

J.P.Morgan

**J.P. Morgan
DCC USA
EMV™ Test Card Set**

Version 1.00

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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 - J.P. Morgan DCC USA EMV Test Card Set Profiles

The J.P. Morgan DCC (Dynamic Currency Conversion) USA EMV Test Card Set contains 6 cards featuring multiple Issuer Country and Currency codes and is intended for extended Dynamic Currency Conversion testing.

	Card 01 – CAD	Card 02 – WON	Card 03 – JPY
Brand	Visa	Mastercard	Mastercard
Type	Credit	Credit	Credit
AID	N/A	A0000000041010	N/A
PAN	4032 7674 3054 0003	5100 2091 9274 0004	5120 7954 5408 0000
Expiry Date	05/2028	05/2028	05/2028
Service Code	101	201	101
Interface	MSR	Contact, MSR	MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	\$10.00	\$20.00	\$20.00
Issuer Country Code	N/A	250 (FRA) France	N/A
Application Currency Code	N/A	978	N/A
Currency Desc.	Intended use: CAD	Euro (EUR)	Intended use: JPY
Language	N/A	'en' – English	N/A
Card Version	v1.0	v1.0	v1.0

	Card 04 – KRW	Card 05 - CLP	Card 06 – GBP
Brand	Visa	Mastercard	Mastercard
Type	Credit	Credit, Debit	Credit
AID	A0000000031010 A0000000033010	A0000000041010 A0000000043060	A0000000041010
PAN	4912 1800 0000 0009	5281 8000 0000 0002	5101 0800 0000 0009
Expiry Date	12/2025	12/2025	05/2028
Service Code	201	201	201
Interface	Contact, Contactless, MSR	Contact, MSR	Contact, Contactless, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	\$10.00	\$20.00	\$20.00
Issuer Country Code	410 S. Korea (KOR)	152 Chile (CHL)	826 Great Britain (GBR)
Application Currency Code	410	152	826
Currency Desc.	S. Korea (KRW)	Chilean Peso (CLP)	British Pound (GBP)
Language	'en' – English	'en' – English	'en' – English
Card Version	v1.0	v1.0	v1.0

1.1 Test Card 01 – Visa, Magstripe-Only, CAD

A Visa credit card intended to be used to test for dynamic conversion: 'Canadian Dollar'.

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

1.2 Test Card 02 – Mastercard, Contact-Only, France, EUR

A Mastercard credit card with Issuer Country Code of 'France' and Currency Code of 'Euro'.

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

1.2.1 CVM List – AID A0000000041010, Mastercard (EMV)

Cardholder Verification Method List ('4201 4203 5E03 1F003')			
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	Fail

1.2.2 Application Tag data (Contact)

Tag	Element name	Data	v1.x
50	Application Label	4D 41 53 54 45 52 43 41 52 44 - 'MASTERCARD'	
57	Track 2 Equivalent Data	51 00 20 91 92 74 00 04 D2 80 52 01 37 99 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	51 00 20 91 92 74 00 04	
5F 20	Cardholder Name	4A 50 4D 20 44 43 43 2F 54 45 53 54 20 43 41 52 44 20 30 32 20 20 20 20 20 20 - 'JPM DCC/TEST CARD 02'	
5F 24	Application Expiration Date	28 05 31	
5F 25	Application Effective Date	xx xx xx *	
5F 28	Issuer Country Code	02 50 - FRA	
5F 2D	Language Preference	66 72 65 6E	
5F 30	Service Code	02 01	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile [M/Chip, PayPass]	18 00 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 via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset	
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10	
87	Application Priority Indicator	01	

Tag	Element name	Data	v1.x
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 42 03 5E 03 1F 03	
8F	Certification Authority Public Key Index	EF	
90	Issuer Public Key Certificate	5B 2E 1F EF 4D 7D 2C 16 16 12 21 F7 97 2F E6 99 B7 82 44 E0 73 C8 AC 75 86 CE D1 76 EF 7B 93 AC 19 0B 05 70 40 E1 18 4F 2F 55 AC 70 D2 AA C3 94 BE 22 6A 26 50 D3 CA ED 90 60 88 C5 3A 88 B8 3C 46 1F 37 6D 89 10 B8 51 81 54 F3 08 EE ED 23 BC 15 7C FA BA 6E 51 26 9F 01 6D 59 FE 21 A6 F9 10 F2 85 13 0D EA F6 A4 78 BE 77 9D 2B AD 08 E1 2E D6 A5 93 71 5A 18 72 15 C5 63 28 1C B2 B7 2E 5B 14 05 5D 2D D8 30 4A C2 20 2E 53 96 D0 4C 5C 79 55 0B 4D E9 FA DA CB 35 F3 19 06 C5 A4 42 27 29 D6 A5 A8 F5 E1 4C B9 0D B7 05 49 4B 3D B1 0D E6 19 F3 B0 3E 64 96 FE 79 F4 6E 64 97 2A 46 34 A0 35 EF 7E 50 20 49 40 36 03 E0 BC FC 33 C3 87 BB 6D 72 CF F8 33 89 7E 81 F5 02 3F F4 D6 A9 CC 0C 89 E8 78 3F 07 B7 F0 55 3E 9D D3 59 B6 5B 62 3A F1 CE 27 8D 65 3C 37 07	
92	Issuer Public Key Remainder	14 3E 90 B8 B5 E6 2B E5 A9 0D 5A 4E F1 5C 77 40 4D 29 94 48 98 77 85 D7 E8 80 C2 CD	
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	
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 63 61 72 64 - 'Mastercard'	
9F 14	Lower Consecutive Offline Limit	00	

Tag	Element name	Data	v1.x
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	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	09 78 - EUR	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	22 24 A0 93 B1 FE 4B D6 FA BA 5D B3 63 F5 4D DF E9 2D B5 EA BD 83 D3 63 17 1F D1 A1 E0 5B E6 2C DA FD D5 AF FC 56 36 FC 6F B8 05 B8 3E D5 86 09 62 FE 01 83 6B 96 D4 83 41 73 FD 5B 35 0D B0 2B AA 4F C1 84 B6 E5 50 0E D6 C7 5D 73 48 55 C5 8A 23 75 81 24 98 86 92 2A 06 79 08 56 CE 28 53 8A 75 A3 BB 48 FE 51 1D 0F E5 D5 53 C3 00 38 07 11 2C D6 47 F0 55 5C 73 16 E8 37 4C C6 10 81 48 4A 8E 1A D2 C2 F0 42 B3 1E DD C8 89 CD C9 2B 5A 17 B2 94 B6 6C 5E 8A 08 F0 F3 3D FE 36 A8 33 4E 32 CA 8D D6 E6 6F C0 69 5F 12 D5 6A FE D9 4A 0D E8 10 B6 82 59 79 9E 44 B6 8A 86 B7 94 ED 39 B4 7F F3 44 44 B7 11 1D 82 58 5A 91 DB 3F 34 97 13 21 FB 5E B9 10 FE E9 3B 98 7C 28 21 AF 3C 1D D8 10 08 59 AB F9 3E BF 42 63 D7 52 14 D2 65 C5 BF 1E	
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 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]	02 50 00 00 30 30 00	
9F 7E	Application Life Cycle Data [Mastercard]	03 10 0C 12 00 09 00 00 FF 00 04 00 00 02 60 00 00 38 4A 02 11 50 35 43 44 30 37 32 20	
C3	Card Issuer Action Code - Decline [Mastercard]	00 00 00	
C4	Card Issuer Action Code - Default [Mastercard]	19 50 00	
C5	Card Issuer Action Code - Online [Mastercard]	39 FB 00	
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]	09 78	

Tag	Element name	Data	v1.x
C9	CRM Currency Code [M/Chip4]	09 78	
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	

* Tag value changes with card usage

1.3 Test Card 03 – Mastercard, Magstripe-Only, YEN

A Mastercard credit card intended to be used to test for dynamic conversion: ‘Japanese Yen’.

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

1.4 Test Card 04 – Visa, Dual Interface, S. Korea, KRW

A Visa credit card with Issuer Country Code of ‘S. Korea’ and Currency Code of ‘Korean Won’.

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

1.4.1 CVM List – AID A0000000031010, Visa (EMV)

Cardholder Verification Method List (‘4203 5E03 1F00 0000’)			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Terminal Supports CVM Type	Next CVM
2	Signature (paper)	Terminal Supports CVM Type	Next CVM
3	No CVM required	Always	Fail
4	Fail CVM Processing	Always	Fail

1.4.2 Application Tag data (Contact)

Tag	Element name	Data	v1.x
42	Issuer Identification Number (IIN)	49 12 18	
50	Application Label	20 56 49 53 41 20 43 52 45 44 49 54 20 20 20 20 - ‘VISA CREDIT’	
57	Track 2 Equivalent Data	49 12 18 00 00 00 00 09 D2 51 22 01 14 83 59 49 99 99 1F	
5A	Application Primary Account Number (PAN)	49 12 18 00 00 00 00 09	
5F 20	Cardholder Name	4A 50 4D 20 44 43 43 2F 54 45 53 54 20 43 41 52 44 20 30 34 20 20 20 20 20 20 - ‘JPM DCC/TEST CARD 04’	
5F 24	Application Expiration Date	25 12 31	
5F 28	Issuer Country Code	04 10 - KOR	
5F 2D	Language Preference	65 6E - ‘en’	
5F 30	Service Code	02 01	

Tag	Element name	Data	v1.x
5F 34	Application PAN Sequence Number	01	
5F 55	Issuer Country Code (alpha2 format)	4B 52	
82	Application Interchange Profile [VIS]	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 via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa 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 03 5E 03 1F 00 00 00 00 00	
94	Application File Locator (AFL)	08 01 02 00 08 04 04 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 [VIS]	00 96	
9F 0D	Issuer Action Code - Default	00 00 00 00 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	56 69 73 61 20 43 72 65 64 69 74 20 20 20 20 20 - 'Visa Credit'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	09	
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 42	Application Currency Code	04 10 - KRW	
9F 44	Application Currency Exponent	00	
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	

Tag	Element name	Data	v1.x
9F 51	Application Currency Code [VSDC]	04 10 - KRW	
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]	04 10 - KOR	
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	10 00 F0 00	
9F 6B	Card CVM Limit [qVSDC]	00 00 00 00 00 00	
BF 55	Contactless Counters Data Template	DF 11 01 00 DF 21 01 00 DF 31 01 00	
BF 56	Counters Data Template	DF 11 01 04	
BF 57	International Counters Data Template	DF 11 01 04 DF 51 01 04	
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00	
BF 5A	AIP/AFL Entries Template	DF 11 0B 1C 00 08 08 01 02 00 08 04 04 00	
BF 5B	Application Internal Data Template	DF 01 02 00 00	

* Tag value changes with card usage

1.4.3 NO CVM List – AID A000000031010, Visa (qVSDC)

1.4.4 Application Tag data (Contactless)

Tag	Element name	Data	v1.x
42	Issuer Identification Number (IIN)	49 12 18	
50	Application Label	56 49 53 41 20 43 52 45 44 49 54 20 20 20 20 20 - 'VISA CREDIT'	
5F 2D	Language Preference	65 6E	
5F 55	Issuer Country Code (alpha2 format)	4B 52	
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10	
87	Application Priority Indicator	01	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	56 49 53 41 20 43 72 65 64 69 74 20 20 20 20 20 - 'Visa Credit'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	09	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 66 04 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04	
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]	04 10 - KRW	
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00 00 00	
9F 57	Issuer Country Code [VSDC]	04 10	
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	10 00 F0 00	
9F 6B	Card CVM Limit [qVSDC]	00 00 00 00 00 00	
BF 55	Contactless Counters Data Template	DF 11 01 00 DF 21 01 00 DF 31 01 00	
BF 56	Counters Data Template	DF 11 01 02	
BF 57	International Counters Data Template	DF 11 01 02 DF 51 01 02	
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00	
BF 59	Profile Controls Template		
BF 5A	AIP/AFL Entries Template	DF 11 0B 1C 00 08 08 01 02 00 08 04 04 00	
BF 5B	Application Internal Data Template	DF 01 02 00 00	

* Tag value changes with card usage

1.4.5 CVM List – AID A000000033010, Interlink (EMV)

Cardholder Verification Method List ('4103 4203 5E03 1F00 0000')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM
2	Online PIN	Terminal supports CVM type	Next CVM
3	Signature (paper)	Terminal supports CVM type	Next CVM
4	No CVM required	Always	Fail
5	Fail CVM Processing	Always	Fail

1.4.6 Application Tag data (Contact)

Tag	Element name	Data	v1.x
42	Issuer Identification Number (IIN)	49 12 18	
50	Application Label	49 4E 54 45 52 4C 49 4E 4B 20 20 20 20 20 20 20 - 'INTERLINK'	
57	Track 2 Equivalent Data	49 12 18 00 00 00 00 09 D2 51 22 01 14 83 59 49 99 99 1F	
5A	Application Primary Account Number (PAN)	49 12 18 00 00 00 00 09	
5F 20	Cardholder Name	4A 50 4D 20 44 43 43 2F 54 45 53 54 20 43 41 52 44 20 30 34 20 20 20 20 20 20 - 'JPM DCC/TEST CARD 04'	
5F 24	Application Expiration Date	25 12 31	
5F 28	Issuer Country Code	04 10 - KOR	
5F 2D	Language Preference	65 6E - 'en'	
5F 30	Service Code	02 01	
5F 34	Application PAN Sequence Number	01	
5F 55	Issuer Country Code (alpha2 format)	4B 52 - 'KR'	
82	Application Interchange Profile [VIS]	1C 00 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 via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - Use for Visa NOT supported b7 - Is NOT Mobile handset	
84	Dedicated File (DF) Name	A0 00 00 00 03 30 10	
87	Application Priority Indicator	02	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04	
8D	Card Risk Management Data Object List 2 (CDOL2)	8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 41 03 42 03 5E 03 1F 00 00 00	
94	Application File Locator (AFL)	08 01 03 00	

Tag	Element name	Data	v1.x
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 [VIS]	00 96	
9F 0D	Issuer Action Code - Default	00 00 00 00 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 20 20 20 20 20 20 20 - 'INTERLINK'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	09	
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 42	Application Currency Code	04 10 - KRW	
9F 44	Application Currency Exponent	00	
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]	04 10 - KRW	
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00 00 00	
9F 53	Consecutive Transaction Limit (International) [VSDC]	05	
9F 54	Cumulative Total Transaction Amount Limit [VSDC]	00 00 00 02 00 00	
9F 56	Issuer Authentication Indicator [VSDC]	00	
9F 57	Issuer Country Code [VSDC]	04 10 - KOR	
9F 58	Consecutive Transaction Counter Limit [VSDC]	05	
9F 59	Consecutive Transaction Counter Upper Limit [VSDC]	0A	
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 05 00 00	
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	0A	
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	10 00 F0 00	
9F 6B	Card CVM Limit [qVSDC]	00 00 00 00 00 00	
9F 6D	VLP Reset Threshold [VSDC]	00 00 00 00 00 00	
9F 72	Consecutive Transaction Limit (International-Country) [VSDC]	00	

Tag	Element name	Data	v1.x
BF 55	Contactless Counters Data Template	DF 11 01 00 DF 21 01 00 DF 31 01 00 DF 61 06 00 00 00 00 00	
BF 56	Counters Data Template	DF 11 01 03 DF 21 01 05 DF 31 01 0A	
BF 57	International Counters Data Template	DF 11 01 03 DF 21 01 05 DF 31 01 0A DF 51 01 03 DF 61 01 00	
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00 DF 21 06 00 00 00 02 00 00 DF 31 06 00 00 05 00 00	
BF 59	Profile Controls Template		
BF 5A	AIP/AFL Entries Template	DF 11 07 1C 00 04 08 01 03 00	
BF 5B	Application Internal Data Template	DF 01 02 00 00	
42	Issuer Identification Number (IIN)	49 12 18	

* Tag value changes with card usage

1.4.7 No CVM List – AID A000000033010, Interlink (qVSDC)

1.4.8 Application Tag data (Contactless)

Tag	Element name	Data	v1.x
42	Issuer Identification Number (IIN)	49 12 18	
50	Application Label	49 4E 54 45 52 4C 49 4E 4B 20 20 20 20 20 20 - 'INTERLINK'	
5F 2D	Language Preference	65 6E	
5F 55	Issuer Country Code (alpha2 format)	4B 52	
84	Dedicated File (DF) Name	A0 00 00 00 03 30 10	
87	Application Priority Indicator	02	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	49 4E 54 45 52 4C 49 4E 4B 20 20 20 20 20 20 - 'INTERLINK'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	09	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 66 04 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04	
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]	04 10 - KRW	
9F 52	Application Default Action [VSDC VIS 1.5]	00 00 00 00 00 00	
9F 53	Consecutive Transaction Limit (International) [VSDC]	05	
9F 54	Cumulative Total Transaction Amount Limit [VSDC]	00 00 00 02 00 00	
9F 57	Issuer Country Code [VSDC]	04 10	
9F 58	Consecutive Transaction Counter Limit [VSDC]	05	
9F 59	Consecutive Transaction Counter Upper Limit [VSDC]	0A	
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 05 00 00	
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	0A	
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	10 00 F0 00	

Tag	Element name	Data	v1.x
9F 6B	Card CVM Limit [qVSDC]	00 00 00 00 00 00	
9F 6D	VLP Reset Threshold [VSDC]	00 00 00 00 00 00	
9F 72	Consecutive Transaction Limit (International-Country) [VSDC]	00	
BF 55	Contactless Counters Data Template	DF 11 01 00 DF 21 01 00 DF 31 01 00 DF 61 06 00 00 00 00 00	
BF 56	Counters Data Template	DF 11 01 02 DF 21 01 05 DF 31 01 0A	
BF 57	International Counters Data Template	DF 11 01 02 DF 21 01 05 DF 31 01 0A DF 51 01 02 DF 61 01 00	
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00 DF 21 06 00 00 00 02 00 00 DF 31 06 00 00 00 05 00 00	
BF 59	Profile Controls Template		
BF 5A	AIP/AFL Entries Template	DF 11 07 1C 00 04 08 01 03 00	
BF 5B	Application Internal Data Template	DF 01 02 00 00	

* Tag value changes with card usage

1.5 Test Card 05 – Mastercard, Contact-Only, Chile, CLP

A Mastercard credit / debit card with Issuer Country Code of 'Chile' and Currency Code of 'Chilean Peso'.

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

1.5.1 CVM List – AID A000000041010, Mastercard Credit (EMV)

Cardholder Verification Method List ('4103 4203 5E03 1F00 0000')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM
2	Online PIN	Terminal supports CVM type	Next CVM
3	Signature (paper)	Terminal supports CVM type	Next CVM
4	No CVM required	Always	Fail
5	Fail CVM Processing	Always	Fail

1.5.2 Application Tag data (Contact)

Tag	Element name	Data	v1.x
42	Issuer Identification Number (IIN)	52 81 80	
50	Application Label	4D 41 53 54 45 52 43 41 52 44 43 52 45 44 49 54 - 'MASTERCARDCREDIT'	
57	Track 2 Equivalent Data	52 81 80 00 00 00 00 02 D2 51 22 01 14 83 59 49 00 0F	
5A	Application Primary Account Number (PAN)	52 81 80 00 00 00 00 02	
5F 20	Cardholder Name	4A 50 4D 20 44 43 43 2F 54 45 53 54 20 43 41 52 44 20 30 35 20 20 20 20 20 20 - 'JPM DCC/TEST CARD 05'	
5F 24	Application Expiration Date	25 12 31	
5F 25	Application Effective Date	xx xx xx *	
5F 28	Issuer Country Code	01 52 - CHL	
5F 2D	Language Preference	65 6E - 'en'	
5F 30	Service Code	02 01	

Tag	Element name	Data	v1.x
5F 34	Application PAN Sequence Number	01	
5F 55	Issuer Country Code (alpha2 format)	43 4C - 'CL'	
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 via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless 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 41 03 42 03 5E 03 1F 00 00 00	
94	Application File Locator (AFL)	08 01 03 00	
94	Application File Locator (AFL)	08 01 03 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	
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	4D 61 73 74 65 72 63 61 72 64 43 72 65 64 69 74 - 'MastercardCredit'	
9F 14	Counter 1 Lower Limit [Mastercard]	00	
9F 17	Personal Identification Number (PIN) Try Counter	09	
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	01 52 - CLP	
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	

Tag	Element name	Data	v1.x
9F 6E	Third Party Data [Mastercard]	01 52 00 00 30 30 00	
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 96 00 97 02 00 5A 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]	09	
C7	CDOL1 Related Data Length [Mastercard]	42	
C8	CRM Country Code [Mastercard]	01 52 - CHL	
C9	Accumulator 1 Currency Code [Mastercard]	01 52 - CLP	
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]	00 00 00	
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	00 00 00	
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00	
D1	Accumulator 1 Currency Conversion Table [Mastercard]	01 52 00 01 00 01 52 00 01 00 01 52 00 01 00 01 52 00 01 00 01 52 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]	84 00 80 00 C6 02	
D6	Default ARPC Response Code [M/Chip Advance]	00 10	
D7	Application Control [M/Chip Advance]	00 00 00 00 00 00	
D9	Application File Locator (Contactless)		
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]	00	
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]	01 52 - CLP	
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	01 52 00 01 00 01 52 00 01 00 01 52 00 01 00 01 52 00 01 00 01 52 00 01 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]	00	
DF 1D	Counter 2 Control (Contact) [M/Chip Advance]	00	
DF 1E	Counter 2 Control (Contactless) [M/Chip Advance]	00	

Tag	Element name	Data	v1.x
	Advance]		
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]	01 52 - CLP	
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 41	DS Management Control [M/Chip Advance]	20	

* Tag value changes with card usage

1.5.3 CVM List – AID A0000000043060, Maestro

Cardholder Verification Method List ('4103 4203 5E03 0000')			
CVM	Verification Method	Conditions	If unsuccessful
1	Offline Plaintext PIN	Terminal supports CVM type	Next CVM
2	Online PIN	Terminal supports CVM type	Next CVM
3	Signature (paper)	Terminal supports CVM type	Next CVM
4	Fail CVM Processing	Always	Fail

1.5.4 Application Tag data (Contact)

Tag	Element name	Data	v1.x
42	Issuer Identification Number (IIN)	67 67 74	

Tag	Element name	Data	v1.x
50	Application Label	4D 41 45 53 54 52 4F 20 20 20 20 20 20 20 20 20 - 'MAESTRO'	
57	Track 2 Equivalent Data	67 67 74 00 00 00 00 00 3D 25 12 20 11 48 35 94 90 00 0F	
5A	Application Primary Account Number (PAN)	67 67 74 00 00 00 00 00 3F	
5F 20	Cardholder Name	4A 50 4D 20 44 43 43 2F 54 45 53 54 20 43 41 52 44 20 30 35 20 20 20 20 20 20 - 'JPM DCC/TEST CARD 05'	
5F 24	Application Expiration Date	25 12 31	
5F 25	Application Effective Date	xx xx xx *	
5F 28	Issuer Country Code	01 52 - CHL	
5F 2D	Language Preference	65 6E - 'en'	
5F 30	Service Code	02 01	
5F 34	Application PAN Sequence Number	01	
5F 55	Issuer Country Code (alpha2 format)	43 4C - 'CL'	
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 via EXTERNAL AUTH command b2 - On device Cardholder verification NOT supported b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless NOT supported	
84	Dedicated File (DF) Name	A0 00 00 00 04 30 60	
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 41 03 42 03 5E 03 00 00 00 00	
94	Application File Locator (AFL)	08 01 02 00 08 04 04 00	
94	Application File Locator (AFL)	08 01 02 00 08 04 04 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	
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 *	

Tag	Element name	Data	v1.x
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	4D 61 65 73 74 72 6F 20 20 20 20 20 20 20 20 20 - 'Maestro'	
9F 14	Counter 1 Lower Limit [Mastercard]	00	
9F 17	Personal Identification Number (PIN) Try Counter	09	
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	01 52 - CLP	
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 6E	Third Party Data [Mastercard]	01 52 00 00 30 30 00	
9F 7E	Application Life Cycle Data [Mastercard]	04 10 0B 14 00 01 00 00 50 17 79 00 A0 00 00 00 04 30 60 00 00 00 00 00 00 00 00 00 96 00 97 02 00 5A 5A 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]	09	
C7	CDOL1 Related Data Length [Mastercard]	42	
C8	CRM Country Code [Mastercard]	01 52 - CHL	
C9	Accumulator 1 Currency Code [Mastercard]	01 52 - CLP	
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]	00 00 00	
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	00 00 00	
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00	
D1	Accumulator 1 Currency Conversion Table [Mastercard]	01 52 00 01 00 01 52 00 01 00 01 52 00 01 00 01 52 00 01 00 01 52 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	
D5	Application Control [M/Chip Advance]	84 00 80 00 C6 02	
D6	Default ARPC Response Code [M/Chip Advance]	00 10	
D7	Application Control [M/Chip Advance]	00 00 00 00 00 00	
D9	Application File Locator (Contactless)		
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]	00	
DF 14	Accumulator 2 Control (Contact) [M/Chip Advance]	00	

Tag	Element name	Data	v1.x
DF 15	Accumulator 2 Control (Contactless) [M/Chip Advance]	00	
DF 16	Accumulator 2 Currency Code [Mastercard]	01 52 - CLP	
DF 17	Accumulator 2 Currency Conversion Table [Mastercard]	01 52 00 01 00 01 52 00 01 00 01 52 00 01 00 01 52 00 01 00 01 52 00 01 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]	00	
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]	01 52 - CLP	
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 41	DS Management Control [M/Chip Advance]	20	

* Tag value changes with card usage

1.6 Test Card 06 – Mastercard, Dual Interface, Great Britain, GBP

A Mastercard credit card with Issuer Country Code of 'Great Britain' and Currency Code of 'Great British Pound' / 'Pounds Sterling'.

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

1.6.1 CVM List – AID A0000000041010, Mastercard (EMV)

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

1.6.2 Application Tag data (Contact)

Tag	Element name	Data	v1.x
50	Application Label	4D 41 53 54 45 52 43 41 52 44 - 'MASTERCARD'	
57	Track 2 Equivalent Data	51 01 08 00 00 00 09 D2 80 52 01 01 23 40 00 00 0F	
5A	Application Primary Account Number (PAN)	51 01 08 00 00 00 09	
5F 20	Cardholder Name	4A 50 4D 20 44 43 43 2F 54 45 53 54 20 43 41 52 44 20 30 36 20 20 20 20 20 20 - 'JPM DCC/TEST CARD 06'	
5F 24	Application Expiration Date	28 05 31	
5F 25	Application Effective Date	xx xx xx *	
5F 28	Issuer Country Code	08 26 - GBR	
5F 2D	Language Preference	65 6E - 'en'	
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 via EXTERNAL AUTH command b1 - Combined DDA / GEN AC NOT supported BYTE 2: b8 - EMV Contactless 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 41 03 5E 03 1F 03	
8F	Certification Authority Public Key Index	EF	

Tag	Element name	Data v1.x
90	Issuer Public Key Certificate	5B 2E 1F EF 4D 7D 2C 16 16 12 21 F7 97 2F E6 99 B7 82 44 E0 73 C8 AC 75 86 CE D1 76 EF 7B 93 AC 19 0B 05 70 40 E1 18 4F 2F 55 AC 70 D2 AA C3 94 BE 22 6A 26 50 D3 CA ED 90 60 88 C5 3A 88 B8 3C 46 1F 37 6D 89 10 B8 51 81 54 F3 08 EE ED 23 BC 15 7C FA BA 6E 51 26 9F 01 6D 59 FE 21 A6 F9 10 F2 85 13 0D EA F6 A4 78 BE 77 9D 2B AD 08 E1 2E D6 A5 93 71 5A 18 72 15 C5 63 28 1C B2 B7 2E 5B 14 05 5D 2D D8 30 4A C2 20 2E 53 96 D0 4C 5C 79 55 0B 4D E9 FA DA CB 35 F3 19 06 C5 A4 42 27 29 D6 A5 A8 F5 E1 4C B9 0D B7 05 49 4B 3D B1 0D E6 19 F3 B0 3E 64 96 FE 79 F4 6E 64 97 2A 46 34 A0 35 EF 7E 50 20 49 40 36 03 E0 BC FC 33 C3 87 BB 6D 72 CF F8 33 89 7E 81 F5 02 3F F4 D6 A9 CC 0C 89 E8 78 3F 07 B7 F0 55 3E 9D D3 59 B6 5B 62 3A F1 CE 27 8D 65 3C 37 07
92	Issuer Public Key Remainder	14 3E 90 B8 B5 E6 2B E5 A9 0D 5A 4E F1 5C 77 40 4D 29 94 48 98 77 85 D7 E8 80 C2 CD
94	Application File Locator (AFL)	08 02 04 01 18 01 01 00 20 01 01 00
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
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	4D 61 73 74 65 72 43 61 72 64 - 'MasterCard'
9F 14	Counter 1 Lower Limit [Mastercard]	00
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	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

Tag	Element name	Data	v1.x
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 42	Application Currency Code	08 26 - GBP	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	0C 11 09 7B 0C B7 CA 60 F7 51 4F 26 E6 82 6A 53 A3 3C C7 9C 1E B2 57 5A 91 AC A4 4D 95 C8 7A A0 34 11 79 5C 8D AB 17 07 B8 FD 2A 23 10 AD C8 AE 77 38 AE 94 85 B9 93 C8 B2 17 6C ED 89 D0 E9 87 C1 8C A7 66 A4 04 1B A6 C1 A3 37 5F 51 FA F8 F7 25 11 5F 0C F7 24 72 B8 83 F7 3F 94 8E F6 C4 34 82 E2 48 60 40 C0 27 BE 6B 1D 5C 79 02 9F 79 6A E2 B8 78 C8 43 84 6C 20 62 51 C8 B8 DF 62 38 E9 E2 68 EE 01 B1 87 9A 21 36 65 CA 0B C3 AF E0 7B 50 BD ED 50 CA 71 CE D3 8B 8D B7 97 39 E3 A2 15 DF 7A 5B C8 8C 57 20 4E AE 90 9A C9 F1 9F 9A 7D 76 44 61 18 59 85 66 A4 DD 9B 22 B6 5F 72 2A D4 A7 2D B9 AF 07 F1 93 4B 6E DA A1 A2 D7 77 B5 7E 01 63 7A 83 F1 27 8C AA D0 C2 08 51 EC 25 73 63 5A 3F D9 FB 44 9F 6B 9B F7 8E C0 10 AB A5 53 70	
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 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 5D	Application Capabilities Information [M/Chip Advance]	01 00 00	
9F 6E	Third Party Data [Mastercard]	08 26 00 00 30 30 00	
9F 70	Protected Data Envelope 1 [M/Chip Advance]	20 20	
9F 71	Protected Data Envelope 2 [M/Chip Advance]	20 20	
9F 72	Protected Data Envelope 3 [M/Chip Advance]	20 20	
9F 73	Protected Data Envelope 4 [M/Chip Advance]	20 20	
9F 74	Protected Data Envelope 5 [M/Chip Advance]	20 20	

Tag	Element name	Data	v1.x
9F 75	Unprotected Data Envelope 1 [M/Chip Advance]	20 20	
9F 76	Unprotected Data Envelope 2 [M/Chip Advance]	20 20	
9F 77	Unprotected Data Envelope 3 [M/Chip Advance]	20 20	
9F 78	Unprotected Data Envelope 4 [M/Chip Advance]	20 20	
9F 79	Unprotected Data Envelope 5 [M/Chip Advance]	20 20	
9F 7E	Application Life Cycle Data [Mastercard]	03 10 0C 12 00 09 00 00 FF 00 04 00 00 02 60 00 00 38 4A 02 11 50 35 43 44 30 37 32 20	
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 00 00	
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	19 50 00	
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	39 FB 00	
C6	PIN Try Limit [M/Chip Advance]	09	
C7	CDOL1 Related Data Length [Mastercard]	42	
C8	CRM Country Code [Mastercard]	08 26 – GBR	
C9	Accumulator 1 Currency Code [Mastercard]	08 26 – GBP	
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]	00 58 00	
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	00 F8 00	
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00	
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 26 00 01 00 08 26 00 01 00 08 26 00 01 00 08 26 00 01 00 08 26 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]	8C 00 80 00 86 02	
D6	Default ARPC Response Code [M/Chip Advance]	00 12	
D7	Application Control [M/Chip Advance]	40 01 40 00 86 02	
D9	Application File Locator (Contactless)	08 01 01 00 10 01 01 01 18 01 01 00 20 01 02 00	
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	

Tag	Element name	Data	v1.x
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 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 00 09 99 00 01 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	
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]	03	
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 00 00 00	

Tag	Element name	Data	v1.x
DF 40	Read Record Filter (Contactless) [M/Chip Advance]	08 03 03 00	
DF 41	DS Management Control [M/Chip Advance]	20	

* Tag value changes with card usage

1.6.3 CVM List – AID A000000041010, Mastercard (PayPass)

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

1.6.4 Application Tag data (Contactless)

Tag	Element name	Data	v1.x
50	Application Label	4D 41 53 54 45 52 43 41 52 44 - 'MASTERCARD'	
56	Track 1 Equivalent Data [Mastercard]	42 35 31 30 31 30 38 30 30 30 30 30 30 30 30 30 39 5E 20 2F 5E 32 38 30 35 32 30 31 30	
57	Track 2 Equivalent Data	51 01 08 00 00 00 00 09 D2 80 52 01 01 23 40 00 00 00 0F	
5A	Application Primary Account Number (PAN)	51 01 08 00 00 00 00 09	
5F 24	Application Expiration Date	28 05 31	
5F 25	Application Effective Date	xx xx xx *	
5F 28	Issuer Country Code	08 26 - GBR	
5F 2D	Language Preference	65 6E - 'en'	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile	19 80 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 via EXTERNAL AUTH command b1 - Combined DDA / GEN AC supported BYTE 2: b8 - EMV Contactless 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 5E 03 1F 03	
8F	Certification Authority Public Key Index	EF	

Tag	Element name	Data	v1.x
90	Issuer Public Key Certificate	5B 2E 1F EF 4D 7D 2C 16 16 12 21 F7 97 2F E6 99 B7 82 44 E0 73 C8 AC 75 86 CE D1 76 EF 7B 93 AC 19 0B 05 70 40 E1 18 4F 2F 55 AC 70 D2 AA C3 94 BE 22 6A 26 50 D3 CA ED 90 60 88 C5 3A 88 B8 3C 46 1F 37 6D 89 10 B8 51 81 54 F3 08 EE ED 23 BC 15 7C FA BA 6E 51 26 9F 01 6D 59 FE 21 A6 F9 10 F2 85 13 0D EA F6 A4 78 BE 77 9D 2B AD 08 E1 2E D6 A5 93 71 5A 18 72 15 C5 63 28 1C B2 B7 2E 5B 14 05 5D 2D D8 30 4A C2 20 2E 53 96 D0 4C 5C 79 55 0B 4D E9 FA DA CB 35 F3 19 06 C5 A4 42 27 29 D6 A5 A8 F5 E1 4C B9 0D B7 05 49 4B 3D B1 0D E6 19 F3 B0 3E 64 96 FE 79 F4 6E 64 97 2A 46 34 A0 35 EF 7E 50 20 49 40 36 03 E0 BC FC 33 C3 87 BB 6D 72 CF F8 33 89 7E 81 F5 02 3F F4 D6 A9 CC 0C 89 E8 78 3F 07 B7 F0 55 3E 9D D3 59 B6 5B 62 3A F1 CE 27 8D 65 3C 37 07	
92	Issuer Public Key Remainder	14 3E 90 B8 B5 E6 2B E5 A9 0D 5A 4E F1 5C 77 40 4D 29 94 48 98 77 85 D7 E8 80 C2 CD	
94	Application File Locator (AFL)	08 01 01 00 10 01 01 01 18 01 01 00 20 01 02 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	B4 50 80 80 00	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	B4 70 80 80 00	
9F 10	Issuer Application Data [M/Chip Advance]	xx 11 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	Counter 1 Lower Limit [Mastercard]	00	
9F 17	Personal Identification Number (PIN) Try Counter	09	
9F 23	Counter 1 Upper Limit [Mastercard]	00	
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 26 - GBP	
9F 44	Application Currency Exponent	02	

Tag	Element name	Data	v1.x
9F 46	ICC Public Key Certificate	67 CE BB EB 4B D5 9B D4 53 50 11 84 15 75 D0 BE 8F F4 67 85 E0 76 87 EC B4 BE 9C C0 98 57 CF 57 59 24 9F 5E A2 D7 BE AD C6 82 51 8E 91 CE 92 4D 05 D9 39 0D 14 69 61 47 F2 C1 2F 76 72 3C A7 5B 6D 83 15 06 9F 1B FC C2 29 7B 30 86 7D 9D 6B F6 A7 1F 3F DD 4D 3A D9 85 00 E0 2B E2 59 A0 93 C1 47 A2 0B 78 F6 27 90 63 19 25 FC C5 F3 C2 DA 25 09 9F 32 B5 35 5E 32 5A C1 C0 13 DB 7D 32 5B 34 72 36 88 32 D4 97 57 BB 7F 34 B9 4F FE 7A 91 5F B9 48 0C 00 A6 98 94 52 05 61 50 DB 66 6C CD 9B EB FB 39 11 97 00 E8 47 6F AD F7 E5 AB 09 90 4F 0B E3 24 68 42 F0 D5 0A EE 1A 4A B3 D0 1B A0 A3 2A E4 7F 1F BF 4A 16 1A 21 41 41 EC 59 2A 97 F8 68 93 8F 30 76 D9 EA 18 1D C2 5A 71 68 BF 30 2F 74 F1 24 74 DA 46 5A 35 F9 A6 0E 2F B1 58 AE DB	
9F 47	ICC Public Key Exponent	03	
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 DF 3E 01 9F 21 03 9F 7C 14	
9F 5D	Application Capabilities Information [M/Chip Advance]	01 00 00	
9F 60	CVC3track1 [Mastercard]	C5 23	
9F 61	CVC3track2 [Mastercard]	A4 6C	
9F 62	Track 1 Bitmap for CVC3 (PCVC3 Track 1) [Mastercard]	00 00 00 38 00 00	
9F 63	Track 1 Bitmap for UN and ATC (PUNATC Track 1) [Mastercard]	00 00 00 00 E0 E0	
9F 64	Track 1 Number of ATC Digits (NATC Track 1) [Mastercard]	03	
9F 65	Track 2 Bitmap for CVC3 (PCVC3 Track 2) [Mastercard]	00 0E	
9F 66	Track 2 Bitmap for UN and ATC (PUNATC Track 2) [Mastercard]	0E 70	
9F 67	Track 2 Number of ATC Digits (NATC Track 2) [Mastercard]	03	
9F 6B	Track 2 Equivalent Data [Mastercard]	51 01 08 00 00 00 00 09 D2 80 52 01 00 00 40 00 00 00 0F	
9F 6C	Application Version [Mastercard]	00 01	
9F 6E	Third Party Data [Mastercard]	08 26 00 00 30 30 00	
9F 7E	Application Life Cycle Data [Mastercard]	03 10 0C 12 00 09 00 00 FF 00 04 00 00 02 60 00 00 38 4A 02 11 50 35 43 44 30 37 32 20	
C3	Card Issuer Action Code (Contact) - Decline [M/Chip Advance]	00 00 00	

Tag	Element name	Data	v1.x
C4	Card Issuer Action Code (Contact) - Default [M/Chip Advance]	19 50 00	
C5	Card Issuer Action Code (Contact) - Online [M/Chip Advance]	39 FB 00	
C6	PIN Try Limit [M/Chip Advance]	09	
C7	CDOL1 Related Data Length [Mastercard]	42	
C8	CRM Country Code [Mastercard]	08 26	
C9	Accumulator 1 Currency Code [Mastercard]	08 26	
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]	00 58 00	
CE	Card Issuer Action Code (Contactless) - Online [M/Chip Advance]	00 F8 00	
CF	Card Issuer Action Code (Contactless) - Decline [M/Chip Advance]	00 00 00	
D1	Accumulator 1 Currency Conversion Table [Mastercard]	08 26 00 01 00 08 26 00 01 00 08 26 00 01 00 08 26 00 01 00 08 26 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]	8C 00 80 00 86 02	
D6	Default ARPC Response Code [M/Chip Advance]	00 12	
D7	Application Control [M/Chip Advance]	40 01 40 00 86 02	
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00	

* Tag value changes with card usage

Chapter 2 - ASCII Character Conversion Chart

Dec	Bin	Hex	Char	Dec	Bin	Hex	Char	Dec	Bin	Hex	Char
00	00000000	00	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				