



**Elavon
DCC Test Card Set**

Version 2.00

April 2021

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Revision History

Version	Date	Updated By	Revisions
1.00	July 14, 2016	B2PS	<ul style="list-style-type: none">• Initial document release
1.01	June 26, 2019	B2PS	<ul style="list-style-type: none">• “UL” branding removed from page header. No change to cards themselves.
2.00	April 2, 2021	B2PS	<ul style="list-style-type: none">• TC01 – updated cardstock support.• TC02, TC03 – change Expiry Date to 25/12
			<ul style="list-style-type: none">•

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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 - Elavon Dynamic Currency Conversion (DCC) Test Card Set Profiles

The Elavon DCC (Dynamic Currency Conversion) Test Card Set contains 4 cards featuring multiple Issuer Country and Currency codes.



	Test Card 01	Test Card 02	Test Card 03
Brand	Visa	Visa	Mastercard
Description (Card - Types)	Credit	Credit	Credit
AID list	A0000000031010	A0000000031010	A0000000041010
PAN list	4032 7600 0999 9999	4160 2944 4444 4449	5101 0800 0000 0009
Expiry Date	12/2022	12/2022	12/2025
Service Code	201	201	201
Interface	Contactless, Contact, MSR	Contact, MSR	Contactless, Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	\$10.00	\$10.00	\$20.00
Issuer Country Code	124 - CAN	250 - FRA	826 - GBR
Application Currency Code	124 -CAD	978 - EUR	826 - GBP
Language	'enfr' - English, French	'fren' - French, English	'fren' - French, English
Card Version	v2.x	v1.x	v2.x

Test Card 04	
Brand	Mastercard
Description (Card - Types)	Credit
AID list	A0000000041010
PAN list	5120 7900 0000 0000
Expiry Date	12/2025
Service Code	201
Interface	Contact, MSR
CVM	See card definition
Approval Amount	\$20.00
Issuer Country Code	392 - JPN
Application Currency Code	392 -JPY
Language	'jpen' - Japanese, English
Card Version	v2.x

1.1 Test Card 01 - Visa, DI, English/French, Canada, CAD

A Dual Interface (Contact+Contactless) Visa card with an Issuer Country Code of Canada and Currency Code of CAD. Languages supported are English and French.

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

1.1.1 Contact Interface: CVM List - Visa, AID A000000031010

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

1.1.2 Contact Interface: Application Tag data, AID A000000031010

Tag	Element name	Data	v2.x
50	Application Label	56 49 53 41 20 43 52 45 44 49 54 - 'VISA CREDIT'	
57	Track 2 Equivalent Data	40 32 76 00 09 99 99 99 D2 21 22 01 11 43 80 44 00 00 0F	
5A	Application Primary Account Number (PAN)	40 32 76 00 09 99 99 99	
5F 20	Cardholder Name	45 4C 41 56 4F 4E 20 44 43 43 2F 54 45 53 54 20 43 41 52 44 20 30 31 20 20 20 - 'ELAVON DCC/Test Card 01'	
5F 24	Application Expiration Date	22 12 31	
5F 25	Application Effective Date	xx xx xx *	
5F 28	Issuer Country Code	01 24 - CAN	
5F 2D	Language Preference	65 6E 66 72 - 'enfr' (English, French)	
5F 30	Service Code	02 01	
5F 34	Application PAN Sequence Number	01	
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	
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 41 03 5E 03 1F 03	
8F	Certification Authority Public Key Index	92	

Tag	Element name	Data	v2.x
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	
94	Application File Locator (AFL)	10 01 01 00 10 02 05 01 B0 01 01 00	
9F 07	Application Usage Control	FF 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 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	B8 50 AC 88 00	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	B8 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 - 'Visa Credit'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 17	Personal Identification Number (PIN) Try Counter	09	
9F 1F	Track 1 Discretionary Data	31 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)	00 0B	
9F 42	Application Currency Code	01 24 - CAN	
9F 44	Application Currency Exponent	02	

Tag	Element name	Data	v2.x
9F 46	ICC Public Key Certificate	3C 2B 4A 46 69 3F 56 01 EA 41 9B 61 34 EB 35 5D 0B 2A 1B 0F A1 9D 4C 64 CA BF A1 3B ED 58 09 AC F6 35 5B B8 58 9D FA 86 54 C6 EA 56 4F 0B A7 A1 8C 02 72 17 47 95 C2 D4 98 FD 45 56 22 4B C7 6F AC DA 98 7C 2B E2 8B 28 4F 51 56 4E E7 14 38 51 08 5D E0 03 6C 24 80 14 B5 5A 41 EF B2 2C 9E 5E 33 5C 03 DB B2 1A 82 F2 99 02 1C 14 12 64 08 23 60 3D 31 62 6A 69 CB F1 A7 27 29 D1 B5 36 D8 ED B7 EC 6F 9C 81 B1 15 7D 5C A1 7D F2 70 82 A2 EA 9F 5E 53 6B 8F 2F 57 E8 5B A0 98 A2 42 55 23 1D 8F 9E 2F E9 0E C2 FE 42 74 0E 22 2A 85 FD 1B B4	
9F 47	ICC Public Key Exponent	03	
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04	
9F 4A	Static Data Authentication Tag List	82	
9F 51	Application Currency Code [VSDC]	01 24 - CAD	
9F 52	Application Default Action [VSDC VIS 1.5]	C0 30 00 00 00 00	
9F 53	Consecutive Transaction Limit (International) [VSDC]	03	
9F 54	Cumulative Total Transaction Amount Limit [VSDC]	00 00 00 02 00 00	
9F 56	Issuer Authentication Indicator [VSDC]	80	
9F 57	Issuer Country Code [VSDC]	01 24 - CAN	
9F 58	Consecutive Transaction Counter Limit [VSDC]	03	
9F 59	Consecutive Transaction Counter Upper Limit [VSDC]	07	
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 04 00 00	
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	07	
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	0A 00 F0 00	
9F 72	Consecutive Transaction Limit (International-Country) [VSDC]	03	
BF 55	Contactless Counters Data Template	DF 11 01 00 DF 21 01 03 DF 31 01 07	
BF 56	Counters Data Template	DF 11 01 02 DF 21 01 03 DF 31 01 07	
BF 57	International Counters Data Template	DF 11 01 02 DF 21 01 03 DF 31 01 07 DF 51 01 05 DF 61 01 03	
BF 58	Amounts Data Template	DF 11 06 00 00 00 01 00 00 DF 21 06 00 00 00 02 00 00 DF 31 06 00 00 00 04 00 00	
BF 5B	Application Internal Data Template	DF 01 02 00 00	

* Tag value changes with card usage

1.1.3 Contactless Interface: Application Tag data, AID A000000031010

Tag	Element name	Data v1.x
50	Application Label	56 49 53 41 20 43 52 45 44 49 54 - 'VISA CREDIT'
57	Track 2 Equivalent Data	40 32 76 00 09 99 99 99 D2 21 22 01 11 43 80 44 00 00 0F
5A	Application Primary Account Number (PAN)	40 32 76 00 09 99 99 99
5F 24	Application Expiration Date	22 12 31
5F 2D	Language Preference	65 6E 66 72 - 'enfr' (English, French)
5F 34	Application PAN Sequence Number	01
82	Application Interchange Profile [VCPS]	00 00 BYTE 1: b7 - Offline SDA (online Auth) NOT supported b6 - Offline DDA NOT supported BYTE 2: b8 - MSD NOT supported b7 - Is Mobile handset b6 - Is Contactless transaction
84	Dedicated File (DF) Name	A0 00 00 00 03 10 10
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
94	Application File Locator (AFL)	10 04 07 00
9F 10	Issuer Application Data [VSDC]	xx xx 0A xx xx xx xx *
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 32	Issuer Public Key Exponent	03
9F 36	Application Transaction Counter (ATC)	00 08
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

Tag	Element name	Data	v1.x
9F 46	ICC Public Key Certificate	69 E3 2A 86 CB 34 DA 9C 36 69 44 E9 75 23 9A D6 5D C1 7C FB 12 7F F3 4F CD DE 19 A5 B3 7F 70 E8 9B 71 7D 33 77 C0 F2 E5 A8 23 DA 54 56 C0 39 CC E4 31 A8 9A 45 44 F7 54 4E 53 37 94 9A 8F C3 F7 2A 0E 15 3A 0C D4 AB E6 08 A8 75 6A 64 1E 6D E6 A4 CF 92 16 C4 A9 D6 C6 65 4D 9A 02 0A D2 CA 4D 26 77 F6 B9 E9 FE 5B 5D E3 1A C6 A1 6E A0 EA D8 20 1A 29 72 8E 9C 6F B9 43 22 A0 68 EA DB 0B D1 FD E1 31 E7 73 0B 45 23 9E 01 39 17 F6 AA E0 8C 47 E6 23 22 5A 44 55 92 FF 8A 76 2A 7A 14 BE 00 05 F4 DA F9 52 33 10 6F 3E 3B A2 D1 F1 8E C7 99	
9F 47	ICC Public Key Exponent	03	
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 30 00 00 00 00	
9F 53	Consecutive Transaction Limit (International) [VSDC]	03	
9F 54	Cumulative Total Transaction Amount Limit [VSDC]	00 00 00 02 00 00	
9F 56	Issuer Authentication Indicator [VSDC]	80	
9F 57	Issuer Country Code [VSDC]	01 24 - CAN	
9F 58	Consecutive Transaction Counter Limit [VSDC]	03	
9F 59	Consecutive Transaction Counter Upper Limit [VSDC]	07	
9F 5A	Application Program Identifier	31 08 40 08 40	
9F 5C	Cumulative Total Transaction Amount Upper Limit [VSDC]	00 00 00 04 00 00	
9F 5E	Consecutive Transaction International Upper Limit [VSDC]	07	
9F 68	Card Additional Processes [qVSDC VCPS 2.1]	0A 00 F0 00	
9F 69	Card Authentication Related Data [qVSDC]	01 00 00 00 00 00 00	
9F 6C	Card Transaction Qualifiers [qVSDC VCPS 2.1]	38 00 BYTE 1: b8 - Domestic cash trans. NOT valid b7 - Int'l cash transactions NOT valid b6 - Domestic goods valid b5 - International goods valid b4 - Domestic services valid b3 - International services NOT valid b2 - ATMs NOT valid b1 - non-ATM terminals NOT valid BYTE 2: b8 - Domestic cashback NOT allowed b7 - International cashback NOT allowed	
9F 6E	Form Factor Indicator [qVSDC]	20 70 00 00	
9F 72	Consecutive Transaction Limit (International-Country) [VSDC]	03	
BF 55	Contactless Counters Data Template	DF 11 01 00 DF 21 01 03 DF 31 01 07	
BF 56	Counters Data Template	DF 11 01 01 DF 21 01 03 DF 31 01 07	

Tag	Element name	Data	v1.x
BF 57	International Counters Data Template	DF 11 01 01 DF 21 01 03 DF 31 01 07 DF 51 01 04 DF 61 01 03	
BF 58	Amounts Data Template	DF 11 06 00 00 00 01 00 00 DF 21 06 00 00 00 02 00 00 DF 31 06 00 00 00 04 00 00	
BF 5B	Application Internal Data Template	DF 01 02 00 00	

* Tag value changes with card usage

1.2 Test Card 02 - Visa, CO, French/English, France, EUR

A contact-only Visa card with an Issuer Country Code of France and Currency Code of Euro. Languages supported are French and English.

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

1.2.1 Contact Interface: CVM List - Visa, AID A000000031010

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	Terminal supports CVM type	Fail

1.2.2 Contact Interface: Application Tag data, AID A000000031010

Tag	Element name	Data	v1.x
50	Application Label	56 49 53 41 20 43 52 45 44 49 54 - 'VISA CREDIT'	
57	Track 2 Equivalent Data	41 60 29 44 44 44 44 49 D2 21 22 01 11 43 80 44 00 00 0F	
5A	Application Primary Account Number (PAN)	41 60 29 44 44 44 44 49	
5F 20	Cardholder Name	45 4C 41 56 4F 4E 20 44 43 43 2F 54 45 53 54 20 43 41 52 44 20 30 32 20 20 20 - 'ELAVON DCC/Test Card 02'	
5F 24	Application Expiration Date	22 12 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 - 'fren' French, 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 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	

Tag	Element name	Data	v1.x
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	6A 23 11 AE EF 7E 56 45 61 FE AA 04 BD D2 3B 69 2B 0F CF 65 2C 76 44 24 22 5A 9D 69 19 30 B4 74 B5 57 EC 2D FC 33 51 E5 F5 EE AC 8C 43 8C EF 62 90 4C 5D DF 22 B0 CC 47 59 19 E0 BA BF 0A 39 85 D6 F5 58 82 EB A8 A0 4E F0 66 F1 95 31 4B 9C E1 0F 1A 7B CB B1 E0 61 3A 73 92 86 C3 29 6F 5B E6 73 A6 47 1D 0E 9D 27 37 C6 1D F1 77 E9 03 06 46 8D 4D 90 71 EB 9F FE D9 3B 39 D7 50 61 78 A3 B0 CB BB D6 B1 67 AC 4B E5 ED 11 FC 12 70 81 B5 0B F3 DE 4C 30 76 55 9B 48 2C 0B 2D F1 62 E1 FC 70 0A 58 A6 E2 1B B2 20 D6 CE CE 8C C1 36 5A 15 69	
94	Application File Locator (AFL)	10 01 01 00 10 02 04 01 10 06 06 00 B0 01 01 00	

Tag	Element name	Data	v1.x
9F 07	Application Usage Control	FF 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 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'	
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 42	Application Currency Code	09 78 - EUR	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	7D 9C 65 5B 34 55 36 73 06 F0 B1 29 35 39 C4 2B 68 AA 3E 0D AC D9 50 8E 79 0F 84 BF DD 7A A2 34 1E D6 F2 BB 8D 3B 0A F4 B7 2B 32 9F 40 A7 3B B1 4B 48 BA 71 20 9B E3 FD 52 CA 36 4F E6 6A E6 CB 0D 53 64 9A 9C 91 06 77 4B 49 6E 37 23 0B 20 9D 9A 3E F9 82 C6 D8 5A 52 07 EE 9E 00 F1 49 9B 74 56 E8 43 E1 4C F0 47 8B E8 3B 71 CD 32 B5 76 26 5C 64 11 56 FA 96 5B 69 99 B5 EC 13 84 32 97 5D 5E 84 5E D4 07 DB 53 18 C7 F2 5A B1 2C BC 16 6E 9B 65 9B 23 48 AD 22 A6 DF 9E B3 A5 1C 8D 80 22 37 6C 00 28 DE 67 C3 DB 83 FA 41 54 C6 CB 34 1F	
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]	09 78 - EUR	
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	v1.x
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]	02 50 - FRA	
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]	02 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 01 DF 21 01 00 DF 31 01 00	
BF 57	International Counters Data Template	DF 11 01 01 DF 21 01 00 DF 31 01 00 DF 51 01 01	
BF 58	Amounts Data Template	DF 11 06 00 00 00 00 00 00 DF 21 06 00 00 00 00 00 00 DF 31 06 00 00 00 00 00 00	
BF 5B	Application Internal Data Template	DF 01 02 00 00	

* Tag value changes with card usage

1.3 Test Card 03 - Mastercard, DI, English, Great Britain, GBP

A Dual Interface (Contact+Contactless) Mastercard card with an Issuer Country Code of Great Britain and Currency Code of GBP. Language supported is English.

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

1.3.1 Contact Interface: CVM List - Mastercard, AID A000000041010

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

1.3.2 Contact Interface: Application Tag data, AID A000000041010

Tag	Element name	Data	v2.x
50	Application Label	4D 41 53 54 45 52 43 41 52 44 - 'MASTERCARD'	

Tag	Element name	Data	v2.x
57	Track 2 Equivalent Data	51 01 08 00 00 00 00 09 D2 51 22 01 01 23 40 91 72 02 9F	
5A	Application Primary Account Number (PAN)	51 01 08 00 00 00 00 09	
5F 20	Cardholder Name	45 4C 41 56 4F 4E 20 44 43 43 2F 54 45 53 54 20 43 41 52 44 20 30 33 20 20 20 - 'ELAVON DCC/Test Card 03'	
5F 24	Application Expiration Date	25 12 31	
5F 25	Application Effective Date	xx xx xx *	
5F 28	Issuer Country Code	08 26 - GBR	
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 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	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	
94	Application File Locator (AFL)	08 02 04 01 18 01 01 00 20 01 01 00	

Tag	Element name	Data	v2.x
9F 07	Application Usage Control	FF 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 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	
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	89 DE CA D1 84 6A E6 71 17 7E 6A 97 29 73 12 58 2F F3 CD 71 BB FD 6E 84 89 88 F4 85 AB 0B 7D 0E 0D 90 14 E3 71 3C 32 B3 7E E2 C3 8B 9D 0F 9F CB 84 2A 6B 01 E0 3C E7 9F 82 B8 E2 41 F4 22 8D C8 5C F8 DF 6A 62 D2 5B 46 92 6E 95 FC B8 18 F8 82 B3 73 EB CE D0 40 DD F5 80 51 6A 38 D6 0C 04 7E 1C DB 5B 8A 6E 00 5C 1A 07 D8 72 8A B3 CF E4 BF	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	EE 72 E9 EA 23 86 51 2E DE FC 32 14 F1 8C 7E 96 7E 07 C5 C3 C6 7C A2 91 55 C3 36 3E E8 81 93 B0 1D 16 1B 49 94 C4 51 A5 62 97	
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	

Tag	Element name	Data	v2.x
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	
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	

Tag	Element name	Data	v2.x
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	
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	

Tag	Element name	Data	v2.x
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	
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

1.3.3 Contactless Interface: CVM List - Mastercard, AID A000000041010

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

1.3.4 Contactless Interface: Application Tag data, AID A000000041010

* Tag value changes with card usage

Tag	Element name	Data	v2.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 35 31 32 32 30 31 30	
57	Track 2 Equivalent Data	51 01 08 00 00 00 00 09 D2 51 22 01 01 23 40 91 72 02 9F	
5A	Application Primary Account Number (PAN)	51 01 08 00 00 00 00 09	
5F 24	Application Expiration Date	25 12 31	
5F 25	Application Effective Date	xx xx xx *	
5F 28	Issuer Country Code	08 26 - GBR	
5F 2D	Language Preference	65 6E - 'en' (English)	
5F 34	Application PAN Sequence Number	01	

Tag	Element name	Data	v2.x
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	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 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 NOT valid b6 - Domestic goods valid b5 - International goods NOT valid b4 - Domestic services valid b3 - International services NOT 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'	

Tag	Element name	Data	v2.x
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	
9F 46	ICC Public Key Certificate	32 5E DD DF E4 F2 9C 52 41 89 4F C9 C2 6E 06 97 1B D6 77 49 90 75 C7 9B 50 60 90 A1 30 16 BD C5 10 5E C0 E1 71 D4 8E DD F6 F7 4C 61 EE AC 7F D0 16 42 DF 97 72 2B D1 66 A6 2C EB 80 49 B1 B6 92 CA 45 C7 38 0A EC BE A6 B0 82 21 40 7F BA 7E FB 42 B8 DB 98 74 40 34 4C D8 0E 17 89 00 0E 59 50 AE DB BC 68 F9 64 EC 3E A7 64 63 22 B8 CB EB 7F	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	EE 72 E9 EA 23 86 51 2E DE FC 32 14 F1 8C 7E 96 7E 07 C5 C3 C6 7C A2 91 55 C3 36 3E E8 81 93 B0 1D 16 1B 49 94 C4 51 A5 62 97	
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]	59 2C	
9F 61	CVC3track2 [Mastercard]	8D F0	
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 51 22 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	

Tag	Element name	Data	v2.x
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	
DF 02	Security Limits Status (Contact) [M/Chip Advance]	00	

* Tag value changes with card usage

1.4 Test Card 04 - Mastercard, CO, Japanese/English, Japan, JPY

A contact-only Mastercard with an Issuer Country Code of Japan and Currency Code of Japanese Yen. Languages supported are Japanese and English.

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

1.4.1 Contact Interface: CVM List - Mastercard, AID A0000000041010

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

1.4.2 Contact Interface: Application Tag data, AID A0000000041010

Tag	Element name	Data	v2.x
50	Application Label	4D 41 53 54 45 52 43 41 52 44 - 'MASTERCARD'	
57	Track 2 Equivalent Data	51 20 79 00 00 00 00 00 D2 51 22 01 01 23 40 91 72 02 9F	

Tag	Element name	Data	v2.x
5A	Application Primary Account Number (PAN)	51 20 79 00 00 00 00 00	
5F 20	Cardholder Name	45 4C 41 56 4F 4E 20 44 43 43 2F 54 45 53 54 20 43 41 52 44 20 30 34 20 20 20 - 'ELAVON DCC/Test Card 04'	
5F 24	Application Expiration Date	25 12 31	
5F 25	Application Effective Date	xx xx xx *	
5F 28	Issuer Country Code	03 92 - JPN	
5F 2D	Language Preference	6A 61 65 6E - 'jpen' (Japanese, English)	
5F 30	Service Code	02 01	
5F 34	Application PAN Sequence Number	01	
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 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	
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	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	

Tag	Element name	Data	v2.x
9F 07	Application Usage Control	FF 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 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	
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	03 92 - JPY	
9F 44	Application Currency Exponent	00	
9F 46	ICC Public Key Certificate	21 72 06 D6 45 6C 11 47 8D A7 14 3C 2A 51 78 DD EC 18 CA 91 77 45 F6 AB DE 59 04 75 38 42 27 4B 9F C6 47 DF 78 CC 70 05 72 7D D7 95 E4 35 80 EC 5A 75 EC 81 F1 99 E2 64 75 14 4D C9 05 05 C1 8F F5 0F DA FC 94 B9 19 45 40 F6 26 EB FA 45 C3 F1 3A 06 6B 4B D5 1D 93 AD 6D BF 2A 9A 41 9F 78 A2 EB EE A7 F3 EF 38 83 D3 47 60 0F 8F 1C 35 25 06	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	3D DE C9 AD 0D 5A AB 60 87 CE 46 9C 7E 77 21 9D DC 44 3A 29 6D 24 E9 72 F5 B6 B8 13 D6 DC 3C 5F B2 87 15 D1 D4 42 2B B6 FA 1F	
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	

Tag	Element name	Data	v2.x
9F 6E	Third Party Data [Mastercard]	03 92 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 02 00 00 00 00 00 00 00 00	
C7	CDOL1 Related Data Length [Mastercard]	2B	
C8	CRM Country Code [Mastercard]	03 92 - JPN	
C9	CRM Currency Code [M/Chip4]	03 92 - JPY	
CA	Lower Cumulative Offline Transaction Amount [M/Chip]	00 00 00 00 00 00	
CB	Upper Cumulative Offline Transaction Amount [M/Chip]	00 00 00 00 00 00	
D1	Currency Conversion Table [M/Chip]	03 92 00 01 00 03 92 00 01 00 03 92 00 01 00 03 92 00 01 00 03 92 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]	CC 00	
D6	Default ARPC Response Code [M/Chip4]	00 12	
DF 02	Security Limits Status [Mastercard]	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				