User Acceptance Test (UAT) ATM
EMV™ Test Card Set

Version 8.00

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Powered by B2

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Revision History

Version	Date	Updated By	Revisions
5.50	October 5, 2016	B2PS	Initial document release
5.60	December 19, 2016	B2PS	• TC 02 Service code corrected in profile table. Card content unchanged but card plastic also corrected so card version changed.
6.00	March 22, 2017	B2PS	• TC 10 - Tag 5A corrected in card, so card version changed.
7.00	January 5, 2018	B2PS	• TC06 - New version v6.0: Discretionary data updated (CVV) • Modified masking of some tags throughout
8.00	October 12, 2018	B2PS	• All cards - Tags 82, 9F07, 9F69 expanded & interpreted • Visa card TC03 - CVM change, Expiry date changed to 22/12 • Amex cards (TC13, TC14) - Expiry date changed to 24/12 • Discover cards (TC15, TC16) - Expiry date changed to 23/12 • DNA card TC17 - PAN changed, Expiry date changed to 25/12

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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 - UL User Acceptance Test ATM Test Card Set Profiles

This User Acceptance Test (UAT) ATM Test Card Set contains 19 cards with at least one card from each of the following card brands.

	Test Card 01	Test Card 02	Test Card 03
Brand	Visa	Visa	Visa
Type	ATM	ATM	Debit
Description	Online Only, Visa Plus	Online Only, Visa Interlink	Visa Debit: • U.S. Common Debit • Global Debit
IIN	-	-	476173
AID	A0000000038010	A0000000033010	A0000000980840 A0000000031010
PAN	4761 7390 0101 0671	4761 7390 0101 0671	4761 7390 0101 0135
Expiry Date	12/2022	12/2022	12/2022
Service Code	221	221	201
Interface	Contact, MSR	Contact, MSR	Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	$20.00	$20.00	$20.00
Issuer Country Code	840 - USA	840 - USA	840 - USA
Application Currency Code	840 - USD	840 - USD	840 - USD
Language	'en' – English	'en' – English	'en' – English
Card Version	v5.1	v5.1	v6.0

	Test Card 04	Test Card 05	Test Card 06
Brand	Visa	Visa	Visa
Type	ATM	Credit	Credit
Description	Dual AID: • Visa Plus • Visa Interlink	Visa Credit	Fallback
IIN	-	-	-
AID	A0000000038010 A0000000033010	A0000000031010	-
PAN	4761 7390 0101 0671	4761 7390 0101 0119	4761 7390 0101 0267
Expiry Date	12/2022	12/2022	12/2022
Service Code	201	201	201
Interface	Contact, MSR	Contact, MSR	MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	$20.00	$10.00	$20.00
Issuer Country Code	840 - USA	840 - USA	-
Application Currency Code	840 - USD	840 - USD	-
Language	'en' – English	'en' – English	-
Card Version	v5.0	v5.0	v6.0

	Test Card 07	Test Card 08	Test Card 09
Brand	Mastercard	Mastercard	Mastercard
Type	ATM	Debit	Debit
Description	Cirrus Card	International Maestro	MasterCard Maestro
IIN	-	-	541333
AID	A0000000046000	A0000000043060	A0000000042203
PAN	67999 78900 00002-0024	67999 9890 0000 2010	5413 3300 8909 9023
Expiry Date	12/2025	12/2025	12/2025
Service Code	201	220	620
Interface	Contact, MSR	Contact, MSR	Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	$20.00	$20.00	$20.00
Issuer Country Code	840 - USA	840 - USA	840 - USA
Application Currency Code	840 - USD	840 - USD	840 - USD
Language	'en' – English	'en' – English	'en' – English
Card Version	v5.0	v5.0	v5.0

	Test Card 10	Test Card 11	Test Card 12
Brand	Mastercard	Mastercard	Mastercard
Type	Debit	ATM	Credit
Description	Mastercard Debit: • U.S. Common Debit • Global Debit	Cirrus Card	Fallback
IIN	541333	-	-
AID	A0000000042203 A0000000041010	A0000000041010	-
PAN	5413 3300 8909 9130	5413 3300 8960 4111	5413 3300 8902 0029
Expiry Date	12/2022	12/2022	12/2022
Service Code	201	201	201
Interface	Contact, MSR	Contact, MSR	MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	$20.00	$20.00	$20.00
Issuer Country Code	840 - USA	840 - USA	
Application Currency Code	840 - USD	840 - USD	
Language	'en' – English	'en' – English	
Card Version	v5.2	v5.0	v5.0

	Test Card 13	Test Card 14	Test Card 15
Brand	American Express	American Express	Discover
Type	Credit	Credit	Credit
Description	Amex Credit	Fallback	Discover Credit
IIN	-	-	-
AID	A0000000002501	-	A0000001523010
PAN	3742 450017 51006	3742 450037 31006	6510 0000 0000 0216
Expiry Date	12/2024	12/2024	12/2023
Service Code	201	201	201
Interface	Contact, MSR	MSR	Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	$68.00	$36.00	$160.00
Issuer Country Code	840 - USA		840 - USA
Application Currency Code	840 - USD		840 - USD
Language	'en' – English		'en' – English
Card Version	v6.0	v6.0	v6.0

	Test Card 16	Test Card 17	Test Card 18
Brand	Discover	DNA	Interac
Type	Credit	Debit	Debit
Description.	Fallback	Debit Network Alliance Debit	Canadian Debit
IIN	-		
AID	-	A0000006200620	A0000002771010
PAN	6510 0000 0000 0331	4000 0000 0000 0028	4506 4450 0693 1933
Expiry Date	12/2023	12/2025	12/2022
Service Code	201	201	220
Interface	MSR	Contact, MSR	Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	$26.00	$20.00	$20.00
Issuer Country Code		840 - USA	124 - CAN
Application Currency Code		840 - USD	124 – CAD
Language		'en' – English	'en' – English
Card Version	v6.0	v6.0	v5.0

	Test Card 19
Brand	Interac
Type	Debit
Description.	Canadian Debit
IIN	
AID	A0000002771010
PAN	4506 4450 0693 1933
Expiry Date	12/2022
Service Code	220
Interface	Contact, MSR
CVM	See card definition
Approval Amount	$20.00
Issuer Country Code	124 – CAN
Application Currency Code	124 - CAD
Language	'fr' – French
Card Version	v5.0

1.1 Test Card 01 – Visa Plus, Credit, English, USA, USD

A Visa Plus card with Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

1.1.1 Cardholder Verification Method List

Cardholder Verification Method List ('4201 4204 5E03 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Next CVM
2	Online PIN	Manual Cash	Next CVM
3	Signature (paper)	Terminal supports CVM type	Next CVM
4	No CVM required	Always	Fail

1.1.2 Application Tag data

* Tag value changes with card usage

Tag	Element name	Data Card v5.0
50	Application Label	56 49 53 41 20 50 4C 55 53 - 'VISA PLUS'
57	Track 2 Equivalent Data	47 61 73 90 01 01 06 71 D2 21 22 21 13 50 61 46 89 00 0F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 06 71
5F 20	Cardholder Name	55 41 54 20 41 54 4D 2F 54 65 73 74 20 43 61 72 64 20 30 31 20 20 20 20 20 20 - 'UAT ATM/Test Card 01'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 21
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 Auth command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile handset
84	Dedicated File (DF) Name	A0 00 00 00 03 80 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 42 01 42 04 5E 03 1F 00
8F	Certification Authority Public Key Index	92

Tag	Element name	Data	Card v5.0
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	85 CE 1E 26 DF 48 66 91 37 41 28 59 B9 4C 9A A9 FC B7 87 D4 9A 16 31 12 5E 05 14 90 A1 29 F0 26 21 67 F2 A1 40 17 05 2D B8 9F 91 33 42 A5 CB 29 1C 5B DE AF 0E A8 A5 8C B7 F8 BD EC B3 34 6B 3B 01 72 9F 6F 3D 4D E2 8D DF 46 C6 CC 04 53 6E 79 25 8B 72 BB 7E B3 31 F1 33 F9 C7 15 28 4A 5D 72 FC F4 53 AD B6 A9 AF B5 E7 F4 27 00 42 23 19 73 76 72 46 F3 C0 BC D0 DF 4B 1B E9 6A 8D 15 C1 BB E6 31 83 72 A5 B3 DA D3 90 06 BB 77 F6 AE BB 0B 6C BE 22 43 E1 3E D1 89 9D 12 73 C4 0E 20 B2 30 1C 58 F9 68 07 AF AB AF 9F 94 3C 4F 05 01 1B 44	
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 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 96	
9F 0D	Issuer Action Code - Default	B0 50 80 88 00	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	B0 50 80 98 00	
9F 10	Issuer Application Data [VSDC]	xx xx 0A xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	56 69 73 61 20 50 6C 75 73 - 'Visa Plus'	

Tag	Element name	Data	Card v5.0
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	09	
9F 1F	Track 1 Discretionary Data	31 33 35 30 36 30 30 31 34 36 30 30 30 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 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	6C BC B1 D5 03 4F 41 F1 A7 47 C4 77 80 3D FD 4E A8 A4 9B 2E 72 ED 32 78 3A DA AD 32 92 0B D4 00 22 1E 4C F9 87 8A 16 E9 A8 4E 60 8F 6E 65 9C FE 04 8B 8C 8E C4 4D 13 A1 8F D4 C2 32 64 97 CF 1F 1B 5A 22 65 74 8E 4C AB 94 87 09 51 23 EB 83 EB 2C 9D 93 54 E2 2F 5E 84 07 45 CF E8 3A 13 5A 7C 0D 0F AF 8A 78 C3 1F 91 5C B5 2D C1 B9 87 CB 6D A6 74 16 D0 3F 86 03 ED B9 D7 D3 0D CD 01 38 41 FF 1F 29 B8 A3 CB 9F BF F6 2E 54 EC 0D 10 2C BD 15 37 4B FD 3D 61 48 14 97 33 5C 75 20 FB 81 30 80 5C 9E 81 45 2D 21 50 59 32 19 63 AC D9 73 68	
9F 47	ICC Public Key Exponent	03	
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04	
9F 4A	Static Data Authentication Tag List	82	
9F 51	Application Currency Code [VSDC]	08 40 - USD	
9F 52	Application Default Action [VSDC VIS 1.5]	C0 00 00 00 00 00	
9F 53	Consecutive Transaction Limit (International) [VSDC]	00	
9F 54	Cumulative Total Transaction Amount Limit [VSDC]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [VSDC]	80	
9F 57	Issuer Country Code [VSDC]	08 40 - USA	
9F 58	Consecutive Transaction Counter Limit [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 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	

Tag	Element name	Data	Card v5.0
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 00 DF 31 01 00	
BF 56	Counters Data Template	DF 11 01 03 DF 21 01 00 DF 31 01 00	
BF 57	International Counters Data Template	DF 11 01 03 DF 21 01 00 DF 31 01 00 DF 51 01 03	
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 Interlink, Credit, English, USA, USD

A Visa Interlink card with Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

1.2.1   Cardholder Verification Method List

Cardholder Verification Method List ('4201 4204 5E03 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Next CVM
2	Online PIN	Manual Cash	Next CVM
3	Signature (paper)	Terminal supports CVM type	Next CVM
4	No CVM required	Always	Fail

1.2.2   Application Tag data

* Tag value changes with card usage

Tag	Element name	Data	Card v5.0
50	Application Label	56 49 53 41 20 49 4E 54 45 52 4C 49 4E 4B - 'VISA INTERLINK'	
57	Track 2 Equivalent Data	47 61 73 90 01 01 06 71 D2 21 22 21 13 50 61 46 89 00 0F	
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 06 71	
5F 20	Cardholder Name	55 41 54 20 41 54 4D 2F 54 65 73 74 20 43 61 72 64 20 30 32 20 20 20 20 20 20 - 'UAT ATM/Test Card 02'	
5F 24	Application Expiration Date	22 12 31	
5F 25	Application Effective Date	xx xx xx	
5F 28	Issuer Country Code	08 40 - USA	
5F 2D	Language Preference	65 6E - 'en' (English)	
5F 30	Service Code	02 21	
5F 34	Application PAN Sequence Number	01	

Tag	Element name	Data	Card v5.0
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 Auth command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile handset	
84	Dedicated File (DF) Name	A0 00 00 00 03 30 10	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 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 42 01 42 04 5E 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	85 CE 1E 26 DF 48 66 91 37 41 28 59 B9 4C 9A A9 FC B7 87 D4 9A 16 31 12 5E 05 14 90 A1 29 F0 26 21 67 F2 A1 40 17 05 2D B8 9F 91 33 42 A5 CB 29 1C 5B DE AF 0E A8 A5 8C B7 F8 BD EC B3 34 6B 3B 01 72 9F 6F 3D 4D E2 8D DF 46 C6 CC 04 53 6E 79 25 8B 72 BB 7E B3 31 F1 33 F9 C7 15 28 4A 5D 72 FC F4 53 AD B6 A9 AF B5 E7 F4 27 00 42 23 19 73 76 72 46 F3 C0 BC D0 DF 4B 1B E9 6A 8D 15 C1 BB E6 31 83 72 A5 B3 DA D3 90 06 BB 77 F6 AE BB 0B 6C BE 22 43 E1 3E D1 89 9D 12 73 C4 0E 20 B2 30 1C 58 F9 68 07 AF AB AF 9F 94 3C 4F 05 01 1B 44	

Tag	Element name	Data Card v5.0
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` 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 96`
9F 0D	Issuer Action Code - Default	`B0 50 80 88 00`
9F 0E	Issuer Action Code - Denial	`00 00 00 00 00`
9F 0F	Issuer Action Code - Online	`B0 50 80 98 00`
9F 10	Issuer Application Data [VSDC]	`xx xx 0A xx xx xx *`
9F 11	Issuer Code Table Index	`01`
9F 12	Application Preferred Name	`56 69 73 61 20 49 6E 74 65 72` `6C 69 6E 6B` - 'Visa Interlink'
9F 13	Last Online Application Transaction Counter (ATC) Register	`xx xx *`
9F 17	Personal Identification Number (PIN) Try Counter	`09`

9F 1F	Track 1 Discretionary Data	`31 33 35 30 36 30 30 31 34 36`
		`30 30 30 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 44	Application Currency Exponent	`02`

9F 46	ICC Public Key Certificate	`26 5C 98 E7 E3 9F 8E AE 75 06`
		`18 7F 98 9E 4F D6 13 29 B5 4E`
		`4C DB B1 0B C7 CB D8 C5 7E 89`
		`09 0C 69 56 74 05 96 A1 49 7D`
		`83 71 B2 B0 98 9A 62 B8 85 23`
		`D3 C3 03 FB 37 BF 15 99 74 C7`
		`6D B4 C9 13 15 A6 01 89 9E A6`
		`A2 E1 1E B4 C0 E9 4E 01 4A E8`
		`54 38 00 C2 05 72 9A 74 7D 9F`
		`A1 51 69 8A 31 D4 4C 9B 96 D4`
		`90 D3 AD 75 CC 31 70 C2 4B 73`
		`0A DE B0 31 83 DA E4 84 EB 22`
		`CC AB A2 06 75 9D 7C FC F1 79`
		`A4 C1 F0 E8 7D 91 EE B3 8E B4`
		`63 4C 95 F5 D2 0E 0F EB D2 8A`
		`A1 9E F7 CA 32 A8 9F EF A8 67`
		`62 6D 9A 45 86 6C 69 89 54 8F`
		`70 CF 57 5F CC 8D`

9F 47	ICC Public Key Exponent	`03`
9F 49	Dynamic Data Authentication Data Object List (DDOL)	`9F 37 04`
9F 4A	Static Data Authentication Tag List	`82`
9F 51	Application Currency Code [VSDC]	`08 40` - USD
9F 52	Application Default Action [VSDC VIS 1.5]	`C0 00 00 00 00 00`
9F 53	Consecutive Transaction Limit (International) [VSDC]	`00`

Tag	Element name	Data	Card v5.0
9F 54	Cumulative Total Transaction Amount Limit [VSDC]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [VSDC]	80	
9F 57	Issuer Country Code [VSDC]	08 40 - USA	
9F 58	Consecutive Transaction Counter Limit [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 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 00 DF 31 01 00	
BF 56	Counters Data Template	DF 11 01 03 DF 21 01 00 DF 31 01 00	
BF 57	International Counters Data Template	DF 11 01 03 DF 21 01 00 DF 31 01 00 DF 51 01 03	
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	

1.3   Test Card 03 – Visa, Dual AID, Debit, English, USA, USD

A Visa debit card with two AIDs, Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

1.3.1   Cardholder Verification Method List – AID (A0000000980840)

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

1.3.2   Application Tag data – AID (A0000000980840)

* Tag value changes with card usage

Tag	Element name	Data	Card v6.0
42	Issuer Identification Number (IIN)	47 61 73	
50	Application Label	55 53 20 44 45 42 49 54 20 20 20 20 20 20 20 20 - 'US DEBIT'	

Tag	Element name	Data Card v6.0
57	Track 2 Equivalent Data	`47 61 73 90 01 01 01 35 D2 21` `22 01 19 55 94 58 00 00 0F`
5A	Application Primary Account Number (PAN)	`47 61 73 90 01 01 01 35`

5F 20	Cardholder Name	`55 53 41 20 41 54 4D 2F 54 65`
		`73 74 20 43 61 72 64 20 30 33`
		`20 20 20 20 20 20` - 'UAT ATM/Test Card 03'

5F 24	Application Expiration Date	`22 12 31`
5F 25	Application Effective Date	`xx xx xx`
5F 28	Issuer Country Code	`08 40` - USA
5F 2D	Language Preference	`65 6E` - 'en' (English)
5F 30	Service Code	`02 01`
5F 34	Application PAN Sequence Number	`01`
5F 55	Issuer Country Code (alpha2 format)	`55 53` - 'US'
82	Application Interchange Profile [VIS]	`18 00` BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Auth command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile handset
84	Dedicated File (DF) Name	`A0 00 00 00 98 08 40`
87	Application Priority Indicator	`02`

8C	Card Risk Management Data Object List 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 02 01` `02 05 42 00 1F 00 00 00 00 00`
94	Application File Locator (AFL)	`08 01 02 00`
9F 07	Application Usage Control	`AB 80` BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs NOT valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed
9F 08	Application Version Number [VIS]	`00 96`
9F 0D	Issuer Action Code - Default	`FC 50 AC 88 00`
9F 0E	Issuer Action Code - Denial	`00 00 00 00 00`
9F 0F	Issuer Action Code - Online	`FC 70 BC 98 00`
9F 10	Issuer Application Data [VIS 1.6]	`xx xx 0A xx xx xx xx *`
9F 11	Issuer Code Table Index	`01`
9F 12	Application Preferred Name	`55 53 20 44 65 62 69 74 20 20` `20 20 20 20 20 20`
9F 13	Last Online Application Transaction Counter (ATC) Register	`xx xx` - 'UAT ATM/Test Card 03'

Tag	Element name	Data	Card v6.0
9F 17	Personal Identification Number (PIN) Try Counter	`01`	
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 42	Application Currency Code	`08 40` - USD	
9F 44	Application Currency Exponent	`02`	
9F 4F	Transaction Log Format	`9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 9F 27 01`	
9F 51	Application Currency Code [VSDC]	`08 40` - USD	
9F 52	Application Default Action [VSDC VIS 1.6]	`00 00 00 00 00 00`	
9F 56	Issuer Authentication Indicator [VSDC]	`80`	
9F 57	Issuer Country Code [VSDC]	`08 40` - USA	
9F 5D	Available Offline Spending Amount [VSDC]	`00 00 00 00 00 00`	
9F 68	Card Additional Processes [qVSDC VCPS 2.2]	`10 00 80 00`	
BF 55	Contactless Counters Data Template		
BF 56	Counters Data Template		
BF 57	International Counters Data Template		
BF 58	Amounts Data Template		
BF 59	Profile Controls Template		
BF 5A	AIP/AFL Entries Template		
BF 5B	Application Internal Data Template	`DF 01 02 00 00`	

1.3.3 Cardholder Verification Method List – AID (A0000000031010)

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

1.3.4 Application Tag data – AID (A0000000031010)

* Tag value changes with card usage

Tag	Element name	Data	Card v6.0
42	Issuer Identification Number (IIN)	`47 61 73`	
50	Application Label	`56 49 53 41 20 44 45 42 49 54 20 20 20 20 20 20` - 'VISA DEBIT'	
57	Track 2 Equivalent Data	`47 61 73 90 01 01 01 35 D2 21 22 01 19 55 94 58 00 00 0F`	
5A	Application Primary Account Number (PAN)	`47 61 73 90 01 01 01 35`	
5F 20	Cardholder Name	`55 53 41 20 41 54 4D 2F 54 65 73 74 20 43 61 72 64 20 30 33 20 20 20 20 20 20` - 'UAT ATM/Test Card 03'	
5F 24	Application Expiration Date	`22 12 31`	
5F 25	Application Effective Date	`xx xx xx`	
5F 28	Issuer Country Code	`08 40` - USA	

Tag	Element name	Data	Card v6.0
5F 2D	Language Preference	`65 6E` - 'en' (English)	
5F 30	Service Code	`02 01`	
5F 34	Application PAN Sequence Number	`01`	
5F 55	Issuer Country Code (alpha2 format)	`55 53` - 'en'	
82	Application Interchange Profile [VIS]	`18 00` BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Auth command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile handset	
84	Dedicated File (DF) Name	`A0 00 00 00 03 10 10`	
87	Application Priority Indicator	`01`	
8C	Card Risk Management Data Object List 1 (CDOL1)	`9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04`	
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 02 01 42 04 1E 04 02 05 5E 00 42 00 1F 00`	
94	Application File Locator (AFL)	`08 01 02 00`	
9F 07	Application Usage Control	`FF 80` BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed	
9F 08	Application Version Number [VIS]	`00 96`	
9F 0D	Issuer Action Code - Default	`FC 50 AC 88 00`	
9F 0E	Issuer Action Code - Denial	`00 00 00 00 00`	
9F 0F	Issuer Action Code - Online	`FC 70 BC 98 00`	
9F 10	Issuer Application Data [VIS 1.6]	`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`	
9F 13	Last Online Application Transaction Counter (ATC) Register	`xx xx *`	
9F 17	Personal Identification Number (PIN) Try Counter	`01`	
9F 26	Application Cryptogram (AC)	`xx xx xx xx xx xx xx xx *`	
9F 27	Cryptogram Information Data (CID)	`80`	
9F 36	Application Transaction Counter (ATC)	`xx xx *`	
9F 42	Application Currency Code	`08 40` - USD	
9F 44	Application Currency Exponent	`02`	

Tag	Element name	Data	Card v6.0
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 1A 02 95 05 9C 01 9F 27 01	
9F 51	Application Currency Code [VSDC]	08 40 - USD	
9F 52	Application Default Action [VSDC VIS 1.6]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [VSDC]	80	
9F 57	Issuer Country Code [VSDC]	08 40 - USA	
9F 5D	Available Offline Spending Amount [VSDC]	00 00 00 00 00 00	
9F 68	Card Additional Processes [qVSDC VCPS 2.2]	10 00 10 00	
BF 55	Contactless Counters Data Template		
BF 56	Counters Data Template		
BF 57	International Counters Data Template		
BF 58	Amounts Data Template		
BF 59	Profile Controls Template		
BF 5A	AIP/AFL Entries Template		
BF 5B	Application Internal Data Template	DF 01 02 00 00	

1.4   Test Card 04 – Visa, Dual AID, ATM, English, USA, USD

A Visa ATM (Plus/Interlink) card with two AIDs, Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

1.4.1   Cardholder Verification Method List – AID (A0000000038010)

Cardholder Verification Method List ('4201 4204 5E03 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Next CVM
2	Online PIN	Manual Cash	Next CVM
3	Signature (paper)	Terminal supports CVM type	Next CVM
4	No CVM required	Always	Fail

1.4.2   Application Tag data – AID (A0000000038010)

* Tag value changes with card usage

Tag	Element name	Data	Card v5.0
42	Issuer Identification Number (IIN)	47 61 73	
50	Application Label	50 4C 55 53 - 'PLUS'	
57	Track 2 Equivalent Data	47 61 73 90 01 01 06 71 D2 21 22 21 13 50 61 46 89 00 0F	
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 06 71	
5F 20	Cardholder Name	55 41 54 20 41 54 4D 2F 54 65 73 74 20 43 61 72 64 20 30 34 20 20 20 20 20 20 - 'UAT ATM/Test Card 04'	
5F 24	Application Expiration Date	22 12 31	
5F 28	Issuer Country Code	08 40 - USA	
5F 2D	Language Preference	65 6E - 'en' (English)	
5F 30	Service Code	02 21	
5F 34	Application PAN Sequence Number	01	
5F 55	Issuer Country Code (alpha2 format)	55 53	

Tag	Element name	Data Card v5.0
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 Auth command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile handset
84	Dedicated File (DF) Name	A0 00 00 00 03 80 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 42 01 42 04 5E 03 1F 00
94	Application File Locator (AFL)	08 02 02 00 08 03 04 02
9F 07	Application Usage Control	C3 00 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods NOT valid b5 - International goods NOT valid b4 - Domestic services NOT valid b3 - International services NOT valid b2 - ATMs NOT valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	00 96
9F 0D	Issuer Action Code - Default	FC 50 AC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC 70 BC 98 00
9F 10	Issuer Application Data [VSDC]	xx xx 0A xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	50 4C 55 53 - 'PLUS'
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List (PDOL)	9F 06 06
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]	08 40 - USD
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00 00 00
9F 56	Issuer Authentication Indicator [VSDC]	00
9F 57	Issuer Country Code [VSDC]	08 40 - USA
BF 55	Contactless Counters Data Template	

Tag	Element name	Data	Card v5.0
BF 56	Counters Data Template		
BF 57	International Counters Data Template		
BF 58	Amounts Data Template		
BF 59	Profile Controls Template	`DF 11 0B 10 00 00 00 00 00 00 00 00 00 00 DF 12 0B 20 00 00 00 00 00 00 00 00 00 00`	
BF 5A	AIP/AFL Entries Template	`DF 11 0B 1C 00 08 08 02 02 00 08 03 04 02 DF 12 0F 1C 00 0C 08 02 02 00 08 03 03 01 08 05 05 01`	
BF 5B	Application Internal Data Template	`DF 01 02 C0 00 DF 02 01 F1`	

1.4.3 Cardholder Verification Method List – AID (A0000000033010)

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

1.4.4 Application Tag data – AID (A0000000033010)

* Tag value changes with card usage

Tag	Element name	Data	Card v5.0
42	Issuer Identification Number (IIN)	`47 61 73`	
50	Application Label	`49 4E 54 45 52 4C 49 4E 4B` - 'INTERLINK'	
57	Track 2 Equivalent Data	`47 61 73 90 01 01 06 71 D2 21 22 21 13 50 61 46 89 00 0F`	
5A	Application Primary Account Number (PAN)	`47 61 73 90 01 01 06 71`	
5F 20	Cardholder Name	`55 41 54 20 41 54 4D 2F 54 65 73 74 20 43 61 72 64 20 30 34 20 20 20 20 20 20` - 'UAT ATM/Test Card 04'	
5F 24	Application Expiration Date	`22 12 31`	
5F 28	Issuer Country Code	`08 40` - USA	
5F 2D	Language Preference	`65 6E` - 'en' (English)	
5F 30	Service Code	`02 21`	
5F 34	Application PAN Sequence Number	`01`	
5F 55	Issuer Country Code (alpha2 format)	`55 53`	
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 Auth command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile handset	
84	Dedicated File (DF) Name	`A0 00 00 00 03 30 10`	
87	Application Priority Indicator	`02`	

Tag	Element name	Data Card v5.0
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 02 01 00 04 02 05 42 00 1F 00
94	Application File Locator (AFL)	08 02 02 00 08 03 03 01 08 05 05 01
9F 07	Application Usage Control	29 80 BYTE 1: b8 - Domestic cash trans. NOT 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 NOT valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback NOT allowed
9F 08	Application Version Number	00 96
9F 0D	Issuer Action Code - Default	FC 50 AC 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	FC 70 BC 98 00
9F 10	Issuer Application Data [VSDC]	xx xx 0A xx xx xx xx
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	49 4E 54 45 52 4C 49 4E 4B - 'INTERLINK'
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 38	Processing Options Data Object List (PDOL)	9F 06 06
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]	08 40 - USD
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00 00 00
9F 56	Issuer Authentication Indicator [VSDC]	00
9F 57	Issuer Country Code [VSDC]	08 40 - USA
BF 55	Contactless Counters Data Template	
BF 56	Counters Data Template	
BF 57	International Counters Data Template	
BF 58	Amounts Data Template	
BF 59	Profile Controls Template	DF 11 0B 10 00 00 00 00 00 00 00 00 00 00 DF 12 0B 20 00 00 00 00 00 00 00 00 00 00
BF 5A	AIP/AFL Entries Template	DF 11 0B 1C 00 08 08 02 02 00 08 03 04 02 DF 12 0F 1C 00 0C 08 02 02 00 08 03 03 01 08 05 05 01
BF 5B	Application Internal Data Template	DF 01 02 C0 00 DF 02 01 F1

1.5 Test Card 05 – Visa, Credit, English, USA, USD

A Visa credit card with Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

1.5.1 Cardholder Verification Method List

Cardholder Verification Method List ('4201 4204 5E03 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Next CVM
2	Online PIN	Manual Cash	Next CVM
3	Signature (paper)	Terminal supports CVM type	Next CVM
4	No CVM required	Always	Fail

1.5.2 Application Tag data

* Tag value changes with card usage

Tag	Element name	Data Card v5.0
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 01 19 D2 21 22 01 11 43 80 44 00 00 0F
5A	Application Primary Account Number (PAN)	47 61 73 90 01 01 01 19
5F 20	Cardholder Name	55 41 54 20 41 54 4D 2F 54 65 73 74 20 43 61 72 64 20 30 35 20 20 20 20 20 20 - 'UAT ATM/Test Card 05'
5F 24	Application Expiration Date	22 12 31
5F 25	Application Effective Date	xx xx xx
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile [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 Auth command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Mag-stripe mode NOT supported b7 - Is NOT Mobile handset
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10
87	Application Priority Indicator	01
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04
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 42 01 42 04 5E 03 1F 00
8F	Certification Authority Public Key Index	92

Tag	Element name	Data	Card v5.0
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	6A 8D 68 62 11 99 DD 0F 8E 41 F2 EC 49 AA 0F D5 81 A9 34 AD 7D CF B3 59 EE A3 7B 24 C1 DA FF 5D F8 2B 30 16 AE C9 30 8F 36 B3 C7 93 63 69 03 6A F3 A6 BB 6A F5 D0 F5 3B B2 EC D2 43 37 A0 6C 24 12 09 A4 9E B5 40 B2 67 4F 88 C1 F0 4C 73 37 DA 4F 67 E1 66 42 0F EA 6A 57 72 E7 3D 5C 00 C7 5D AF E4 4D A8 DA 4A 88 15 FD 5D B3 1A A9 64 E2 75 BF FF 33 C0 C4 3D CD 40 A8 B9 38 77 D4 45 C0 3D 4F 5C 30 B3 B9 EA A3 76 A5 05 22 90 EF 05 31 0A 72 11 61 94 D4 FA 99 3B 44 22 76 5D 26 D3 3D CA 05 4B AC BC C7 84 22 43 14 49 05 CD 8C F8 69 B9	
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 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 96	
9F 0D	Issuer Action Code - Default	B0 50 80 88 00	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	B0 50 80 98 00	
9F 10	Issuer Application Data [VSDC]	xx xx 0A xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	56 69 73 61 20 43 72 65 64 69 74 - 'Visa Credit'	

Tag	Element name	Data	Card v5.0
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 31 34 33 38 30 34 34 30 30`
		`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 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	`94 53 B8 33 93 F9 15 51 7D 55`
		`C3 16 5D 11 EB 8C E9 B9 04 1D`
		`8F C3 6A BA 37 76 75 C7 85 94`
		`74 72 57 A7 89 E9 F9 6E F1 74`
		`3C 7E 19 13 DC 88 C0 66 64 22`
		`BD 40 6C C9 06 83 03 78 E8 8D`
		`18 95 DA 03 8C 71 C3 E2 8E C9`
		`89 19 7B B4 81 CF AA 11 6C 16`
		`3F C8 83 68 13 0B A5 AC 38 CB`
		`23 AB 7B 20 C8 4B 75 ED 8B 68`
		`08 5C B9 16 70 EE 48 E0 3B 24`
		`06 3F 51 04 27 0D 6E 7B 59 1F`
		`33 F4 E1 AE 6D F7 9C CF D5 07`
		`64 3B 9D A0 45 77 01 D0 DE 89`
		`5E CA A9 D6 49 BD 0E 39 86 EF`
		`F7 3C 2B 28 66 FC F9 23 55 55`
		`1E 1A CF 68 FB A4 E7 BB A1 BD`
		`E4 13 8C DB 14 6D`	

9F 47	ICC Public Key Exponent	`03`	
9F 49	Dynamic Data Authentication Data Object List (DDOL)	`9F 37 04`	
9F 4A	Static Data Authentication Tag List	`82`	
9F 51	Application Currency Code [VSDC]	`08 40` - USD	
9F 52	Application Default Action [VSDC VIS 1.5]	`C0 00 00 00 00 00`	
9F 53	Consecutive Transaction Limit (International) [VSDC]	`00`	
9F 54	Cumulative Total Transaction Amount Limit [VSDC]	`00 00 00 00 00 00`	
9F 56	Issuer Authentication Indicator [VSDC]	`80`	
9F 57	Issuer Country Code [VSDC]	`08 40` - USA	
9F 58	Consecutive Transaction Counter Limit [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 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`	

Tag	Element name	Data	Card v5.0
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 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 02	
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	

1.6 Test Card 06 – Visa, Technical Fallback Card

This card has a chip image printed on the card but it does not contain an actual chip.

When inserted, a chip error will be detected.

This should trigger Technical Fallback processing and the transaction should continue as a magstripe Technical Fallback transaction.

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

Note: The test host may Approve / Decline based on its configuration with respect to CVV processing.

1.7 Test Card 07 – Mastercard, Credit, English, USA, USD

A Mastercard Cirrus credit card with Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

1.7.1 Cardholder Verification Method List

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

1.7.2 Application Tag data

* Tag value changes with card usage

Tag	Element name	Data	Card v5.0
50	Application Label	4D 43 20 43 49 52 52 55 53 - 'MC CIRRUS'	
57	Track 2 Equivalent Data	67 99 97 89 00 00 00 00 02 4D 25 12 20 10 84 46 07 00 0F	
5A	Application Primary Account Number (PAN)	67 99 97 89 00 00 00 00 02 4F	
5F 20	Cardholder Name	55 41 54 20 41 54 4D 2F 54 65 73 74 20 43 61 72 64 20 30 37 20 20 20 - 'UAT ATM/Test Card 07'	
5F 24	Application Expiration Date	25 12 31	

Tag	Element name	Data	Card v5.0
5F 25	Application Effective Date	`xx xx xx`	
5F 28	Issuer Country Code	`08 40` - USA	
5F 2D	Language Preference	`65 6E` - 'en' (English)	
5F 30	Service Code	`02 01`	
5F 34	Application PAN Sequence Number	`03`	
82	Application Interchange Profile [M/Chip, PayPass]	`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 Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported	
84	Dedicated File (DF) Name	`A0 00 00 00 04 60 00`	
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`	
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 42 01 5E 03 1F 03`	
8F	Certification Authority Public Key Index	`FA`	
90	Issuer Public Key Certificate	`18 89 B9 97 E6 FC E8 4B 4A E7 AB 87 43 1C BD B3 DF 8C 1D 5A 55 A7 F6 0D 29 59 AF 3A 51 04 E7 58 83 17 ED 74 08 66 68 CF 1A 05 47 84 F7 49 3C 6D 74 7F A7 96 EC 14 D3 33 A6 8E C7 E0 08 62 95 9A 0B D0 F0 48 20 80 B7 1A C1 B7 62 5B 1B 8B 1F 35 A6 69 19 99 BA 78 F5 92 E2 3F 95 E9 96 09 D1 08 CF 1C 0E 30 8A 8B F6 4F BD E8 37 D3 CE 13 8A 50 DC 50 AF 4B 41 EE 53 D9 8A 11 B6 A8 1D DD 44 CC 43 0C 1E F3 BB 9D 1D 75 A0 2F AA 9C 81 4A FC 58`	
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` 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`	

Tag	Element name	Data	Card v5.0
9F 0D	Issuer Action Code - Default	B0 50 9C 80 00	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00	
9F 10	Issuer Application Data [M/Chip 4]	xx 10 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 43 20 43 69 72 72 75 73 - 'MC Cirrus'	
9F 14	Lower Consecutive Offline Limit	00	
9F 17	Personal Identification Number (PIN) Try Counter	03	
9F 1F	Track 1 Discretionary Data	30 38 34 34 36 30 37 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30	
9F 23	Upper Consecutive Offline Limit	00	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 42	Application Currency Code	08 40 - USD	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	6D 3E 39 2D 25 95 92 B1 9E 9D 25 C7 F2 CE 98 F5 34 62 36 00 4D 1D A4 6E 65 BA 76 EE BB 65 0E 40 8B 2A AC 96 7D 35 D3 B3 9E 95 F7 D0 7D BA 88 86 09 17 EA 39 D8 A1 DE AD 84 DF 42 E0 0C 3B 35 3E F7 E9 F4 AC 77 1E F4 1B 6A 66 DF BC C2 2E EC C5 A5 0A 68 00 72 26 04 DF 89 E7 9F 7E 2F 48 5F DD 63 0A BB 2B 97 94 D7 AE 4B 9A C8 DD C4 20 40 8C	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	5C 6A 0A 57 58 17 25 C9 F2 5A E8 A2 98 42 5F F5 A5 65 E9 A0 FE 48 8C C4 60 13 57 47 91 10 58 A5 AC 4F 96 A6 72 97 77 73 59 4F	
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04	
9F 4A	Static Data Authentication Tag List	82	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06	
9F 6E	Third Party Data [MasterCard]	08 40 00 00 30 30 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
9F 7E	Application Life Cycle Data [MasterCard]	03 10 0C 12 00 09 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 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]	46 58 00	
C5	Card Issuer Action Code - Online [MasterCard]	06 F8 00	

Tag	Element name	Data Card v5.0
C6	Counters [MasterCard]	00 03 00 00 00 00 00 00 00 00
C7	CDOL1 Related Data Length [MasterCard]	2B
C8	CRM Country Code [MasterCard]	08 40 - USA
C9	CRM Currency Code [M/Chip4]	08 40 - USD
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
CD	Card Issuer Action Code - Default [PayPass M/Chip]	00 58 00
CE	Card Issuer Action Code - Online [PayPass M/Chip]	00 F8 00
CF	Card Issuer Action Code - Denial [PayPass M/Chip]	00 00 00
D1	Currency Conversion Table [M/Chip]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 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 12
D7	Application Control [PayPass M/Chip]	40 00 40
DF 02	Security Limits Status [MasterCard]	00

1.8   Test Card 08 – Mastercard Int'l Maestro, Debit, English, USA, USD

A Mastercard International Maestro debit card with Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

1.8.1   Cardholder Verification Method List

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

1.8.2   Application Tag data

* Tag value changes with card usage

Tag	Element name	Data Card v5.0
50	Application Label	4D 41 45 53 54 52 4F - 'MAESTRO'
57	Track 2 Equivalent Data	67 99 99 89 00 00 02 01 0D 25 12 22 00 83 55 06 06 00 0F
5A	Application Primary Account Number (PAN)	67 99 99 89 00 00 02 01 0F
5F 20	Cardholder Name	55 41 54 20 41 54 4D 2F 54 65 73 74 20 43 61 72 64 20 30 38 20 20 20 20 20 - 'UAT ATM/Test Card 08'
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	xx xx xx
5F 28	Issuer Country Code	08 40 - USA

Tag	Element name	Data	Card v5.0
5F 2D	Language Preference	`65 6E` - 'en' (English)	
5F 30	Service Code	`02 20`	
5F 34	Application PAN Sequence Number	`31`	
82	Application Interchange Profile [M/Chip, PayPass]	`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 Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported	
84	Dedicated File (DF) Name	`A0 00 00 00 04 30 60`	
87	Application Priority Indicator	`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`	
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 42 01 5E 03 1F 03`	
8F	Certification Authority Public Key Index	`FA`	
90	Issuer Public Key Certificate	`18 89 B9 97 E6 FC E8 4B 4A E7 AB 87 43 1C BD B3 DF 8C 1D 5A 55 A7 F6 0D 29 59 AF 3A 51 04 E7 58 83 17 ED 74 08 66 68 CF 1A 05 47 84 F7 49 3C 6D 74 7F A7 96 EC 14 D3 33 A6 8E C7 E0 08 62 95 9A 0B D0 F0 48 20 80 B7 1A C1 B7 62 5B 1B 8B 1F 35 A6 69 19 99 BA 78 F5 92 E2 3F 95 E9 96 09 D1 08 CF 1C 0E 30 8A 8B F6 4F BD E8 37 D3 CE 13 8A 50 DC 50 AF 4B 41 EE 53 D9 8A 11 B6 A8 1D DD 44 CC 43 0C 1E F3 BB 9D 1D 75 A0 2F AA 9C 81 4A FC 58`	
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` BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed	
9F 08	Application Version Number	`00 02`	
9F 0D	Issuer Action Code - Default	`B0 50 9C 80 00`	
9F 0E	Issuer Action Code - Denial	`00 00 00 00 00`	

Tag	Element name	Data	Card v5.0
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00	
9F 10	Issuer Application Data [M/Chip 4]	xx 10 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 65 73 74 72 6F - 'Maestro'	
9F 14	Lower Consecutive Offline Limit	00	
9F 17	Personal Identification Number (PIN) Try Counter	03	
9F 1F	Track 1 Discretionary Data	30 38 33 35 35 30 36 30 36 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30	
9F 23	Upper Consecutive Offline Limit	00	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 42	Application Currency Code	08 40 - USD	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	77 7D A1 AC D8 24 4A 23 00 5A 10 55 32 E6 B1 C3 EE BE 07 9F BA 70 DD 6F F5 24 43 88 B1 9D 2A 29 06 FD 55 09 AF 14 5F 43 C7 B1 06 8E D6 23 A2 7F 8F DD 00 40 43 9E 5E 6E 41 CE 45 23 45 C8 7B 98 7B A3 68 C9 27 01 0F DF 54 1A D3 C1 F2 46 36 D1 B4 B2 C2 27 AF 6E 66 2A 66 21 D9 01 55 3C A9 D1 13 F7 41 0C 96 9B 0E 0E EB B3 23 EF FD 5E 69 99	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	78 19 C2 17 C8 65 B1 58 E0 38 64 86 88 2A 02 54 C3 E0 EA D2 9E FB 0E 48 D5 76 3C F1 D1 9F 5B B0 F3 0B 26 6C 2F D9 56 6F 2B FF	
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04	
9F 4A	Static Data Authentication Tag List	82	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06	
9F 6E	Third Party Data [MasterCard]	08 40 00 00 30 30 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
9F 7E	Application Life Cycle Data [MasterCard]	03 10 0C 12 00 09 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 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]	46 58 00	
C5	Card Issuer Action Code - Online [MasterCard]	06 F8 00	
C6	Counters [MasterCard]	00 02 00 00 00 00 00 00 00 00	
C7	CDOL1 Related Data Length [MasterCard]	2B	
C8	CRM Country Code [MasterCard]	08 40 - USA	

Tag	Element name	Data	Card v5.0
C9	CRM Currency Code [M/Chip4]	08 40 - USD	
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	
CD	Card Issuer Action Code - Default [PayPass M/Chip]	00 58 00	
CE	Card Issuer Action Code - Online [PayPass M/Chip]	00 F8 00	
CF	Card Issuer Action Code - Denial [PayPass M/Chip]	00 00 00	
D1	Currency Conversion Table [M/Chip]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 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 12	
D7	Application Control [PayPass M/Chip]	40 00 40	
DF 02	Security Limits Status [MasterCard]	00	

1.9   Test Card 09 – Mastercard US Maestro, Debit, English, USA, USD

A Mastercard US Maestro debit card with Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

1.9.1 Cardholder Verification Method List

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

1.9.2 Application Tag data

* Tag value changes with card usage

Tag	Element name	Data	Card v5.0
42	Issuer Identification Number (IIN)	54 13 33	
50	Application Label	55 53 20 44 45 42 49 54 - 'US DEBIT'	
57	Track 2 Equivalent Data	54 13 33 00 89 09 90 23 D2 51 26 20 06 29 30 42 30 00 0F	
5A	Application Primary Account Number (PAN)	54 13 33 00 89 09 90 23	
5F 20	Cardholder Name	55 41 54 20 41 54 4D 2F 54 65 73 74 20 43 61 72 64 20 30 39 20 20 20 20 20 20 - 'UAT ATM/Test Card 09'	
5F 24	Application Expiration Date	25 12 31	
5F 25	Application Effective Date	xx xx xx	
5F 28	Issuer Country Code	08 40 - USA	
5F 2D	Language Preference	65 6E - 'en' (English)	

Tag	Element name	Data	Card v5.0
5F 30	Service Code	`06 20`	
5F 34	Application PAN Sequence Number	`13`	
5F 55	Issuer Country Code (alpha2 format)	`55 53`	
82	Application Interchange Profile [M/Chip, PayPass]	`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 Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported	
84	Dedicated File (DF) Name	`A0 00 00 00 04 22 03`	
87	Application Priority Indicator	`01`	
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`	
8D	Card Risk Management Data Object List 2 (CDOL2)	`91 0A 8A 02 95 05 9F 37 04 9F 4C 08`	
8E	Cardholder Verification Method (CVM) List	`00 00 00 00 00 00 00 00 02 05 42 03 1F 03`	
8F	Certification Authority Public Key Index	`FA`	
90	Issuer Public Key Certificate	`18 89 B9 97 E6 FC E8 4B 4A E7 AB 87 43 1C BD B3 DF 8C 1D 5A 55 A7 F6 0D 29 59 AF 3A 51 04 E7 58 83 17 ED 74 08 66 68 CF 1A 05 47 84 F7 49 3C 6D 74 7F A7 96 EC 14 D3 33 A6 8E C7 E0 08 62 95 9A 0B D0 F0 48 20 80 B7 1A C1 B7 62 5B 1B 8B 1F 35 A6 69 19 99 BA 78 F5 92 E2 3F 95 E9 96 09 D1 08 CF 1C 0E 30 8A 8B F6 4F BD E8 37 D3 CE 13 8A 50 DC 50 AF 4B 41 EE 53 D9 8A 11 B6 A8 1D DD 44 CC 43 0C 1E F3 BB 9D 1D 75 A0 2F AA 9C 81 4A FC 58`	
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 C0` BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed	
9F 08	Application Version Number	`00 02`	
9F 0D	Issuer Action Code - Default	`B0 50 9C 88 00`	
9F 0E	Issuer Action Code - Denial	`00 00 00 00 00`	

Tag	Element name	Data	Card v5.0
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00	
9F 10	Issuer Application Data [M/Chip 4]	xx 14 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	55 53 20 44 45 42 49 54 - 'US DEBIT'	
9F 14	Lower Consecutive Offline Limit	00	
9F 17	Personal Identification Number (PIN) Try Counter	01	
9F 1F	Track 1 Discretionary Data	30 36 32 39 33 30 34 32 33 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30	
9F 23	Upper Consecutive Offline Limit	00	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 42	Application Currency Code	08 40 - USA	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	54 54 31 B5 50 F4 45 8F 72 A8 BC 6E 6B 8D 8C 22 09 F1 6E 04 C3 F1 C7 31 67 A7 E7 87 AF F4 D3 0E D8 10 93 0B 5D C4 FB 96 76 CF 16 FD 62 87 87 AB 5E D0 69 18 0B 22 2F 61 F2 49 75 25 C6 DB FF C2 01 99 55 C0 F9 F2 1A FF 1D 53 15 E2 11 83 19 59 B0 4C 3F 08 81 35 F8 6D AB 60 C4 29 67 41 EE B6 F8 C0 A7 75 19 EE 10 E4 29 18 77 86 9A 38 A5 82	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	DD 8C B9 F2 D2 A2 38 2E E2 93 E5 69 EB FA E1 08 A3 6C AD A2 69 10 EA C0 AB 21 68 65 3B 0A 45 BA 2A 93 0A 0A F5 77 B8 42 65 A7	
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04	
9F 4A	Static Data Authentication Tag List	82	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06	
9F 6E	Third Party Data [MasterCard]	08 40 00 00 30 30 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
9F 7E	Application Life Cycle Data [MasterCard]	03 10 0C 12 00 09 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 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]	06 50 00	
C5	Card Issuer Action Code - Online [MasterCard]	06 FB 00	
C6	Counters [MasterCard]	00 02 00 00 00 00 00 00 00 00	
C7	CDOL1 Related Data Length [MasterCard]	2B	

Tag	Element name	Data	Card v5.0
C8	CRM Country Code [MasterCard]	`08 40` - USA	
C9	CRM Currency Code [M/Chip4]	`08 40` - USD	
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`	
CD	Card Issuer Action Code - Default [PayPass M/Chip]	`00 58 00`	
CE	Card Issuer Action Code - Online [PayPass M/Chip]	`00 F8 00`	
CF	Card Issuer Action Code - Denial [PayPass M/Chip]	`08 00 00`	

D1	Currency Conversion Table [M/Chip]	`08 40 00 00 00 08 40 00 00 00`
		`08 40 00 00 00 08 40 00 00 00`
		`08 40 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]	`82 00`	
D6	Default ARPC Response Code [M/Chip4]	`00 10`	
D7	Application Control [PayPass M/Chip]	`40 00 40`	
DF 02	Security Limits Status [MasterCard]	`00`	

1.10 Test Card 10 – Mastercard, Dual AID, Debit, English, USA, USD

A Mastercard debit card with two AIDs, Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

1.10.1 Cardholder Verification Method List – AID (A0000000041010)

Cardholder Verification Method List ('4201 1E03 4203 1F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Next CVM
2	Signature (paper)	Terminal supports CVM type	Fail
3	Online PIN	Terminal supports CVM type	Next CVM
4	No CVM required	Terminal supports CVM type	Fail

1.10.2 Application Tag data - AID (A0000000041010)

* Tag value changes with card usage

Tag	Element name	Data	Card v5.2
42	Issuer Identification Number (IIN)	`54 13 33`	
50	Application Label	`44 45 42 49 54 20 4D 41 53 54` `45 52 43 41 52 44` - 'DEBIT MASTERCARD'	
57	Track 2 Equivalent Data	`54 13 33 00 89 09 91 30 D2 21` `22 01 14 83 59 49 00 00 0F`	
5A	Application Primary Account Number (PAN)	`54 13 33 00 89 09 91 30`	

5F 20	Cardholder Name	`55 41 54 20 41 54 4D 2F 54 65`
		`73 74 20 43 61 72 64 20 31 30`
		`20 20 20 20 20 20` - 'UAT ATM/Test Card 10'	

5F 24	Application Expiration Date	`22 12 31`	

Tag	Element name	Data	Card v5.2
5F 25	Application Effective Date	`xx xx xx`	
5F 28	Issuer Country Code	`08 40` - USA	
5F 2D	Language Preference	`65 6E` - 'en' (English)	
5F 30	Service Code	`02 01`	
5F 34	Application PAN Sequence Number	`01`	
5F 55	Issuer Country Code (alpha2 format)	`55 53` - 'US'	
82	Application Interchange Profile	`18 00` BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported	
84	Dedicated File (DF) Name	`A0 00 00 00 04 10 10`	
87	Application Priority Indicator	`01`	
8C	Card Risk Management Data Object List 1 (CDOL1)	`9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14`	
8D	Card Risk Management Data Object List 2 (CDOL2)	`91 0A 8A 02 95 05 9F 37 04 9F 4C 08`	
8E	Cardholder Verification Method (CVM) List	`00 00 00 00 00 00 00 00 42 01 1E 03 42 03 1F 03`	
94	Application File Locator (AFL)	`08 01 01 00 10 01 02 02`	
94	Application File Locator (AFL)	`08 01 01 00 10 01 02 02`	
9F 07	Application Usage Control	`FF C0` BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed	
9F 08	Application Version Number	`00 02`	
9F 0D	Issuer Action Code - Default	`B0 50 9C 88 00`	
9F 0E	Issuer Action Code - Denial	`00 00 00 00 00`	
9F 0F	Issuer Action Code - Online	`B0 70 9C 98 00`	
9F 10	Issuer Application Data [M/Chip Advance]	`xx 10 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	`44 65 62 69 74 20 4D 61 73 74 65 72 43 61 72 64` - 'Debit MasterCard'	
9F 14	Counter 1 Lower Limit [MasterCard]	`00`	
9F 17	Personal Identification Number (PIN) Try Counter	`01`	
9F 23	Counter 1 Upper Limit [MasterCard]	`00`	
9F 26	Application Cryptogram (AC)	`xx xx xx xx xx xx xx xx *`	

Tag	Element name	Data Card v5.2
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14
9F 7E	Application Life Cycle Data [MasterCard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 00 00
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	06 50 00
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	06 FB 00
C6	PIN Try Limit [M/Chip Advance]	01
C7	CDOL1 Related Data Length [MasterCard]	42
C8	CRM Country Code [MasterCard]	08 40 - USA
C9	Accumulator 1 Currency Code [MasterCard]	08 40 - USD
CA	Accumulator 1 Lower Limit [MasterCard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [MasterCard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	06 50 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	06 FB 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00
D1	Accumulator 1 Currency Conversion Table [MasterCard]	08 40 00 01 00 08 40 00 01 00 08 40 00 01 00 08 40 00 01 00 08 40 00 01 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 Advance]	80 00 80 00 C6 00
D6	Default ARPC Response Code [M/Chip Advance]	00 10
D7	Application Control [M/Chip Advance]	80 00 80 00 C6 00
D9	Application File Locator (Contactless)	08 01 01 00 10 01 01 01 10 03 03 01
DE	Log Data Table [M/Chip Advance]	00 00 00 00 00 00 00 00 00
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	C1
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	C1
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00
DF 16	Accumulator 2 Currency Code [MasterCard]	09 99
DF 17	Accumulator 2 Currency Conversion Table [MasterCard]	09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00 09 99 00 00 00
DF 18	Accumulator 2 Lower Limit [MasterCard]	00 00 00 00 00 00
DF 19	Accumulator 2 Upper Limit [MasterCard]	00 00 00 00 00 00

Tag	Element name	Data	Card v5.2
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	C1	
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	C1	
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00	
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00	
DF 1F	Counter 2 Lower Limit [MasterCard]	00	
DF 21	Counter 2 Upper Limit [MasterCard]	00	
DF 22	MTA CVM (Contact) [M/Chip Advance]	00 00 00 00 00 00	
DF 23	MTA CVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00	
DF 24	MTA Currency Code [M/Chip Advance]	09 99	
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	00 00 00 00 00 00	
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	00 00 00 00 00 00	
DF 27	Number Of Days Offline Limit [M/Chip Advance]	00 00	
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00	
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00	
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00	
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00	
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00	
DF 2D	Counter 1 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00	
DF 2E	Counter 2 CVR Dependency Data (Contact) [M/Chip Advance]	00 00 00	
DF 2F	Counter 2 CVR Dependency Data (Contactless) [M/Chip Advance]	00 00 00	
DF 30	Interface Enabling Switch [M/Chip Advance]	01	
DF 35	Security Limits Status (Contactless) [M/Chip Advance]	00	
DF 37	Security Limits Status Common [M/Chip Advance]	00	
DF 3C	CVR Issuer Discretionary Data (Contact) [M/Chip Advance]	00	
DF 3D	CVR Issuer Discretionary Data (Contactless) [M/Chip Advance]	00	
DF 3F	Read Record Filter (Contact) [M/Chip Advance]	00	
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	00	
DF 41	DS Management Control [M/Chip Advance]	20	

1.10.3 Cardholder Verification Method List – AID (A0000000042203)

Cardholder Verification Method List ('0205 4203 1F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Purchase with Cashback	Fail
2	Online PIN	Terminal supports CVM type	Next CVM

| 3 | No CVM required | Terminal supports CVM type | Fail |

1.10.4 Application Tag data - AID (A0000000042203)

<div align="right">* Tag value changes with card usage</div>

Tag	Element name	Data Card v5.1
42	Issuer Identification Number (IIN)	`54 13 33`
50	Application Label	`55 53 20 44 45 42 49 54` - 'US DEBIT'
57	Track 2 Equivalent Data	`54 13 33 00 89 09 91 30 D2 21 22 01 14 83 59 49 00 00 0F`
5A	Application Primary Account Number (PAN)	`54 13 33 00 89 09 91 30`
5F 20	Cardholder Name	`55 41 54 20 41 54 4D 2F 54 65 73 74 20 43 61 72 64 20 31 30 20 20 20 20 20 20` - 'UAT ATM/Test Card 10'
5F 24	Application Expiration Date	`22 12 31`
5F 25	Application Effective Date	`xx xx xx`
5F 28	Issuer Country Code	`08 40` - USA
5F 2D	Language Preference	`65 6E` - 'en' (English)
5F 30	Service Code	`02 01`
5F 34	Application PAN Sequence Number	`01`
5F 55	Issuer Country Code (alpha2 format)	`55 53` - 'US'
82	Application Interchange Profile	`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 Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV mode NOT supported
84	Dedicated File (DF) Name	`A0 00 00 00 04 22 03`
87	Application Priority Indicator	`02`
8C	Card Risk Management Data Object List 1 (CDOL1)	`9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03 9F 21 03 9F 7C 14`
8D	Card Risk Management Data Object List 2 (CDOL2)	`91 0A 8A 02 95 05 9F 37 04 9F 4C 08`
8E	Cardholder Verification Method (CVM) List	`00 00 00 00 00 00 00 00 02 05 42 03 1F 03`
94	Application File Locator (AFL)	`08 01 01 00 10 01 01 01 10 03 03 01`
94	Application File Locator (AFL)	`08 01 01 00 10 01 01 01 10 03 03 01`

Tag	Element name	Data Card v5.1
9F 07	Application Usage Control	FF C0 BYTE 1: b8 - Domestic cash trans. valid b7 - Int'l cash transactions valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services valid b2 - ATMs valid b1 - non-ATM terminals valid BYTE 2: b8 - Domestic cashback allowed b7 - International cashback allowed
9F 08	Application Version Number	00 02
9F 0D	Issuer Action Code - Default	B0 50 9C 88 00
9F 0E	Issuer Action Code - Denial	00 00 00 00 00
9F 0F	Issuer Action Code - Online	B0 70 9C 98 00
9F 10	Issuer Application Data [M/Chip Advance]	xx 01 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	55 53 20 44 65 62 69 74 - 'US Debit'
9F 14	Counter 1 Lower Limit [MasterCard]	00
9F 17	Personal Identification Number (PIN) Try Counter	01
9F 23	Counter 1 Upper Limit [MasterCard]	00
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 42	Application Currency Code	08 40 - USD
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06 DF 3E 01 9F 21 03 9F 7C 14
9F 7E	Application Life Cycle Data [MasterCard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 10 10 00 00 00 00 00 00 00 00 00 00 80 00 88 01 06 A5 5A 00 00 00 00 00 00 00 00 00 00 00 00
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 00 00
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	06 50 00
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	06 FB 00
C6	PIN Try Limit [M/Chip Advance]	01
C7	CDOL1 Related Data Length [MasterCard]	42
C8	CRM Country Code [MasterCard]	08 40 - USA
C9	Accumulator 1 Currency Code [MasterCard]	08 40 - USD
CA	Accumulator 1 Lower Limit [MasterCard]	00 00 00 00 00 00
CB	Accumulator 1 Upper Limit [MasterCard]	00 00 00 00 00 00
CD	Card Issuer Action Code (Contactless) - Default [M/Chip Advance]	06 50 00
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	06 FB 00
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00

Tag	Element name	Data Card v5.1

D1	Accumulator 1 Currency Conversion Table [MasterCard]	`08 40 00 01 00 08 40 00 01 00`
		`08 40 00 01 00 08 40 00 01 00`
		`08 40 00 01 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 Advance]	`80 00 80 00 C6 00`
D6	Default ARPC Response Code [M/Chip Advance]	`00 10`
D7	Application Control [M/Chip Advance]	`80 00 80 00 C6 00`
D9	Application File Locator (Contactless)	`08 01 01 00 10 01 01 01 10 03` `03 01`
DE	Log Data Table [M/Chip Advance]	`00 00 00 00 00 00 00 00 00`
DF 02	Security Limits Status (Contact) [M/Chip Advance]	`00`
DF 11	Accumulator 1 Control (Contact) [M/Chip Advance]	`C1`
DF 12	Accumulator 1 Control (Contactless) [M/Chip Advance]	`C1`
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	`00`
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	`00`
DF 16	Accumulator 2 Currency Code [MasterCard]	`09 99`

DF 17	Accumulator 2 Currency Conversion Table [MasterCard]	`09 99 00 00 00 09 99 00 00 00`
		`09 99 00 00 00 09 99 00 00 00`
		`09 99 00 00 00`

DF 18	Accumulator 2 Lower Limit [MasterCard]	`00 00 00 00 00 00`
DF 19	Accumulator 2 Upper Limit [MasterCard]	`00 00 00 00 00 00`
DF 1A	Counter 1 Control (Contact) [M/Chip Advance]	`C1`
DF 1B	Counter 1 Control (Contactless) [M/Chip Advance]	`C1`
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	`00`
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	`00`
DF 1F	Counter 2 Lower Limit [MasterCard]	`00`
DF 21	Counter 2 Upper Limit [MasterCard]	`00`
DF 22	MTA CVM (Contact) [M/Chip Advance]	`00 00 00 00 00 00`
DF 23	MTA CVM (Contactless) [M/Chip Advance]	`00 00 00 00 00 00`
DF 24	MTA Currency Code [M/Chip Advance]	`09 99`
DF 25	MTA NoCVM (Contact) [M/Chip Advance]	`00 00 00 00 00 00`
DF 26	MTA NoCVM (Contactless) [M/Chip Advance]	`00 00 00 00 00 00`
DF 27	Number Of Days Offline Limit [M/Chip Advance]	`00 00`
DF 28	Accumulator 1 CVR Dependency Data (Contact) [M/Chip Advance]	`00 00 00`
DF 29	Accumulator 1 CVR Dependency Data (Contactless) [M/Chip Advance]	`00 00 00`
DF 2A	Accumulator 2 CVR Dependency Data (Contact) [M/Chip Advance]	`00 00 00`
DF 2B	Accumulator 2 CVR Dependency Data (Contactless) [M/Chip Advance]	`00 00 00`
DF 2C	Counter 1 CVR Dependency Data (Contact) [M/Chip Advance]	`00 00 00`

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

1.11   Test Card 11 – Mastercard, Credit, English, USA, USD

A Mastercard credit card with Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

1.11.1 Cardholder Verification Method List

Cardholder Verification Method List ('4201 4403 4103 5E03 1F03')			
CVM	**Verification Method**	**Conditions**	**If unsuccessful**
1	Online PIN	Unattended Cash	Next CVM
2	Offline PIN	Terminal supports CVM type	Next CVM
3	Offline Plaintext PIN	Terminal supports CVM type	Next CVM
4	Signature (paper)	Terminal supports CVM type	Next CVM
5	No CVM required	Terminal supports CVM type	Fail

1.11.2 Application Tag data

* Tag value changes with card usage

Tag	Element name	Data	Card v5.0
50	Application Label	4D 41 53 54 45 52 43 41 52 44 - 'MASTERCARD'	
57	Track 2 Equivalent Data	54 13 33 00 89 60 41 11 D2 21 22 01 01 23 40 91 72 00 0F	
5A	Application Primary Account Number (PAN)	54 13 33 00 89 60 41 11	
5F 20	Cardholder Name	55 41 54 20 41 54 4D 2F 54 65 73 74 20 43 61 72 64 20 31 31 20 20 20 20 20 20 - 'UAT ATM/Test Card 11'	
5F 24	Application Expiration Date	22 12 31	
5F 25	Application Effective Date	xx xx xx	
5F 28	Issuer Country Code	08 40 - USA	

Tag	Element name	Data	Card v5.0
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 [M/Chip, PayPass]	`39 00` BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported using External Auth command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC supported BYTE 2: b8 - EMV mode NOT supported	
84	Dedicated File (DF) Name	`A0 00 00 00 04 10 10`	
87	Application Priority Indicator	`01`	
8C	Card Risk Management Data Object List 1 (CDOL1)	`9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03`	
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 42 01 44 03 41 03 5E 03 1F 03`	
8F	Certification Authority Public Key Index	`FA`	
90	Issuer Public Key Certificate	`18 89 B9 97 E6 FC E8 4B 4A E7 AB 87 43 1C BD B3 DF 8C 1D 5A 55 A7 F6 0D 29 59 AF 3A 51 04 E7 58 83 17 ED 74 08 66 68 CF 1A 05 47 84 F7 49 3C 6D 74 7F A7 96 EC 14 D3 33 A6 8E C7 E0 08 62 95 9A 0B D0 F0 48 20 80 B7 1A C1 B7 62 5B 1B 8B 1F 35 A6 69 19 99 BA 78 F5 92 E2 3F 95 E9 96 09 D1 08 CF 1C 0E 30 8A 8B F6 4F BD E8 37 D3 CE 13 8A 50 DC 50 AF 4B 41 EE 53 D9 8A 11 B6 A8 1D DD 44 CC 43 0C 1E F3 BB 9D 1D 75 A0 2F AA 9C 81 4A FC 58`	
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` 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	`BC 50 BC 80 00`	
9F 0E	Issuer Action Code - Denial	`00 00 00 00 00`	
9F 0F	Issuer Action Code - Online	`BC 70 BC 98 00`	

Tag	Element name	Data	Card v5.0
9F 10	Issuer Application Data [M/Chip 4]	xx 10 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	03	
9F 17	Personal Identification Number (PIN) Try Counter	09	
9F 1F	Track 1 Discretionary Data	30 31 32 33 34 30 39 31 37 32 30 30 30 30 30 30 30 30 30 30 30 30 30 30	
9F 23	Upper Consecutive Offline Limit	07	
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	08 40 - USA	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	86 1F 85 B3 11 B5 F1 F3 FC EB F7 6F 27 35 C4 EA 7D D7 A3 EA 48 DD 98 EE F6 1D DB 56 25 6C 5A AA A3 07 66 3C E6 F2 B1 08 7F F0 08 EA 78 EA FD 9E C6 19 C4 F2 A7 FD 6F 21 87 39 9A 8C AF 3C 15 76 71 AC 65 7D CA 2A BD 41 69 10 15 8E 29 0B 10 2E 4D 07 1B CF 35 14 4A 3C 5A 0E CB D6 8B 03 F3 62 C8 65 E2 0F 44 22 6C 22 91 9F 0E B0 1E CA 60 ED	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	E0 E9 28 C4 B9 9E F3 ED 38 EE 01 0A D7 0C 4C 8C 53 C9 6C DE 13 75 33 7B A3 EC 4B A9 3E BD 85 00 2E 88 6E B7 24 6E CB 84 BF 59	
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	9C 56 49 BA 75 83 62 74 58 49 50 6C 66 2A A7 0D A7 6F DC 6A 49 0F 9A BB DD 48 5C 42 AD BF A3 14 C7 FA BC B0 C9 6D C5 6E 50 DD 50 48 88 48 78 88 88 AB 18 EB B3 A0 BB E2 4B 9D 20 93 2D 05 87 87 55 9C A3 EA 11 A7 E4 F4 11 F0 11 2B 44 98 55 8F 05 D7 9D 25 8C 4B 10 A5 5F 74 69 D2 C6 F1 EB D5 7A BB 48 F8 29 D7 EA 9A D8 87 4B 34 97 75 78 85	
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]	08 40 00 00 30 30 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
9F 7E	Application Life Cycle Data [MasterCard]	03 10 0C 12 00 09 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 04 00 00 02 60 00 00 38 4A 02 11 50 35 43 44 30 37 32 20	

Tag	Element name	Data	Card v5.0
C3	Card Issuer Action Code - Decline [MasterCard]	00 00 00	
C4	Card Issuer Action Code - Default [MasterCard]	19 50 00	
C5	Card Issuer Action Code - Online [MasterCard]	39 FB 00	
C6	Counters [MasterCard]	00 02 00 00 00 00 00 00 00 00	
C7	CDOL1 Related Data Length [MasterCard]	2B	
C8	CRM Country Code [MasterCard]	08 40 - USA	
C9	CRM Currency Code [M/Chip4]	08 40 - USD	
CA	Lower Cumulative Offline Transaction Amount [M/Chip]	00 00 00 02 00 00	
CB	Upper Cumulative Offline Transaction Amount [M/Chip]	00 00 00 04 00 00	
CD	Card Issuer Action Code - Default [PayPass M/Chip]	00 58 00	
CE	Card Issuer Action Code - Online [PayPass M/Chip]	00 F8 00	
CF	Card Issuer Action Code - Denial [PayPass M/Chip]	00 00 00	
D1	Currency Conversion Table [M/Chip]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 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 FF	
D5	Application Control [M/Chip]	CC 00	
D6	Default ARPC Response Code [M/Chip4]	00 12	
D7	Application Control [PayPass M/Chip]	40 01 40	
DF 02	Security Limits Status [MasterCard]	00	

1.12 Test Card 12 – Mastercard, Technical Fallback Card

This card has a chip image printed on the card but it does not contain an actual chip.

When inserted, a chip error will be detected.

This should trigger Technical Fallback processing and the transaction should continue as a magstripe Technical Fallback transaction.

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

1.13 Test Card 13 – American Express, Credit, English, USA, USD

An American Express credit card with Issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is $68.00.

1.13.1 Cardholder Verification Method List

Cardholder Verification Method List ('4201 4203 5E03 5F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Next CVM
2	Online PIN	Terminal supports CVM type	Next CVM
3	Signature (paper)	Terminal supports CVM type	Next CVM
4	No CVM required	Terminal supports CVM type	Next CVM

1.13.2 Application Tag data

* Tag value changes with card usage

Tag	Element name	Data Card v6.0
50	Application Label	41 4D 45 52 49 43 41 4E 20 45 58 50 52 45 53 53 - 'AMERICAN EXPRESS'
57	Track 2 Equivalent Data	37 42 45 00 17 51 00 6D 24 12 20 10 11 02 12 34 50 00 0F
5A	Application Primary Account Number (PAN)	37 42 45 00 17 51 00 6F
5F 20	Cardholder Name	55 41 54 20 41 54 4D 2F 54 65 73 74 20 43 61 72 64 20 31 33 20 20 20 20 20 20 - 'UAT ATM/Test Card 13'
5F 24	Application Expiration Date	24 12 31
5F 25	Application Effective Date	xx xx xx
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	00
82	Application Interchange Profile	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 b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 00 25 01 04 02
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 42 01 42 03 5E 03 5F 03
94	Application File Locator (AFL)	08 01 01 00 08 02 03 01

Tag	Element name	Data	Card v6.0
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 01`	
9F 0D	Issuer Action Code - Default	`BC 50 EC A8 00`	
9F 0E	Issuer Action Code - Denial	`00 00 00 00 00`	
9F 0F	Issuer Action Code - Online	`BC 78 FC F8 00`	
9F 10	Issuer Application Data [American Express]	`xx xx 01 xx xx xx xx *`	
9F 11	Issuer Code Table Index	`01`	
9F 12	Application Preferred Name	`41 6D 65 72 69 63 61 6E 20 45 78 70 72 65 73 73` - 'American Express'	
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)	`00 05`	
9F 38	Processing Options Data Object List (PDOL)	`9F 35 01`	
9F 42	Application Currency Code	`08 40`	

1.14 Test Card 14 – American Express, Technical Fallback Card

This card has a chip image printed on the card but it does not contain an actual chip.

When inserted, a chip error will be detected.

This should trigger Technical Fallback processing and the transaction should continue as a magstripe Technical Fallback transaction.

The recommended transaction amount to generate a host approval is $36.00.

1.15 Test Card 15 – Discover, Credit, English, USA, USD

A Discover credit card with Issuer Country Code of 'USA' and Currency Code of 'USD'.

The recommended transaction amount to generate a host approval is $160.00.

1.15.1 Cardholder Verification Method List

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

1.15.2 Application Tag data

* Tag value changes with card usage

Tag	Element name	Data Card v6.0
50	Application Label	44 49 53 43 4F 56 45 52 - 'DISCOVER'
57	Track 2 Data [Discover]	65 10 00 00 00 00 02 16 D2 31 22 01 10 00 07 49 00 00 0F
5A	Application Primary Account Number (PAN)	65 10 00 00 00 00 02 16
5F 20	Cardholder Name	55 41 54 20 41 54 4D 2F 54 65 73 74 20 43 61 72 64 20 31 35 20 20 20 20 20 20 - 'UAT ATM/Test Card 15'
5F 24	Application Expiration Date	23 12 31
5F 25	Application Effective Date	XX XX XX
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 01 52 30 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 34 03
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 42 01 5E 03 1F 03
94	Application File Locator (AFL)	08 01 01 00 18 01 02 01
94	Application File Locator (AFL)	08 01 01 00 18 01 02 01

Tag	Element name	Data Card v6.0
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 01
9F 0D	Issuer Action Code - Default	30 40 C4 28 00
9F 0E	Issuer Action Code - Denial	00 10 00 00 40
9F 0F	Issuer Action Code - Online	30 68 C4 F8 00
9F 10	Issuer Application Data [DPAS]	xx 06 xx xx xx xx xx xx *
9F 11	Issuer Code Table Index	01
9F 12	Application Preferred Name	43 72 65 64 69 74 - 'Credit'
9F 17	Personal Identification Number (PIN) Try Counter	03
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *
9F 27	Cryptogram Information Data (CID)	80
9F 36	Application Transaction Counter (ATC)	xx xx *
9F 4D	Transaction Log Entry	0B 0A
9F 4F	Transaction Log Format	9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 34 03 9F 52 06 9F 1A 02 95 05 9C 01 8A 02 9F 37 04 9F 03 06 9F 53 08 9F 66 04 9F 71 02 9F 6C 02
C1	Application Configuration Options [DPAS]	15 60
C2	Issuer Life Cycle Data (ILCD) [DPAS]	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
C3	Currency Conversion Codes 1 [DPAS]	08 40 00 00 02
C4	Currency Conversion Codes 2 [DPAS]	08 40 00 00 02
C5	Card Action Code - Denial [DPAS]	01 00
C6	Card Action Code - Default [DPAS]	22 0B
C7	Card Action Code - Online [DPAS]	F6 1F
D0	Issuer Application Data ObjectList (IADOL) [DPAS]	
D2	CRM Country Code [DPAS]	08 40 - USA
D3	CRM Currency Code [DPAS]	08 40 - USD
DF 20	Transaction Profile Objects(TPO0) [DPAS]	00 18 00 08 01 01 00 18 01 02 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 01 00 F6 1F 22 0B 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

1.16   Test Card 16 – Discover, Technical Fallback Card

This card has a chip image printed on the card but it does not contain an actual chip.

When inserted, a chip error will be detected.

This should trigger Technical Fallback processing and the transaction should continue as a magstripe Technical transaction.

The recommended transaction amount to generate a host approval is $26.00.

1.17   Test Card 17 – DNA, Debit, English, USA, USD

A Debit Network Alliance debit card with Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

1.17.1 Cardholder Verification Method List

Cardholder Verification Method List ('0201 0205 0204 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Fail
2	Online PIN	Purchase with Cashback	Fail
3	Online PIN	Manual Cash	Fail
4	No CVM required	Always	Fail

1.17.2 Application Tag data

* Tag value changes with card usage

Tag	Element name	Data Card v6.0
50	Application Label	44 4E 41 - 'DNA'
57	Track 2 Data [Discover]	40 00 00 00 00 00 00 02 D2 51 22 01 10 00 07 49 00 00 0F
5A	Application Primary Account Number (PAN)	40 00 00 00 00 00 00 02
5F 20	Cardholder Name	55 41 54 20 55 53 41 2F 54 45 53 54 20 43 41 52 44 20 31 38 20 20 20 20 20 20 - 'UAT ATM/Test Card 17'
5F 24	Application Expiration Date	25 12 31
5F 25	Application Effective Date	xx xx xx
5F 28	Issuer Country Code	08 40 - USA
5F 2D	Language Preference	65 6E - 'en' (English)
5F 30	Service Code	02 01
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile	18 00 BYTE 1: b7 - Offline SDA NOT supported b6 - Offline DDA NOT supported b5 - Cardholder verification supported b4 - Terminal risk mgmt to be performed b3 - Issuer authentication NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported

84	Dedicated File (DF) Name	`A0 00 00 06 20 06 20`
87	Application Priority Indicator	`01`

8C	Card Risk Management Data Object List 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 34 03`

8D	Card Risk Management Data Object List 2 (CDOL2)	`91 0A 8A 02 95 05 9F 37 04`
8E	Cardholder Verification Method (CVM) List	`00 00 00 00 00 00 00 00 02 01` `02 05 02 04 1F 00`
94	Application File Locator (AFL)	`08 01 01 00 18 01 02 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 01`
9F 0D	Issuer Action Code - Default	`F0 40 E4 28 00`
9F 0E	Issuer Action Code - Denial	`00 10 00 00 40`
9F 0F	Issuer Action Code - Online	`F0 68 FC F8 00`
9F 10	Issuer Application Data [DPAS]	`xx 06 xx xx xx xx xx xx *`
9F 11	Issuer Code Table Index	`01`
9F 12	Application Preferred Name	`44 65 62 69 74` - 'Debit'
9F 17	Personal Identification Number (PIN) Try Counter	`03`
9F 26	Application Cryptogram (AC)	`xx xx xx xx xx xx xx xx *`
9F 27	Cryptogram Information Data (CID)	`80`
9F 36	Application Transaction Counter (ATC)	`xx xx *`
9F 4D	Transaction Log Entry	`0B 0A`

9F 4F	Transaction Log Format	`9F 02 06 5F 2A 02 9A 03 9F 36`
		`02 9F 34 03 9F 52 06 9F 1A 02`
		`95 05 9C 01 8A 02 9F 37 04 9F`
		`03 06 9F 53 08 9F 66 04 9F 71`
		`02 9F 6C 02`

C1	Application Configuration Options [DPAS]	`15 60`

C2	Issuer Life Cycle Data (ILCD) [DPAS]	`00 00 00 00 00 00 00 00 00 00`
		`00 00 00 00 00 00 00 00 00 00`
		`00 00 00 00 00 00 00 00 00 00`
		`00 00 00 00 00 00 00 00 00 00`
		`00 00 00 00 00 00 00`

C3	Currency Conversion Codes 1 [DPAS]	`08 40 00 00 02`
C4	Currency Conversion Codes 2 [DPAS]	`08 40 00 00 02`
D0	Issuer Application Data ObjectList (IADOL) [DPAS]	
D2	CRM Country Code [DPAS]	`08 40` - USA
D3	CRM Currency Code [DPAS]	`08 40` - USD

DF 20	Transaction Profile Objects(TPO0) [DPAS]	`00 18 00 08 01 01 00 18 01 02`
		`01 00 00 00 00 00 00 00 00 00`
		`00 00 00 00 00 00 00 00 00 00`
		`00 00 00 00 00 01 00 F6 1F 22`
		`0B 00 00 00 00 00 00 00 00 00`
		`00 00 00 00 00 00 00 00 00 00`
		`00 00`

1.18 Test Card 18 – Interac, Debit, English, CAN, CAD

An Interac Canadian debit card with Issuer Country Code of 'Canada' and Currency Code of 'CAD'.

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

1.18.1 Cardholder Verification Method List

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

1.18.2 Application Tag data

* Tag value changes with card usage

Tag	Element name	Data Card v5.0
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 41 54 20 41 54 4D 2F 54 65 73 74 20 43 61 72 64 20 31 38 20 20 20 20 20 20` - 'UAT ATM/Test Card 18'
5F 24	Application Expiration Date	`22 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 [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 b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	`A0 00 00 02 77 10 10`
87	Application Priority Indicator	`01`
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`
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`

Tag	Element name	Data Card v5.0
		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	3B 9C 99 3B 62 F4 F0 10 A6 10 9B 95 68 9C A8 4E 43 F4 66 C5 33 8B 22 49 14 2B C5 7C 56 55 5D 76 9B 19 AD FB 0A 8F F1 CF 81 17 A9 C5 A8 E2 59 E1 28 44 44 49 0F 15 66 5F 62 F9 91 AC 1C EC 57 38 E7 51 5C DB 26 40 D7 0D 5E BE 6B 22 A9 1B E0 05 E2 76 95 C0 99 B8 6F E1 14 08 CB 66 F7 0E DE 5E 7C 10 1B F5 50 C5 D0 2E 4E 86 6A 00 EC 2E 85 76 BD DD 39 E5 FA 24 03 E8 A8 89 C0 5C D8 30 01 12 59 46 11 AD 84 FB 1C 29 42 4E EE C2 95 AB B9 61
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 trans. valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs NOT valid b1 - non-ATM terminals 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 30 31 30 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	Card v5.0

9F 46	ICC Public Key Certificate	`9F 81 F3 E3 91 21 41 E7 CA 18`
		`6B 29 B6 5E 5C 9F DE B8 DB 12`
		`DA 06 CF D5 8A 9A 15 78 7B 58`
		`D8 0E F9 E8 B7 0B A4 77 42 56`
		`D7 54 4B 4D 52 7D 60 3A C0 EF`
		`E2 AD 77 1C CF 0D CB F2 54 2D`
		`11 45 D5 57 48 D6 12 86 FF 3B`
		`7A 9C 6D 7B 02 49 11 18 0C 83`
		`C2 22 A8 85 14 80 8D 03 27 80`
		`4F 9A 19 19 35 8D BF B9 BE C1`
		`FC BA E6 8B E6 55 86 24 1A 4B`
		`48 80 23 E1 3C BF 55 94 C1 2D`
		`3F B9 F1 49 9B 81 2F 02 69 58`
		`B9 B5 30 40 EE 06 84 34 6E 88`
		`8C F1 DA 7D`	

9F 47	ICC Public Key Exponent	`03`	

9F 48	ICC Public Key Remainder	`27 0F 44 DB 86 49 6F B0 40 B4`
		`2F 65 4E D2 A8 0F 9F C2 AE 71`
		`2E 3A B2 2F C8 79`	

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 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 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	`00 00 00 00 00 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`	

1.19   Test Card 19 – Interac, Debit, French, CAN, CAD

An Interac Canadian debit card with Issuer Country Code of 'Canada' and Currency Code of 'CAD'.

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

1.19.1 Cardholder Verification Method List

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

1.19.2 Application Tag data

* Tag value changes with card usage

Tag	Element name	Data	Card v5.0
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 2F`	

Tag	Element name	Data Card v5.0
5A	Application Primary Account Number (PAN)	45 06 44 50 06 93 19 33
5F 20	Cardholder Name	55 41 54 20 41 54 4D 2F 54 65 73 74 20 43 61 72 64 20 31 39 20 20 20 20 20 20 - 'UAT ATM/Test Card 19'
5F 24	Application Expiration Date	22 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 [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 b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported
84	Dedicated File (DF) Name	A0 00 00 02 77 10 10
87	Application Priority Indicator	01
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
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	3B 9C 99 3B 62 F4 F0 10 A6 10 9B 95 68 9C A8 4E 43 F4 66 C5 33 8B 22 49 14 2B C5 7C 56 55 5D 76 9B 19 AD FB 0A 8F F1 CF 81 17 A9 C5 A8 E2 59 E1 28 44 44 49 0F 15 66 5F 62 F9 91 AC 1C EC 57 38 E7 51 5C DB 26 40 D7 0D 5E BE 6B 22 A9 1B E0 05 E2 76 95 C0 99 B8 6F E1 14 08 CB 66 F7 0E DE 5E 7C 10 1B F5 50 C5 D0 2E 4E 86 6A 00 EC 2E

Tag	Element name	Data	Card v5.0
		85 76 BD DD 39 E5 FA 24 03 E8 A8 89 C0 5C D8 30 01 12 59 46 11 AD 84 FB 1C 29 42 4E EE C2 95 AB B9 61	
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 trans. valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs NOT valid b1 - non-ATM terminals 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 30 32 30 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	
9F 46	ICC Public Key Certificate	5F 0C 41 1B 0D 46 EA 8E 1D B3 6A E6 7E 4D 1F AF AA D3 98 69 22 77 E3 66 04 67 4D F1 B2 10 0F F3 40 57 6B D2 C8 28 80 28 79 34 42 73 1C B0 38 FB 90 FB F3 FC 31 97 8D CC 87 E9 AB C2 53 B9 64 A4 3C 29 BB 28 6A E1 34 37 15 6A CE F9 A3 23 1A 16 44 35 38 D6 69 23 A5 92 03 04 19 A6 4D 70 75 12 DB F3 8F 58 7D EB 3E E1 AF 29 3C 3B 46 65 6E B5 4C FB 6B 7D 92 5B F5 FF 25 A7 2B 22 68 B7 0B 47 16 9A 05 1F 55 AC FD 81 47 B6 CC D8 F7 2B 01 84	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	FB C4 EE C0 CF 37 34 A1 0E F3 2D F1 D5 71 0B BA 1C 6B 3A 0E DF 55 E2 9E 1B 4B	
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04	
9F 4A	Static Data Authentication Tag List	82	

Tag	Element name	Data	Card v5.0
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 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 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	`00 00 00 00 00 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`	

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				