection Flag [Canada]	80 80	

\* Tag value changes with card usage

## 1.2 Test Card 02 - Interac, DI, 1-AID (Interac), French/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'. Languages supported are French and English.

All Merchant Type Indicator (MTI) Limits (tags 9F52, 9F54, 9F55, 9F56, 9F57) set to \$250.01

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

### 1.2.1 Contact Interface: CVM List - Interac, AID A000002771010

Cardholder Verification Method List ('0403 0103 0203')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Enciphered PIN	Terminal supports CVM type	Fail
2	Offline Plaintext PIN	Terminal supports CVM type	Fail
3	Online PIN	Terminal supports CVM type	Fail

### 1.2.2 Contact Interface: Application Tag data, AID A000002771010

Tag	Element name	Data	v3.x
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'	
57	Track 2 Equivalent Data	00 12 02 00 00 00 1D 28 12 22 00 01 23 00 00 00 02 00 0F	
5A	Application Primary Account Number (PAN)	00 12 02 00 00 00 1F	
5F 20	Cardholder Name	55 41 54 20 49 4E 54 46 4C 2F 54 65 73 74 20 43 61 72 64 20 30 32 20 20 20 20 - 'UAT INTFL/Test Card 02'	
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	66 72 65 6E - 'fren' (French, English)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
5F 56	Issuer Country Code (alpha3 format)	43 41 4E - 'CAN'	
82	Application Interchange Profile	19 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 supported BYTE 2: b8 - EMV Contactless NOT supported	
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10	
87	Application Priority Indicator	02	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 45 02 9F 4C 08 9F 34 03	
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 04 03 01 03 02 03	
8F	Certification Authority Public Key Index	07	

Tag	Element name	Data	v3.x
90	Issuer Public Key Certificate	19 35 B3 0D 49 9C D4 77 F0 2D 09 00 6E 81 77 84 14 C4 9D 0E AD E9 8C B8 BA E3 D7 B5 47 E7 B9 30 2F 5F FF 5D 6F 6A B1 29 E8 7B 75 6A A8 82 21 C0 E1 C5 DE 9A 76 71 1B 3E 63 10 08 AB C9 F1 52 74 55 F2 34 3F D9 E7 73 46 B6 21 A1 96 71 BF 9A 5F FC 31 D9 4D 5A E8 E7 77 62 23 40 A2 E5 E8 1F BE 8C 9F 06 47 10 AD 96 C0 B6 9E 97 CB C7 EA 85 7A 1C E1 36 6C 79 77 D2 C2 0B 31 E1 ED F6 4D 92 3D 56 EE 74 CA AC A4 81 ED F5 78 63 F1 70 F6 48 DB 1B 90 F7 18 BA 75 47 E5 B3 BD 71 E6 82 63 B6 30 B7 6C 7D FA 3C 10 3C CD 98 1D 89 66 8C 45 75 04 99 F5 79 E0 2B EF AE 7B 34 39 99 71 30 D3 39 1B 2B 6D 44 62 DB 53 F6 74 75 22 89 25 3C 80 A3 E3 B1 EC 79 9E 7E D6 A7 76 91 8E 72 89 B1 52 3D 06 14 CF AB D6 FA 2B DE 09 0E 8C 2A 65 C2 D9 56 D8 9D 84 FC 22 60 D1 B6 25	
94	Application File Locator (AFL)	08 01 04 00 10 01 01 01 18 01 04 01	
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 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 01 xx *	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	09	
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	

Tag	Element name	Data	v3.x
9F 46	ICC Public Key Certificate	74 D4 7D 85 CE A3 A0 B4 18 31 68 37 1A 59 4F BF 1C 96 FB E3 73 92 95 B5 04 5D 12 87 5F 85 87 D7 45 B9 E2 C0 23 0A E9 84 E4 E6 29 B0 6B 4A 8D F9 55 9B 9D 56 04 6F 55 3B 8F 14 25 FA BF E9 24 E1 61 FD 5E B4 BA D8 00 35 B9 BD 62 EA 8F 37 32 4B A7 6A BF F5 3F 21 9F 90 9D 0B 4E 6B 73 14 7B 97 11 61 FB CE 44 3D 45 67 56 26 D2 0E FF A0 D8 B3 8F 59 15 67 5D 50 6F 9D 4F 60 D3 40 FF 37 6A 9B E6 CA 73 89 AB DF 5A 67 96 3F FE 84 9E A9 46 E3	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	3D D8 F1 7C D0 3F 34 AA 3B C6 22 4D DC D7 99 7A 95 D8 3B BE 00 C9 78 8D F0 9D	
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 62	Card Product Code [InteracFlash]	00 01	
DF 62	Application Selection Flag [Canada]	80 80	

\* Tag value changes with card usage

### 1.2.3 Contactless Interface: CVM List - Interac Flash, AID A000002771010

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

### 1.2.4 Contactless Interface: Application Tag data, AID A000002771010

Tag	Element name	Data	v3.x
50	Application Label	49 6E 74 65 72 61 63 - 'Interac'	
57	Track 2 Equivalent Data	00 12 02 00 00 00 1D 28 12 22 00 01 23 00 00 00 02 00 0F	
5A	Application Primary Account Number (PAN)	00 12 02 00 00 00 1F	
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	66 72 65 6E - 'fren' (French, English)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
5F 56	Issuer Country Code (alpha3 format)	43 41 4E - 'CAN'	
82	Application Interchange Profile	01 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 b1 - Combined DDA / GEN AC supported BYTE 2: b8 - EMV Contactless NOT supported	

Tag	Element name	Data	v3.x
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10	
87	Application Priority Indicator	02	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 45 02 9F 4C 08 9F 34 03	
8F	Certification Authority Public Key Index	07	
90	Issuer Public Key Certificate	19 35 B3 0D 49 9C D4 77 F0 2D 09 00 6E 81 77 84 14 C4 9D 0E AD E9 8C B8 BA E3 D7 B5 47 E7 B9 30 2F 5F FF 5D 6F 6A B1 29 E8 7B 75 6A A8 82 21 C0 E1 C5 DE 9A 76 71 1B 3E 63 10 08 AB C9 F1 52 74 55 F2 34 3F D9 E7 73 46 B6 21 A1 96 71 BF 9A 5F FC 31 D9 4D 5A E8 E7 77 62 23 40 A2 E5 E8 1F BE 8C 9F 06 47 10 AD 96 C0 B6 9E 97 CB C7 EA 85 7A 1C E1 36 6C 79 77 D2 C2 0B 31 E1 ED F6 4D 92 3D 56 EE 74 CA AC A4 81 ED F5 78 63 F1 70 F6 48 DB 1B 90 F7 18 BA 75 47 E5 B3 BD 71 E6 82 63 B6 30 B7 6C 7D FA 3C 10 3C CD 98 1D 89 66 8C 45 75 04 99 F5 79 E0 2B EF AE 7B 34 39 99 71 30 D3 39 1B 2B 6D 44 62 DB 53 F6 74 75 22 89 25 3C 80 A3 E3 B1 EC 79 9E 7E D6 A7 76 91 8E 72 89 B1 52 3D 06 14 CF AB D6 FA 2B DE 09 0E 8C 2A 65 C2 D9 56 D8 9D 84 FC 22 60 D1 B6 25	
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 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	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 01 xx *	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	09	
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 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	

Tag	Element name	Data	v3.x
9F 42	Application Currency Code	01 24 - CAD	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	9F 9B 02 52 93 E2 D5 73 14 E0 70 C8 B0 8B 34 41 35 B7 95 D2 BE 8D 6A 6D 3E E5 D7 B4 0D BA 7A F1 98 AE BB 47 E3 72 C3 5B 3A C2 48 2B 10 73 E4 E7 0B F7 3B E2 69 2B 19 4B 0B A2 67 17 68 7A B8 EC C8 86 EF 35 46 E6 7E EC 2A 13 BE A3 AA B8 C0 B5 4E EA 57 86 59 78 F5 9A 63 3A 9A 39 F3 29 FF 5E A0 43 8E B9 39 9C 28 BB 41 DF 93 D2 43 12 BB DA E4 1B DA 87 97 98 28 C2 04 3A 8F 37 88 40 D9 3E C2 0F A5 48 1F 9D E9 3D C4 1A 32 DF 6B B1 40 AC	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	3D D8 F1 7C D0 3F 34 AA 3B C6 22 4D DC D7 99 7A 95 D8 3B BE 00 C9 78 8D F0 9D	
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	
9F 57	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 [InteracFlash]	00 10 00 00	
DF 62	Application Selection Flag [Canada]	80 80	

\* Tag value changes with card usage

## Chapter 2 - ASCII Character Conversion Chart

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