



# Interac USA Interoperability EMV™ Test Card Set

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## Revision History

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1.10	October 31, 2018	B2PS	<ul style="list-style-type: none"><li>• TC03 Corrected expiry date</li></ul>



## Table of Contents

<b>Chapter 1 - UL USA Interac EMV Test Card Set Profiles .....</b>	<b>2</b>
<b>1.1 Test Card 01 – Interac, CO, Debit, English, Canada, CAD .....</b>	<b>3</b>
1.1.1 Cardholder Verification Method List - AID A0000002771010 .....	3
1.1.2 Application Tag data (Contact I/F, online).....	3
<b>1.2 Test Card 02 – Visa/Interac, CO, Debit/Debit, Eng/Fre, Canada, CAD.....</b>	<b>6</b>
1.2.1 Cardholder Verification Method List (Contact) - AID A0000000031010 .....	6
1.2.2 Application Tag data (Contact I/F, online).....	6
1.2.3 Cardholder Verification Method List (Contact) - AID A0000002771010 .....	7
1.2.4 Application Tag data (Contact I/F, online).....	8
<b>1.3 Test Card 03 – Visa/Interac, CO, Credit/Debit, Eng/Fre, Canada, CAD .....</b>	<b>10</b>
1.3.1 Cardholder Verification Method List (Contact) - AID A0000000031010 .....	10
1.3.2 Application Tag data (Contact I/F, online).....	10
1.3.3 Cardholder Verification Method List (Contact) - AID A0000002771010 .....	11
1.3.4 Application Tag data (Contact I/F, online).....	11
<b>Chapter 2 - ASCII Character Conversion Chart.....</b>	<b>14</b>



**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 - UL Interac USA Interoperability EMV Test Card Set Profiles

This Interac USA Interoperability EMV Test Card Set contains 3 cards with at least one card from each of the following card brands.



	Test Card 01	Test Card 02	Test Card 03
<b>Brand</b>	Interac	Visa / Interac	Visa / Interac
<b>Type</b>	Debit	Debit / Debit	Credit / Debit
<b>Description</b>	Canadian Debit	Interoperable	Interoperable
<b>AIDs</b>	A0000002771010	A0000000031010, A0000002771010	A0000000031010, A0000002771010
<b>PAN</b>	4506 4450 0693 1933	4761 7390 0101 0176	4761 7390 0101 0176
<b>Expiry Date</b>	12/2022	12/2022	12/2022
<b>Service Code</b>	220	201	220
<b>Interface</b>	Contact, MSR	Contact, MSR	Contact, MSR
<b>CVM</b>	<a href="#">See card definition</a>	<a href="#">See card definition</a>	<a href="#">See card definition</a>
<b>Approval Amount</b>	\$10.00	\$10.00	\$10.00
<b>Issuer Country Code</b>	124 – Canada	124 – Canada	124 – Canada
<b>Application Currency Code</b>	124 - CAD	124 - CAD	124 - CAD
<b>Language</b>	'en' – English	'enfr' – English, French	'enfr' – English, French
<b>Card Version</b>	v2.0	v2.0	v2.0



## 1.1 Test Card 01 – Interac, CO, Debit, English, Canada, CAD

A Contact Only Interac card with Issuer Country Code of ‘Canada’ and Currency Code of ‘CAD’.  
The recommended transaction amount to generate a host approval is \$10.00.

### 1.1.1 Cardholder Verification Method List - AID A0000002771010

Cardholder Verification Method List('4103 0203')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM
2	Offline PIN	Terminal supports CVM type	Fail

### 1.1.2 Application Tag data (Contact I/F, online)

\* Tag value changes with card usage

Tag	Element name	Data	v2.0
50	Application Label	49 4E 54 45 52 41 43 - 'INTERAC'	
57	Track 2 Equivalent Data	45 06 44 50 06 93 19 33 D2 21 22 20 01 62 90 74 00 00 1F	
5A	Application Primary Account Number (PAN)	45 06 44 50 06 93 19 33	
5F 20	Cardholder Name	55 53 41 20 49 4E 54 45 52 41 43 2F 54 65 73 74 20 43 61 72 64 20 30 31 20 20 - 'USA INTERAC/Test Card 01'	
5F 24	Application Expiration Date	22 12 31	
5F 25	Application Effective Date	xx xx xx	
5F 28	Issuer Country Code	01 24 - CAN	
5F 2D	Language Preference	65 6E - 'en' (English)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile [VSDC]	1C 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone	
84	Dedicated File (DF) Name	A0 00 00 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 41 03 02 03	
8F	Certification Authority Public Key Index	55	



Tag	Element name	Data	v2.0
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	19 0E 9E 76 BE 9C B3 23 8B 41 7C DC 6C 36 A1 A4 8C BF 49 FF 17 20 22 A9 DC 45 B4 5D 95 AE 53 B2 FD B4 46 43 4C 28 67 23 7C CC 15 5E 8D 34 B3 B3 F8 74 7B 4F EB E1 BD ED A2 EE B7 D2 4A 33 72 84 08 F3 65 D0 45 19 3A 74 76 38 51 50 D4 50 AA 2B 36 F1 E3 A8 3B C2 E6 1A 06 7B EE D1 13 E2 3E C3 F8 85 B2 5A 03 2D 23 C7 4A C0 DF 85 4E C1 93 B3 09 29 2A 1E 88 C5 BE B1 66 B4 5C 1E 5F 1B D5 0E DD 61 53 22 92 48 D9 0E 46 3F 4B 37 28 DD 2B 8D	
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 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed	
9F 08	Application Version Number	00 01	
9F 0D	Issuer Action Code - Default	B0 70 BC 80 00	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	B0 70 BC 98 00	
9F 10	Issuer Application Data [VSDC]	xx xx 0A xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	49 6E 74 65 72 61 63 - 'Interac'	
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 36 32 39 30 37 34 30 30 30 31 30 30 30 30 30 30 30 30 30 30 30	
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 38	Processing Options Data Object List (PDOL)	9F 02 06 9F 1A 02	
9F 44	Application Currency Exponent	02	



Tag	Element name	Data	v2.0
9F 46	ICC Public Key Certificate	A8 CE A4 07 5B 1D D8 CC 5D 91 0A 24 C6 DB 13 B5 33 71 E1 BB D1 70 F7 0F D5 00 50 7F 85 0F 8E CF 6A B3 3F 63 1C 8A 5C A7 CD C0 5A 01 84 3F EF 82 8F A2 2A 4B 4D 8F 86 BA 09 57 0D 2B 27 68 29 58 96 77 29 70 00 87 BB A4 23 92 AC C0 A4 4D 03 DF 95 98 63 8D A6 3A 69 BA C2 3C B0 E8 C8 19 82 77 0B 43 3F D1 D6 C7 F2 02 5D 3E C5 8B 31 70 41 CB 6D 33 C6 AA 7C 56 D7 E6 24 7C 74 78 C4 33 F8 94 E0 E7 20 A4 1A 2D 62 54 92 89 7B 43 EE 5A 6E 51	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	0D 19 F4 54 C3 51 D2 05 A3 DA BC CD AA 0D 16 97 68 33 69 B3 4E DB 38 5E 7C 5D	
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]	C0 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 - CAN	
9F 58	Consecutive Transaction Counter Limit [VSDC]	00	
9F 59	Consecutive Transaction Counter Upper Limit [VSDC]	00	
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 00 00 00	
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	00	
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	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	
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 DF 11 01 00 DF 21 01 00 DF 31 01 00	
BF 56	Counters Data Template	DF 11 01 02 DF 21 01 00 DF 31 01 00	
BF 57	International Counters Data Template	DF 11 01 02 DF 21 01 00 DF 31 01 00 DF 51 01 01	
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00 DF 21 06 00 00 00 00 00 00 DF 31 06 00 00 00 00 00 00	
BF 5B	Application Internal Data Template	DF 01 02 00 00	





## 1.2 Test Card 02 – Visa/Interac, CO, Debit/Debit, Eng/Fre, Canada, CAD

A Contact Only co-branded Visa and Interac card with Issuer Country Code of ‘Canada’ and Currency Code of ‘CAD’.

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

### 1.2.1 Cardholder Verification Method List (Contact) - AID A0000000031010

Cardholder Verification Method List('4203 1F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Terminal supports CVM type	Next CVM
2	No CVM Required	Terminal supports CVM type	Fail

### 1.2.2 Application Tag data (Contact I/F, online)

\* Tag value changes with card usage

Tag	Element name	Data	v2.0
50	Application Label	56 49 53 41 20 44 45 42 49 54 20 20 20 20 20 20 - 'VISA DEBIT'	
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 76 D2 21 22 20 14 83 59 49 00 00 0F	
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 76	
5F 20	Cardholder Name	55 53 41 20 49 4E 54 45 52 41 43 2F 54 65 73 74 20 43 61 72 64 20 30 32 20 20 - 'USA INTERAC/Test Card 02'	
5F 24	Application Expiration Date	22 12 31	
5F 28	Issuer Country Code	01 24 - CAN	
5F 2D	Language Preference	65 6E 66 72 - 'enfr' (English, French)	
5F 30	Service Code	02 01	
5F 34	Application PAN Sequence Number	01	
5F 56	Issuer Country Code (alpha3 format)	43 41 4E - 'CAN'	
82	Application Interchange Profile [VSDC]	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone	
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04	
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 00 42 03 1F 03	
94	Application File Locator (AFL)	08 01 01 00	



Tag	Element name	Data	v2.0
9F 07	Application Usage Control	D7 00 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions valid b6 - Domestic goods NOT valid b5 - International goods valid b4 - Domestic services NOT valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed	
9F 08	Application Version Number	00 96	
9F 0B	Cardholder Name Extended	20 20	
9F 0D	Issuer Action Code - Default	30 78 DC 98 00	
9F 0E	Issuer Action Code - Denial	00 10 18 00 00	
9F 0F	Issuer Action Code - Online	B0 78 DC 98 00	
9F 10	Issuer Application Data [VSDC]	xx xx 0A xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	56 69 73 61 20 44 65 62 69 74 20 20 20 20 20 20 - 'Visa Debit'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	03	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 44	Application Currency Exponent	01	
9F 4A	Static Data Authentication Tag List	82	
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 9F 27 01	
9F 51	Application Currency Code [VSDC]	01 24 - CAD	
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [VSDC]	80	
9F 57	Issuer Country Code [VSDC]	01 24 - CAN	
9F 5D	Available Offline Spending Amount [VSDC]	00 00 00 00 00 00	
9F 73	Currency Conversion Parameters [VSDC]	01 24 00 00 00 00 01 24 00 00 00 00 01 24 00 00 00 00 01 24 00 00 00 00 01 24 00 00 00 00	
BF 55	Contactless Counters Data Template		
BF 56	Counters Data Template		
BF 57	International Counters Data Template		
BF 58	Amounts Data Template		
BF 59	Profile Controls Template		
BF 5A	AIP/AFL Entries Template		
BF 5B	Application Internal Data Template	DF 01 02 C0 00	
DF 62	Application Selection Flag [Canada]	40 00	

### 1.2.3 Cardholder Verification Method List (Contact) - AID A000002771010

Cardholder Verification Method List('0103 0000')			
CVM	Verification Method	Conditions	If unsuccessful



1	Offline Plaintext PIN	Terminal supports CVM type	Fail
2	Fail CVM Processing	Always	Fail

### 1.2.4 Application Tag data (Contact I/F, online)

\* Tag value changes with card usage

Tag	Element name	Data	v2.0
50	Application Label	49 4E 54 45 52 41 43 - 'INTERAC'	
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 76 D2 21 22 20 14 83 59 49 00 00 0F	
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 76	
5F 20	Cardholder Name	55 53 41 20 49 4E 54 45 52 41 43 2F 54 65 73 74 20 43 61 72 64 20 30 32 20 20 - 'USA INTERAC/Test Card 02'	
5F 24	Application Expiration Date	22 12 31	
5F 28	Issuer Country Code	01 24 - CAN	
5F 2D	Language Preference	65 6E 66 72 - 'enfr' (English, French)	
5F 30	Service Code	02 01	
5F 34	Application PAN Sequence Number	01	
5F 56	Issuer Country Code (alpha3 format)	43 41 4E - 'CAN'	
82	Application Interchange Profile [VSDC]	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone	
84	Dedicated File (DF) Name	A0 00 00 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	
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 01 03 00 00 00 00 00 00	
94	Application File Locator (AFL)	08 01 01 00	
9F 07	Application Usage Control	AB 80 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods NOT valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1- Terminals other than ATMs valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed	
9F 08	Application Version Number	00 02	
9F 0D	Issuer Action Code - Default	FC F8 FC F8 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 [VSDC]	xx xx 0A xx xx xx xx *	



Tag	Element name	Data	v2.0
9F 11	Issuer Code Table Index	02	
9F 12	Application Preferred Name	49 6E 74 65 72 61 63 20 20 20 20 20 20 20 20 20 - 'Interac'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	03	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 06 05	
9F 44	Application Currency Exponent	02	
9F 4A	Static Data Authentication Tag List	82	
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 9F 27 01	
9F 51	Application Currency Code [VSDC]	01 24 - CAD	
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [VSDC]	80	
9F 57	Issuer Country Code [VSDC]	01 24 - CAN	
9F 5D	Available Offline Spending Amount [VSDC]	00 00 00 00 00 00	
BF 55	Contactless Counters Data Template		
BF 56	Counters Data Template		
BF 57	International Counters Data Template		
BF 58	Amounts Data Template		
BF 59	Profile Controls Template		
BF 5A	AIP/AFL Entries Template		
BF 5B	Application Internal Data Template	DF 01 02 C0 00	
DF 62	Application Selection Flag [Canada]	80 80	



### 1.3 Test Card 03 – Visa/Interac, CO, Credit/Debit, Eng/Fre, Canada, CAD

A Contact Only co-branded Visa and Interac card with Issuer Country Code of 'Canada' and Currency Code of 'CAD'.

The recommended transaction amount to generate a host approval is \$10.

#### 1.3.1 Cardholder Verification Method List (Contact) - AID A0000000031010

Cardholder Verification Method List('4203 1F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Terminal supports CVM type	Next CVM
2	No CVM Required	Terminal supports CVM type	Fail

#### 1.3.2 Application Tag data (Contact I/F, online)

\* Tag value changes with card usage

Tag	Element name	Data	v2.0
50	Application Label	56 49 53 41 20 43 52 45 44 49 54 20 20 20 20 20 - 'VISA CREDIT'	
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 76 D2 21 22 20 14 83 59 49 00 00 0F	
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 76	
5F 20	Cardholder Name	55 53 41 20 49 4E 54 45 52 41 43 2F 54 65 73 74 20 43 61 72 64 20 30 33 20 20 - 'USA INTERAC/Test Card 03'	
5F 24	Application Expiration Date	22 12 31	
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 [VSDC]	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone	
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04	
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 41 03 1F 03	
94	Application File Locator (AFL)	08 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 96	



Tag	Element name	Data	v2.0
9F 0B	Cardholder Name Extended	20 20	
9F 0D	Issuer Action Code - Default	30 78 DC 98 00	
9F 0E	Issuer Action Code - Denial	00 10 18 00 00	
9F 0F	Issuer Action Code - Online	B0 78 DC 98 00	
9F 10	Issuer Application Data [VSDC]	xx xx 0A xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	56 69 73 61 20 43 72 65 64 69 74 20 20 20 20 20 - 'Visa Credit'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	03	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 44	Application Currency Exponent	01	
9F 4A	Static Data Authentication Tag List	82	
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 9F 27 01	
9F 51	Application Currency Code [VSDC]	01 24 - CAD	
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [VSDC]	80	
9F 57	Issuer Country Code [VSDC]	01 24 - CAD	
9F 5D	Available Offline Spending Amount [VSDC]	00 00 00 00 00 00	
9F 73	Currency Conversion Parameters [VSDC]	01 24 00 00 00 00 01 24 00 00 00 00 01 24 00 00 00 00 01 24 00 00 00 00 01 24 00 00 00 00	
BF 55	Contactless Counters Data Template		
BF 56	Counters Data Template		
BF 57	International Counters Data Template		
BF 58	Amounts Data Template		
BF 59	Profile Controls Template		
BF 5A	AIP/AFL Entries Template		
BF 5B	Application Internal Data Template	DF 01 02 C0 00	
DF 62	Application Selection Flag [Canada]	40 80	

### 1.3.3 Cardholder Verification Method List (Contact) - AID A0000002771010

Cardholder Verification Method List('0103 0000')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM
2	Fail CVM Processing	Always	Fail

### 1.3.4 Application Tag data (Contact I/F, online)

\* Tag value changes with card usage

Tag	Element name	Data	v2.0
50	Application Label	49 4E 54 45 52 41 43 20 20 20 20 20 20 20 20 20	
57	Track 2 Equivalent Data	47 61 73 90 01 01 01 76 D2 21 22 20 14 83 59 49 00 00 0F	
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 76	



Tag	Element name	Data	v2.0
5F 20	Cardholder Name	55 53 41 20 49 4E 54 45 52 41 43 2F 54 65 73 74 20 43 61 72 64 20 30 33 20 20	
5F 24	Application Expiration Date	22 12 31	
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 [VSDC]	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Authenticate command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile phone	
84	Dedicated File (DF) Name	A0 00 00 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	
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 91 0A	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 01 03 00 00 00 00 00 00	
94	Application File Locator (AFL)	08 01 01 00	
9F 07	Application Usage Control	82 00 BYTE 1: b8 - Domestic cash transactions valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods NOT valid b5 - International goods NOT valid b4 - Domestic services NOT valid b3 - International services NOT valid b2 - ATMs valid b1 - Terminals other than ATMs NOT 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 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 [VSDC]	xx xx 0A xx xx xx xx *	
9F 11	Issuer Code Table Index	02	
9F 12	Application Preferred Name	49 6E 74 65 72 61 63 20 20 20 20 20 20 20 20 20 - 'Interac'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	03	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 36	Application Transaction Counter (ATC)	xx xx *	



Tag	Element name	Data	v2.0
9F 38	Processing Options Data Object List (PDOL)	9F 06 05	
9F 44	Application Currency Exponent	02	
9F 4A	Static Data Authentication Tag List	82	
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 9F 27 01	
9F 51	Application Currency Code [VSDC]	01 24 - CAD	
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [VSDC]	80	
9F 57	Issuer Country Code [VSDC]	01 24 - CAN	
9F 5D	Available Offline Spending Amount [VSDC]	00 00 00 00 00 00	
BF 55	Contactless Counters Data Template		
BF 56	Counters Data Template		
BF 57	International Counters Data Template		
BF 58	Amounts Data Template		
DF 62	Application Selection Flag [Canada]	40 80	





## 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	<b>!</b>	77	01001101	4D	<b>M</b>	121	01111001	79	<b>y</b>
34	00100010	22	<b>"</b>	78	01001110	4E	<b>N</b>	122	01111010	7A	<b>z</b>
35	00100011	23	<b>#</b>	79	01001111	4F	<b>O</b>	123	01111011	7B	{
36	00100100	24	<b>\$</b>	80	01010000	50	<b>P</b>	124	01111100	7C	
37	00100101	25	<b>%</b>	81	01010001	51	<b>Q</b>	125	01111101	7D	}
38	00100110	26	<b>&amp;</b>	82	01010010	52	<b>R</b>	126	01111110	7E	~
39	00100111	27	<b>'</b>	83	01010011	53	<b>S</b>	127	01111111	7F	<b>DEL</b>
40	00101000	28	<b>(</b>	84	01010100	54	<b>T</b>				
41	00101001	29	<b>)</b>	85	01010101	55	<b>U</b>				
42	00101010	2A	<b>*</b>	86	01010110	56	<b>V</b>				
43	00101011	2B	<b>+</b>	87	01010111	57	<b>W</b>				