



Mastercard BIN '2' EMV™ Test Card Set

Version 1.20

November 2018

Powered by **B2**»

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Revision History

Version	Date	Updated By	Revisions
1.00	August 4, 2016	B2PS	Initial release - Card Set has 2 cards
1.10	November 1, 2018	B2PS	TC01, TC02 - corrected expiry dates Updated text with current logo and "Mastercard"
1.20	November 30, 2018	B2PS	TC01, TC02 - corrected AIDs in profile table

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CAUTION

Multiple consecutive incorrect PIN entry attempts may result in the card being blocked. This is known as being 'PIN Blocked'.

If this occurs, it will no longer be possible to enter an Offline PIN which will cause all future transactions to be declined.

***** It is not possible to unblock a 'PIN Blocked' card *****

Chapter 1 - UL Mastercard BIN '2' Test Card Set Profiles

This MasterCard BIN 2 Test Card Set contains 2 cards, each of which is from the following card brand:



	Test Card 01	Test Card 02
Brand	Mastercard	Mastercard
Type	Credit	Credit
Description.	222360 BIN	DI, 222360 BIN
IIN		
AID	A0000000041010	A0000000041010
PAN	2223 6000 8902 0329	2223 6000 8960 0203
Expiry Date	12/2022	12/2025
Service Code	201	201
Interface	Contact, MSR	Contact, Contactless, MSR
CVM	See card definition	See card definition
Approval Amount	\$20	\$20
Issuer Country Code	840 - USA	840 - USA
Application Currency Code	840 - USD	840 - USD
Language	'en' – English	'en' – English
Card Version	v5.0	v5.0

1.1 Test Card 01 – Mastercard, BIN '2', Credit, English, USA, USD

A Mastercard (BIN '2') credit card with BIN range '222360', Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

1.1.1 Cardholder Verification Method List

Cardholder Verification Method List ('4201440341035E031F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Next CVM
2	Offline PIN	Terminal supports CVM type	Next CVM
3	Offline Plaintext PIN	Terminal supports CVM type	Next CVM
4	Signature (paper)	Terminal supports CVM type	Next CVM
5	No CVM required	Terminal supports CVM type	Fail

1.1.2 Application Tag data (Contact Interface, online)

* Tag value changes with card usage

Tag	Element name	Data	v5.0
50	Application Label	4D 41 53 54 45 52 43 41 52 44 - 'MASTERCARD'	
57	Track 2 Equivalent Data	22 23 60 00 89 02 03 29 D2 21 22 01 01 23 40 91 72 02 9F	
5A	Application Primary Account Number (PAN)	22 23 60 00 89 02 03 29	
5F 20	Cardholder Name	4D 43 20 42 49 4E 32 2F 54 65 73 74 20 43 61 72 64 20 30 31 20 20 20 20 20 20 - 'MC BIN2/Test Card 01'	
5F 24	Application Expiration Date	22 12 31	
5F 25	Application Effective Date	16 07 01	
5F 28	Issuer Country Code	08 40 - USA	
5F 2D	Language Preference	65 6E - 'en' (English)	
5F 30	Service Code	02 01	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile [M/Chip, PayPass]	39 00	
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 35 01 9F 45 02 9F 4C 08 9F 34 03	
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F 4C 08	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 42 01 44 03 41 03 5E 03 1F 03	
8F	Certification Authority Public Key Index	F1	
90	Issuer Public Key Certificate	91 61 44 FF F4 9B 6F BA E7 6F A4 C2 81 74 CB B9 E4 C3 13 1C 55 F6 1D 58 58 26 11 60 DC 0B F3 D6 80 D2 F9 16 FB D3 72 5C E5 B4 6B AA D0 CE 0B C9 7F 6E 1F 46 55 0E A0 E6 BE 3A F3 98 36 E1 4F 07 13 A1 EA 0A 3C 97 2C 08 50 74 FE EF F3 03 B3 64 13 D3 0B D2 CE 5B B8 1B 7A BF 3D 74 7D 1B 93 9A 9F 38 81 D5	

Tag	Element name	Data	v5.0
		29 22 0F 28 43 50 D1 C0 F5 F1 B1 36 6B FB 46 7E 8B 35 BD 74 0B A8 06 E2 18 C8 58 A4 7D AE 27 23 32 A8 1E 65 FD 60 2E 6B AC 48 F6 C9 37 44 C4 28 43 6C 5A DF 30 A8 FF 28 4A 4C 1E 01 D4 5E E6 C5 6D AD 30 C1 E7 91 15 61 B4 44 00 42	
94	Application File Locator (AFL)	08 02 04 01 18 01 01 00 20 01 01 00	
9F 07	Application Usage Control	FF 00	
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 xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	4D 61 73 74 65 72 43 61 72 64 - 'MasterCard'	
9F 14	Lower Consecutive Offline Limit	03	
9F 17	Personal Identification Number (PIN) Try Counter	09	
9F 1F	Track 1 Discretionary Data	30 31 32 33 34 30 39 31 37 32 30 30 30 30 30 30 30 30 30 30 30 30 30 30	
9F 23	Upper Consecutive Offline Limit	07	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 42	Application Currency Code	08 40 - USD	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	17 B5 D0 CD C0 12 EB 03 E3 49 C3 82 4B 17 E8 E5 97 B7 F0 97 60 32 E8 AF E6 7C 32 EC 2C CD DF 09 B3 C9 0C 9B 25 91 43 C4 1A AF B5 BF DC A1 2F 48 8D D2 77 01 58 5A 8D B1 FD F7 A7 52 AC 01 7F 1B 80 3E 49 35 88 62 35 D0 93 58 D2 63 E2 FC 60 C4 84 0E C0 72 58 D6 5B 9C 88 C5 3A 6A 5E 03 C5 99 F4 EA 02 FB 46 B4 5B 83 2E A3 FC 3A 12 7A 3A 9C 56 E2 7B 11 A3 14 68 78 81 6E 92 DC 89 EA 2F A2	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	FD 56 44 B8 47 DF 3B 0B F7 C6 51 77 A0 25 AC 37 01 6D 19 61 C5 8A 36 36 33 13	
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04	
9F 4A	Static Data Authentication Tag List	82	
9F 4B	Signed Dynamic Application Data	5F BD 96 C3 E4 BC DD 8B 3D 3E 98 11 99 99 E1 25 10 4D 56 DB 08 A6 FD E4 D1 12 31 72 ED 30 F8 23 2F 55 30 B3 E9 5B 28 BB 53 0D 2B 50 87 4E 26 8B E3 44 53 C3 A9 CE 19 CF C0 0E 5F 5B 0C AE BA 36 A7 B2 97 EA 09 B7 A7 CC 51 71 26 A3 86 FC 0D 6C 8A EB E3 77 4C AF 3F 98 66 19	

Tag	Element name	Data	v5.0
		9F 8A 75 F8 B0 64 11 C2 79 86 C8 2F 03 AC C5 E9 91 CE A0 CC 70 5B	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06	
9F 6E	Third Party Data [MasterCard]	08 40 00 00 30 30 00	
9F 7E	Application Life Cycle Data [MasterCard]	03 10 0C 12 00 09 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 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 01 00 00 00 00 00 00 00 00	
C7	CDOL1 Related Data Length [MasterCard]	2B	
C8	CRM Country Code [MasterCard]	08 40 - USA	
C9	CRM Currency Code [M/Chip4]	08 40 - USD	
CA	Lower Cumulative Offline Transaction Amount [M/Chip]	00 00 00 02 00 00	
CB	Upper Cumulative Offline Transaction Amount [M/Chip]	00 00 00 04 00 00	
CD	Card Issuer Action Code - Default [PayPass M/Chip]	00 58 00	
CE	Card Issuer Action Code - Online [PayPass M/Chip]	00 F8 00	
CF	Card Issuer Action Code - Denial [PayPass M/Chip]	00 00 00	
D1	Currency Conversion Table [M/Chip]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00	
D3	Additional Check Table [MasterCard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF	
D5	Application Control [M/Chip]	CC 00	
D6	Default ARPC Response Code [M/Chip4]	00 12	
D7	Application Control [PayPass M/Chip]	40 01 40	
DF 02	Security Limits Status [MasterCard]	00	

1.2 Test Card 02 – Mastercard, DI, BIN '2', Credit, English, USA, USD

A Dual Interface (Contact / Contactless) Mastercard credit card with BIN range '222360', Issuer Country Code of 'USA' and Currency Code of 'USD'.

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

1.2.1 Cardholder Verification Method List

Cardholder Verification Method List ('4201440341035E031F03')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Unattended Cash	Next CVM
2	Offline PIN	Terminal supports CVM type	Next CVM
3	Offline Plaintext PIN	Terminal supports CVM type	Next CVM
4	Signature (paper)	Terminal supports CVM type	Next CVM
5	No CVM required	Terminal supports CVM type	Fail

1.2.2 Application Tag data (Contact Interface, online)

* Tag value changes with card usage

Tag	Element name	Data	v5.0
50	Application Label	4D 41 53 54 45 52 43 41 52 44 -	
		'MASTERCARD'	
57	Track 2 Equivalent Data	22 23 60 00 89 60 02 03 D2 51	
		22 01 01 23 40 91 72 02 9F	
5A	Application Primary Account Number (PAN)	22 23 60 00 89 60 02 03	
5F 20	Cardholder Name	4D 43 20 42 49 4E 32 2F 54 65	
		73 74 20 43 61 72 64 20 30 32	
		20 20 20 20 20 20 - 'MC BIN2/Test	
		Card 02	
5F 24	Application Expiration Date	25 12 31	
5F 25	Application Effective Date	16 07 01	
5F 28	Issuer Country Code	08 40 - USA	
5F 2D	Language Preference	65 6E - 'en' (English)	
5F 30	Service Code	02 01	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile [M/Chip, PayPass]	39 00	
84	Dedicated File (DF) Name	A0 00 00 00 04 10 10	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95	
		05 5F 2A 02 9A 03 9C 01 9F 37	
		04 9F 35 01 9F 45 02 9F 4C 08	
		9F 34 03	
8D	Card Risk Management Data Object List 2 (CDOL2)	91 0A 8A 02 95 05 9F 37 04 9F	
		4C 08	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 42 01	
		44 03 41 03 5E 03 1F 03	
8F	Certification Authority Public Key Index	F1	
90	Issuer Public Key Certificate	91 61 44 FF F4 9B 6F BA E7 6F	
		A4 C2 81 74 CB B9 E4 C3 13 1C	
		55 F6 1D 58 58 26 11 60 DC 0B	
		F3 D6 80 D2 F9 16 FB D3 72 5C	
		E5 B4 6B AA D0 CE 0B C9 7F 6E	
		1F 46 55 0E A0 E6 BE 3A F3 98	
		36 E1 4F 07 13 A1 EA 0A 3C 97	
		2C 08 50 74 FE EF F3 03 B3 64	
		13 D3 0B D2 CE 5B B8 1B 7A BF	
		3D 74 7D 1B 93 9A 9F 38 81 D5	

Tag	Element name	Data	v5.0
		29 22 0F 28 43 50 D1 C0 F5 F1 B1 36 6B FB 46 7E 8B 35 BD 74 0B A8 06 E2 18 C8 58 A4 7D AE 27 23 32 A8 1E 65 FD 60 2E 6B AC 48 F6 C9 37 44 C4 28 43 6C 5A DF 30 A8 FF 28 4A 4C 1E 01 D4 5E E6 C5 6D AD 30 C1 E7 91 15 61 B4 44 00 42	
94	Application File Locator (AFL)	08 02 04 01 18 01 01 00 20 01 01 00	
9F 07	Application Usage Control	FF 00	
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 xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	4D 61 73 74 65 72 43 61 72 64 - 'MasterCard'	
9F 14	Lower Consecutive Offline Limit	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 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 42	Application Currency Code	08 40 - USD	
9F 44	Application Currency Exponent	02	
9F 46	ICC Public Key Certificate	98 7B 20 73 71 68 09 78 EB 40 63 19 12 A7 9A A3 D0 3B A4 F7 8D 7A 29 ED CA 1B 8D 1C A9 AB D9 CE F2 BA FA 40 11 D1 ED EF 4D 23 99 D8 6E 43 96 64 37 07 10 95 A8 A2 78 C5 90 88 36 AE B6 C0 BB C4 30 8E 12 97 A9 AD 0C CA 80 78 D4 AC 41 41 89 FB 8E 78 E5 63 46 63 66 25 A1 FA 79 D6 92 8B 66 75 D1 42 45 B0 30 F3 46 1A 94 72 74 05 29 B8 D0 E4 D1 44 AD 34 84 FB BC A1 7C 01 19 4D 20 49 DC A4	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	F3 EE 16 3D CC C0 DB 5C 0B 82 3D BD 09 22 DE 36 3E DC 22 89 45 F7 40 4F D3 C1	
9F 49	Dynamic Data Authentication Data Object List (DDOL)	9F 37 04	
9F 4A	Static Data Authentication Tag List	82	
9F 4B	Signed Dynamic Application Data	28 7C B1 CC 1E A1 81 EC 79 75 01 06 73 FD D8 43 B1 22 3D 6B 15 58 25 9E 7F 39 0C B2 35 B4 87 20 D6 1D 37 CA E7 B5 5F 77 A6 41 98 06 52 98 33 16 7B E6 FE 21 A7 17 9B 7C 12 7D 35 83 A8 98 E5 92 E6 A6 14 8E A9 F5 04 BA 78 0D B1 F2 F2 97 0A E1 A6 95 E3 2B 53 A3 A8 76 63 64	

Tag	Element name	Data	v5.0
		DF 10 A8 CF E6 8E E0 21 51 BC 24 89 B0 6D 8A 2E A4 12 57 89 44 8B	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9F 27 01 9F 02 06 5F 2A 02 9A 03 9F 36 02 9F 52 06	
9F 6E	Third Party Data [MasterCard]	08 40 00 00 30 30 00	
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 06 00 00 00 00 00 00 00 00	
C7	CDOL1 Related Data Length [MasterCard]	2B	
C8	CRM Country Code [MasterCard]	08 40 - USA	
C9	CRM Currency Code [M/Chip4]	08 40 - USD	
CA	Lower Cumulative Offline Transaction Amount [M/Chip]	00 00 00 00 00 00	
CB	Upper Cumulative Offline Transaction Amount [M/Chip]	00 00 00 00 00 00	
CD	Card Issuer Action Code - Default [PayPass M/Chip]	00 00 00	
CE	Card Issuer Action Code - Online [PayPass M/Chip]	FF FF FF	
CF	Card Issuer Action Code - Denial [PayPass M/Chip]	00 00 00	
D1	Currency Conversion Table [M/Chip]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00	
D3	Additional Check Table [MasterCard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF	
D5	Application Control [M/Chip]	CC 00	
D6	Default ARPC Response Code [M/Chip4]	00 12	
D7	Application Control [PayPass M/Chip]	00 00 80	
DF 02	Security Limits Status [MasterCard]	00	

1.2.3 Application Tag data (Contactless Interface, online)

* Tag value changes with card usage

Tag	Element name	Data	v5.0
50	Application Label	4D 41 53 54 45 52 43 41 52 44	
56	Track 1 Equivalent Data [MasterCard]	42 32 32 32 33 36 30 30 30 38 39 36 30 30 32 30 33 5E 20 2F 5E 32 35 31 32 32 30 31 30	
57	Track 2 Equivalent Data	22 23 60 00 89 60 02 03 D2 51 22 01 01 23 40 91 72 02 9F	
5A	Application Primary Account Number (PAN)	22 23 60 00 89 60 02 03	
5F 24	Application Expiration Date	25 12 31	
5F 25	Application Effective Date	16 07 01	
5F 28	Issuer Country Code	08 40 - USA	
5F 2D	Language Preference	65 6E - 'en' (English)	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile [M/Chip, PayPass]	19 80	
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 03 5E 03 1F 03	
8F	Certification Authority Public Key Index	F1	
90	Issuer Public Key Certificate	91 61 44 FF F4 9B 6F BA E7 6F A4 C2 81 74 CB B9 E4 C3 13 1C 55 F6 1D 58 58 26 11 60 DC 0B F3 D6 80 D2 F9 16 FB D3 72 5C E5 B4 6B AA D0 CE 0B C9 7F 6E 1F 46 55 0E A0 E6 BE 3A F3 98 36 E1 4F 07 13 A1 EA 0A 3C 97 2C 08 50 74 FE EF F3 03 B3 64 13 D3 0B D2 CE 5B B8 1B 7A BF 3D 74 7D 1B 93 9A 9F 38 81 D5 29 22 0F 28 43 50 D1 C0 F5 F1 B1 36 6B FB 46 7E 8B 35 BD 74 0B A8 06 E2 18 C8 58 A4 7D AE 27 23 32 A8 1E 65 FD 60 2E 6B AC 48 F6 C9 37 44 C4 28 43 6C 5A DF 30 A8 FF 28 4A 4C 1E 01 D4 5E E6 C5 6D AD 30 C1 E7 91 15 61 B4 44 00 42	
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	
9F 08	Application Version Number	00 02	
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	F4 70 80 80 00	
9F 10	Issuer Application Data [M/Chip 4]	xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	4D 61 73 74 65 72 43 61 72 64 - 'MasterCard'	
9F 14	Lower Consecutive Offline Limit	00	
9F 17	Personal Identification Number (PIN) Try Counter	09	
9F 23	Upper Consecutive Offline Limit	00	
9F 27	Cryptogram Information Data (CID)	80	

Tag	Element name	Data	v5.0
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 46	ICC Public Key Certificate	2A C4 B8 C9 A7 AE 0D D8 51 92 B5 87 08 52 5F BD 9A CD C5 84 26 93 AF 58 43 93 8B F5 17 97 65 6B D0 75 B7 5D 8D 13 68 70 30 35 FC 60 8B BA 12 F5 FE B0 FD C1 C8 07 11 74 FF 0E D8 96 3A 79 D3 C4 A1 66 F1 7C B0 47 8D CD F3 E7 BE 89 6E 8B F4 A2 BF 1C 97 71 06 51 86 E8 C5 08 9F F9 35 7A 6E B5 2F 02 55 42 64 FE A1 1E C4 72 C7 10 43 15 C1 DF 6D DF 55 88 26 5D C0 A3 D1 09 67 B1 3D 1A 1F 7B	
9F 47	ICC Public Key Exponent	03	
9F 48	ICC Public Key Remainder	F3 EE 16 3D CC C0 DB 5C 0B 82 3D BD 09 22 DE 36 3E DC 22 89 45 F7 40 4F D3 C1	
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 60	CVC3track1 [MasterCard]	77 77	
9F 61	CVC3track2 [MasterCard]	33 33	
9F 62	PCVC3track1 [MasterCard]	00 00 00 38 00 00	
9F 63	PUNATCtrack1 [MasterCard]	00 00 00 00 E0 E0	
9F 64	NATCtrack1 [MasterCard]	03	
9F 65	PCVC3track2 [MasterCard]	00 0E	
9F 66	PUNATCtrack2 [MasterCard]	0E 70	
9F 67	NATCtrack2 [MasterCard]	03	
9F 6B	Track 2 Equivalent Data [MasterCard]	22 23 60 00 89 60 02 03 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 40 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 04 00 00 00 00 00 00 00 00	
C7	CDOL1 Related Data Length [MasterCard]	2B	
C8	CRM Country Code [MasterCard]	08 40 - USA	
C9	CRM Currency Code [M/Chip4]	08 40 - USD	
CA	Lower Cumulative Offline Transaction Amount [M/Chip]	00 00 00 00 00 00	
CB	Upper Cumulative Offline Transaction Amount [M/Chip]	00 00 00 00 00 00	
CD	Card Issuer Action Code - Default [PayPass M/Chip]	00 00 00	
CE	Card Issuer Action Code - Online [PayPass M/Chip]	FF FF FF	
CF	Card Issuer Action Code - Denial [PayPass M/Chip]	00 00 00	

Tag	Element name	Data	v5.0
D1	Currency Conversion Table [M/Chip]	08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00 08 40 00 00 00	
D3	Additional Check Table [MasterCard]	00 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF	
D5	Application Control [M/Chip]	CC 00	
D6	Default ARPC Response Code [M/Chip4]	00 12	
D7	Application Control [PayPass M/Chip]	00 00 80	
DF 02	Security Limits Status [MasterCard]	00	

Chapter 2 - ASCII Character Conversion Chart

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