



UnionPay 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 - UnionPay EMV™ Test Card Set Profiles

This UnionPay EMV™ Test Card Set contains 4 EMV test cards.



	Test Card FT05	Test Card FT21	Test Card FT25
Brand	UnionPay	UnionPay	UnionPay
Description (Card - Types)	Credit	Debit	Credit
AID list	A000000333010103	A000000333010101	A000000333010102
PAN list	6210 9480 0000 0052	6210 9480 0000 0219	6210 9480 0000 0250
Expiry Date	10/2030	10/2030	10/2030e
Service Code	220	220	220
Interface	Contact, MSR	Contact, MSR	Contact, MSR
CVM	See card definition	See card definition	See card definition
Approval Amount	\$10.00	\$10.00	\$10.00
Issuer Country Code	156 - CHN	156 - CHN	156 - CHN
Application Currency Code	156 - CNY	156 - CNY	156 - CNY
Language	'cn' - Chinese	'zhen' - Chinese, English	'cn' - Chinese
Card Version	v9.1	v9.1	v9.1



Test Card FT26	
Brand	UnionPay
Description (Card - Types)	Credit / Debit - U.S. use only
AID list	A000000333010101 A000000333010108
PAN list	6210 9480 0000 0268
Expiry Date	10/2030e
Service Code	220
Interface	Contact, MSR
CVM	See card definition
Approval Amount	\$10.00
Issuer Country Code	156 - CHN 840 - USA
Application Currency Code	156 - CNY 840 - USD
Language	'cn' - Chinese
Card Version	v9.1



1.1 Test Card FT05 - UnionPay, CO, 1-AID, English, CHN, CNY

A contact-only, single-AID(UnionPay) credit card with an Issuer Country Code of 'China' and Currency Code of 'CNY'. Languages supported include Chinese.

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

1.1.1 Contact Interface: CVM List - UnionPay, AID A000000333010103, EMV

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

1.1.2 Contact Interface: Application Tag data, AID A000000333010103

* Tag value changes with card usage

Tag	Element name	Data	v9.1
50	Application Label	D2 F8 C1 AA 36 32 B2 E2 CA D4 49 43 BF A8 - None-ASCII chars	
57	Track 2 Equivalent Data	62 10 94 80 00 00 00 52 D3 01 02 20 00 00 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	62 10 94 80 00 00 00 52	
5F 20	Cardholder Name	55 49 43 43 46 54 30 35 - 'UICCF05'	
5F 24	Application Expiration Date	30 10 31	
5F 25	Application Effective Date	05 10 31	
5F 28	Issuer Country Code	01 56 - CHN	
5F 2D	Language Preference	63 6E - 'cn' (Chinese)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile [UICS]	7D 00	
84	Dedicated File (DF) Name	A0 00 00 03 33 01 01 03	
87	Application Priority Indicator	03	
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 21 03 9F 4E 14 9F 34 03	
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 9F 21 03 9B 02	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 5E 03 42 03 1F 00	
8F	Certification Authority Public Key Index	09	



Tag	Element name	Data	v9.1
90	Issuer Public Key Certificate	94 01 D7 4D AE 33 CF 02 88 45 A9 F4 27 7C 19 CA 00 3C 8A 8E 95 A0 0C F6 A8 8C C6 4F 10 DB FC 5E 90 DE E9 65 22 4C 94 5E BB BA 12 EF 3D 0A 64 8F 99 92 E1 D6 53 F9 11 BA BB E1 40 6E 3B 97 EE A4 68 C1 13 45 4D 78 C8 A5 65 33 9E 1E E1 C6 7B 84 7E 58 79 3C 3E C8 F5 42 01 16 00 A5 44 35 00 4B C5 7C 82 01 F0 18 0F 6A 45 1B 67 24 05 DE 3F 31 2A 44 D2 7B B3 59 46 6D 96 31 9B F7 35 40 2C D3 8A 36 61 E9 AE 2D 3F C4 F1 A4 B2 9D 22 60 8A 75 2A 31 FE 63 60 7D 85 13 EF 4D 46 95 EA 3E 76 36 5C 06 66 0F CA 44 FA BC D0 55 03 E1 C2 D7 D0 4B	
92	Issuer Public Key Remainder	98 76 E2 7A 8C 9D F0 05 6B D6 27 03 67 EB 29 94 B5 D3 38 DD B5 44 36 81 E1 27 F8 6F 4D FA F3 33 7C BB EC B1	
93	Signed Static Application Data	06 48 0E D1 02 C9 53 ED 70 7A 34 D7 1C C4 6D 3E 7C 26 13 2D 93 DF 8B DC 91 86 2C 14 5E FC DB CF E6 89 6E E5 82 AD 3E E6 F4 32 88 8A F1 BE 36 8C 81 01 67 9A 8B 8E 3E 00 46 47 CB E9 B3 25 A2 3F EC 47 36 31 4F 63 8D FD 1C 4F F4 00 A1 2E 3D B1 DC B2 B1 13 67 D0 86 DA 4D 6F 5E FF 79 3C D1 78 23 1D 58 FE 3F 01 32 C6 68 37 E5 70 A3 D8 C1 41 35 7C 22 45 8F 7B 3B 61 68 A1 F9 27 A9 FE 02 DA 05 1A CC 6C 45 63 CD 49 95 FD BB D0 99 BC F8 D2 B2 43 E0 51 F8 CD AD 2F F1 65 12 86 7E 4D 30 EC 26 54 82 0F 3B E8 38 CC 8D 09 FD A8 5E 6E B9 D6	
94	Application File Locator (AFL)	08 01 03 00 10 01 05 01 20 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 20	
9F 0D	Issuer Action Code - Default	FC 60 04 A8 00	
9F 0E	Issuer Action Code - Denial	00 10 00 00 00	
9F 0F	Issuer Action Code - Online	FC 68 04 F8 00	
9F 10	Issuer Application Data [UICS]	xx 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	D2 F8 C1 AA 36 32 B2 E2 CA D4 49 43 BF A8 - None-ASCII chars	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 14	Lower Consecutive Offline Limit	7F	
9F 1F	Track 1 Discretionary Data	32 30 31 35 30 36 32 35 31 30 35 33 30 38	
9F 23	Upper Consecutive Offline Limit	FF	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 1A 02	



Tag	Element name	Data	v9.1
9F 42	Application Currency Code	01 56 - CNY	
9F 46	ICC Public Key Certificate	59 2D 77 94 DB 80 57 1E 76 F4 A3 7E 00 1E 25 0F 0D AD 6A EF B1 C5 D8 0C 41 0E 5B D8 0D E9 E5 B8 9E 6C CB 67 D7 AD 02 3E 50 B8 30 83 59 81 D1 02 58 B3 16 6E 16 1D 45 D4 3B 13 75 69 81 C2 B1 3B 1F 8B 46 59 0C 9B FB 8D 3F EE B9 FD BB 1A 44 AF 67 3A D7 C4 AD 14 31 6B DC 4A 66 EB E6 E5 9A EA 57 FF 7C 2B ED A9 DC C9 6C 1C D9 B0 8D 02 46 39 9E 1D 2C 2E D4 99 0C 8E F9 08 F4 B1 C3 3A 02 45 E5 66 7E 6E 1D 56 49 7D 0F D1 83 67 19 EB 15 B0 4F D6 03 83 7E 0D 0D EF 92 1E 91 EB C5 56 4E 15 A5 E6 A3 B3 C7 4B F4 B0 5C 1F 2D F4 36 B4 07 21	
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	F9 F0 58 5F 51 FC 50 CA 1A 6F 46 30 3E 70 DB 5B 43 6B 59 A6 96 FE 1F 53 A0 C8 05 7D 0A A5 6A A0 2D 2F 19 33 95 A7 36 3A 3A D7	
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	62 40 BF 49 8E 33 11 58 D6 CE 9B 84 EB CA E4 B4 C8 14 D9 D5 1A 50 10 A7 41 9B 02 E2 B2 59 C8 C4 5D 9F E3 11 25 E5 4D 90 87 B6 87 A4 BA 11 2B D3 C2 6C 7E 30 5A 78 B3 C2 27 1E 52 7E DB 3E 31 C4 91 46 D7 2D D7 A0 16 40 E7 F3 05 22 FD 5A DD 6D F1 FB EA 65 10 13 AC F9 F3 52 5E 07 2B 1F 41 69 C4 F0 AA BD 01 2D CF CB 09 F7 BC 0F EA F7 3A 69 EC DC 32 DA 73 FD 43 DC 67 98 E7 69 2F 88 49 08 9D AD 3C 19 94 DB EF C3 1F AF 39 41 45 82 29 11 B3 BB 40 9A 39 36 AE FA A6 08 49 24 37 B0 21 DE 2C D8 27 B0 FB 16 F5 57 03 8B F6 69 4C AA 1B DF	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9A 03 9F 21 03 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9F 4E 14 9C 01 9F 36 02	
9F 51	Application Currency Code [UICS]	01 56 - CNY	
9F 52	Application Default Action [UICS]	00 00	
9F 53	Consecutive Transaction Limit (International) [UICS]	00	
9F 54	Cumulative Total Transaction Amount Limit [UICS]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [UICS]	80	
9F 57	Issuer Country Code [UICS]	01 56 - CHN	
9F 58	Lower Consecutive Offline Limit (Card Check) [UICS]	00	
9F 59	Upper Consecutive Offline Limit (Card Check) [UICS]	00	



Tag	Element name	Data	v9.1
9F 5C	Cumulative Total Transaction Amount Upper Limit [UICS]	00 00 00 00 00 00	
9F 61	Cardholder ID Number [UICS]	31 31 30 31 30 31 31 39 38 36 30 36 32 30 30 30 31 30	
9F 62	Cardholder ID Type [UICS]	00	
9F 72	Consecutive Transaction Limit (International-Country) [UICS]	00	
9F 75	Cumulative Total Transaction Amount Limit - Dual Currency [UICS]	00 00 00 00 00 00	

1.1.3 Contact Interface: CVM List - UnionPay, AID A00000333010103, Low-Value

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

1.1.4 Contact Interface: Application Tag data, AID A00000333010103

* Tag value changes with card usage

Tag	Element name	Data	v9.1
50	Application Label	D2 F8 C1 AA 36 32 B2 E2 CA D4 49 43 BF A8 - None-ASCII chars	
57	Track 2 Equivalent Data	62 10 94 80 00 00 00 52 D3 01 02 20 00 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	62 10 94 80 00 00 00 52	
5F 20	Cardholder Name	55 49 43 43 46 54 30 35 - 'UICCF05'	
5F 24	Application Expiration Date	30 10 31	
5F 25	Application Effective Date	05 10 31	
5F 28	Issuer Country Code	01 56 - CHN	
5F 2D	Language Preference	63 6E - 'cn' (Chinese)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile [UICS]	7D 00	
84	Dedicated File (DF) Name	A0 00 00 03 33 01 01 03	
87	Application Priority Indicator	03	
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 21 03 9F 4E 14 9F 34 03	
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 9F 21 03 9B 02	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 5E 03 42 03 1F 00	
8F	Certification Authority Public Key Index	09	



Tag	Element name	Data	v9.1
90	Issuer Public Key Certificate	94 01 D7 4D AE 33 CF 02 88 45 A9 F4 27 7C 19 CA 00 3C 8A 8E 95 A0 0C F6 A8 8C C6 4F 10 DB FC 5E 90 DE E9 65 22 4C 94 5E BB BA 12 EF 3D 0A 64 8F 99 92 E1 D6 53 F9 11 BA BB E1 40 6E 3B 97 EE A4 68 C1 13 45 4D 78 C8 A5 65 33 9E 1E E1 C6 7B 84 7E 58 79 3C 3E C8 F5 42 01 16 00 A5 44 35 00 4B C5 7C 82 01 F0 18 0F 6A 45 1B 67 24 05 DE 3F 31 2A 44 D2 7B B3 59 46 6D 96 31 9B F7 35 40 2C D3 8A 36 61 E9 AE 2D 3F C4 F1 A4 B2 9D 22 60 8A 75 2A 31 FE 63 60 7D 85 13 EF 4D 46 95 EA 3E 76 36 5C 06 66 0F CA 44 FA BC D0 55 03 E1 C2 D7 D0 4B	
92	Issuer Public Key Remainder	98 76 E2 7A 8C 9D F0 05 6B D6 27 03 67 EB 29 94 B5 D3 38 DD B5 44 36 81 E1 27 F8 6F 4D FA F3 33 7C BB EC B1	
93	Signed Static Application Data	06 48 0E D1 02 C9 53 ED 70 7A 34 D7 1C C4 6D 3E 7C 26 13 2D 93 DF 8B DC 91 86 2C 14 5E FC DB CF E6 89 6E E5 82 AD 3E E6 F4 32 88 8A F1 BE 36 8C 81 01 67 9A 8B 8E 3E 00 46 47 CB E9 B3 25 A2 3F EC 47 36 31 4F 63 8D FD 1C 4F F4 00 A1 2E 3D B1 DC B2 B1 13 67 D0 86 DA 4D 6F 5E FF 79 3C D1 78 23 1D 58 FE 3F 01 32 C6 68 37 E5 70 A3 D8 C1 41 35 7C 22 45 8F 7B 3B 61 68 A1 F9 27 A9 FE 02 DA 05 1A CC 6C 45 63 CD 49 95 FD BB D0 99 BC F8 D2 B2 43 E0 51 F8 CD AD 2F F1 65 12 86 7E 4D 30 EC 26 54 82 0F 3B E8 38 CC 8D 09 FD A8 5E 6E B9 D6	
94	Application File Locator (AFL)	08 01 03 00 10 01 05 01 20 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 20	
9F 0D	Issuer Action Code - Default	FC 60 04 A8 00	
9F 0E	Issuer Action Code - Denial	00 10 00 00 00	
9F 0F	Issuer Action Code - Online	FC 68 04 F8 00	
9F 10	Issuer Application Data [UICS]	xx 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	D2 F8 C1 AA 36 32 B2 E2 CA D4 49 43 BF A8 - None-ASCII chars	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 14	Lower Consecutive Offline Limit	7F	
9F 1F	Track 1 Discretionary Data	32 30 31 35 30 36 32 35 31 30 35 33 30 38	
9F 23	Upper Consecutive Offline Limit	FF	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 1A 02	



Tag	Element name	Data	v9.1
9F 42	Application Currency Code	01 56 - CNY	
9F 46	ICC Public Key Certificate	59 2D 77 94 DB 80 57 1E 76 F4 A3 7E 00 1E 25 0F 0D AD 6A EF B1 C5 D8 0C 41 0E 5B D8 0D E9 E5 B8 9E 6C CB 67 D7 AD 02 3E 50 B8 30 83 59 81 D1 02 58 B3 16 6E 16 1D 45 D4 3B 13 75 69 81 C2 B1 3B 1F 8B 46 59 0C 9B FB 8D 3F EE B9 FD BB 1A 44 AF 67 3A D7 C4 AD 14 31 6B DC 4A 66 EB E6 E5 9A EA 57 FF 7C 2B ED A9 DC C9 6C 1C D9 B0 8D 02 46 39 9E 1D 2C 2E D4 99 0C 8E F9 08 F4 B1 C3 3A 02 45 E5 66 7E 6E 1D 56 49 7D 0F D1 83 67 19 EB 15 B0 4F D6 03 83 7E 0D 0D EF 92 1E 91 EB C5 56 4E 15 A5 E6 A3 B3 C7 4B F4 B0 5C 1F 2D F4 36 B4 07 21	
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	F9 F0 58 5F 51 FC 50 CA 1A 6F 46 30 3E 70 DB 5B 43 6B 59 A6 96 FE 1F 53 A0 C8 05 7D 0A A5 6A A0 2D 2F 19 33 95 A7 36 3A 3A D7	
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	97 6A 20 0E A0 58 EB 86 0E 97 06 57 AD F7 B9 C4 2F E8 68 37 46 44 B0 D9 D8 1E AD 0A 97 5D A9 68 83 AA 06 65 D8 13 4D 33 6F 2F 06 2F 79 FA B1 CE CE 93 78 FF F5 20 89 92 08 0C 1C A3 BC 77 97 32 94 33 D6 80 26 A2 EA 5A E1 39 38 F3 CE AD 19 24 E9 6C C8 1F B7 B2 29 AC 6C 8F FF 07 94 44 37 79 BD 66 EA 1A 87 6E A4 58 67 E8 D1 20 0F E3 A1 D5 0E 12 5F D1 FC 7C D0 50 19 94 53 11 6C 93 05 38 70 20 D6 D4 B7 9D B5 BE 70 D0 8D D0 4D 97 67 B4 60 41 45 92 98 FC 90 33 FC EF D9 95 C5 11 55 CB 97 DB 1F 0F CB 16 D6 77 06 BA 4B 2E 21 84 5D 48	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9A 03 9F 21 03 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9F 4E 14 9C 01 9F 36 02	
9F 51	Application Currency Code [UICS]	01 56 - CNY	
9F 52	Application Default Action [UICS]	00 00	
9F 53	Consecutive Transaction Limit (International) [UICS]	00	
9F 54	Cumulative Total Transaction Amount Limit [UICS]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [UICS]	80	
9F 57	Issuer Country Code [UICS]	01 56 - CHN	
9F 58	Lower Consecutive Offline Limit (Card Check) [UICS]	00	
9F 59	Upper Consecutive Offline Limit (Card Check) [UICS]	00	



Tag	Element name	Data	v9.1
9F 5C	Cumulative Total Transaction Amount Upper Limit [UICS]	00 00 00 00 00 00	
9F 61	Cardholder ID Number [UICS]	31 31 30 31 30 31 31 39 38 36 30 36 32 30 30 30 31 30	
9F 62	Cardholder ID Type [UICS]	00	
9F 72	Consecutive Transaction Limit (International-Country) [UICS]	00	
9F 75	Cumulative Total Transaction Amount Limit - Dual Currency [UICS]	00 00 00 00 00 00	

1.1.5 Contact Interface: CVM List - UnionPay, AID A00000333010103, Low-Value, Dual-Currency

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

1.1.6 Contact Interface: Application Tag data, AID A00000333010103

* Tag value changes with card usage

Tag	Element name	Data	v9.1
50	Application Label	D2 F8 C1 AA 36 32 B2 E2 CA D4 49 43 BF A8 - None-ASCII chars	
57	Track 2 Equivalent Data	62 10 94 80 00 00 00 52 D3 01 02 20 00 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	62 10 94 80 00 00 00 52	
5F 20	Cardholder Name	55 49 43 43 46 54 30 35 - 'UICCF05'	
5F 24	Application Expiration Date	30 10 31	
5F 25	Application Effective Date	05 10 31	
5F 28	Issuer Country Code	01 56 - CHN	
5F 2D	Language Preference	63 6E - 'cn' (Chinese)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile [UICS]	7D 00	
84	Dedicated File (DF) Name	A0 00 00 03 33 01 01 03	
87	Application Priority Indicator	03	
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 21 03 9F 4E 14 9F 34 03	
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 9F 21 03 9B 02	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 5E 03 42 03 1F 00	
8F	Certification Authority Public Key Index	09	



Tag	Element name	Data	v9.1
90	Issuer Public Key Certificate	94 01 D7 4D AE 33 CF 02 88 45 A9 F4 27 7C 19 CA 00 3C 8A 8E 95 A0 0C F6 A8 8C C6 4F 10 DB FC 5E 90 DE E9 65 22 4C 94 5E BB BA 12 EF 3D 0A 64 8F 99 92 E1 D6 53 F9 11 BA BB E1 40 6E 3B 97 EE A4 68 C1 13 45 4D 78 C8 A5 65 33 9E 1E E1 C6 7B 84 7E 58 79 3C 3E C8 F5 42 01 16 00 A5 44 35 00 4B C5 7C 82 01 F0 18 0F 6A 45 1B 67 24 05 DE 3F 31 2A 44 D2 7B B3 59 46 6D 96 31 9B F7 35 40 2C D3 8A 36 61 E9 AE 2D 3F C4 F1 A4 B2 9D 22 60 8A 75 2A 31 FE 63 60 7D 85 13 EF 4D 46 95 EA 3E 76 36 5C 06 66 0F CA 44 FA BC D0 55 03 E1 C2 D7 D0 4B	
92	Issuer Public Key Remainder	98 76 E2 7A 8C 9D F0 05 6B D6 27 03 67 EB 29 94 B5 D3 38 DD B5 44 36 81 E1 27 F8 6F 4D FA F3 33 7C BB EC B1	
93	Signed Static Application Data	06 48 0E D1 02 C9 53 ED 70 7A 34 D7 1C C4 6D 3E 7C 26 13 2D 93 DF 8B DC 91 86 2C 14 5E FC DB CF E6 89 6E E5 82 AD 3E E6 F4 32 88 8A F1 BE 36 8C 81 01 67 9A 8B 8E 3E 00 46 47 CB E9 B3 25 A2 3F EC 47 36 31 4F 63 8D FD 1C 4F F4 00 A1 2E 3D B1 DC B2 B1 13 67 D0 86 DA 4D 6F 5E FF 79 3C D1 78 23 1D 58 FE 3F 01 32 C6 68 37 E5 70 A3 D8 C1 41 35 7C 22 45 8F 7B 3B 61 68 A1 F9 27 A9 FE 02 DA 05 1A CC 6C 45 63 CD 49 95 FD BB D0 99 BC F8 D2 B2 43 E0 51 F8 CD AD 2F F1 65 12 86 7E 4D 30 EC 26 54 82 0F 3B E8 38 CC 8D 09 FD A8 5E 6E B9 D6	
94	Application File Locator (AFL)	08 01 03 00 10 01 05 01 20 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 20	
9F 0D	Issuer Action Code - Default	FC 60 04 A8 00	
9F 0E	Issuer Action Code - Denial	00 10 00 00 00	
9F 0F	Issuer Action Code - Online	FC 68 04 F8 00	
9F 10	Issuer Application Data [UICS]	xx 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	D2 F8 C1 AA 36 32 B2 E2 CA D4 49 43 BF A8 - None-ASCII chars	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 14	Lower Consecutive Offline Limit	7F	
9F 1F	Track 1 Discretionary Data	32 30 31 35 30 36 32 35 31 30 35 33 30 38	
9F 23	Upper Consecutive Offline Limit	FF	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 1A 02	



Tag	Element name	Data	v9.1
9F 42	Application Currency Code	01 56 - CNY	
9F 46	ICC Public Key Certificate	59 2D 77 94 DB 80 57 1E 76 F4 A3 7E 00 1E 25 0F 0D AD 6A EF B1 C5 D8 0C 41 0E 5B D8 0D E9 E5 B8 9E 6C CB 67 D7 AD 02 3E 50 B8 30 83 59 81 D1 02 58 B3 16 6E 16 1D 45 D4 3B 13 75 69 81 C2 B1 3B 1F 8B 46 59 0C 9B FB 8D 3F EE B9 FD BB 1A 44 AF 67 3A D7 C4 AD 14 31 6B DC 4A 66 EB E6 E5 9A EA 57 FF 7C 2B ED A9 DC C9 6C 1C D9 B0 8D 02 46 39 9E 1D 2C 2E D4 99 0C 8E F9 08 F4 B1 C3 3A 02 45 E5 66 7E 6E 1D 56 49 7D 0F D1 83 67 19 EB 15 B0 4F D6 03 83 7E 0D 0D EF 92 1E 91 EB C5 56 4E 15 A5 E6 A3 B3 C7 4B F4 B0 5C 1F 2D F4 36 B4 07 21	
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	F9 F0 58 5F 51 FC 50 CA 1A 6F 46 30 3E 70 DB 5B 43 6B 59 A6 96 FE 1F 53 A0 C8 05 7D 0A A5 6A A0 2D 2F 19 33 95 A7 36 3A 3A D7	
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	97 63 BD E2 8A CA 85 59 A2 6E 86 B0 FA 63 2F 8B 52 84 F9 54 A1 AD 7B F3 5C 1F 18 2E 86 DB C1 30 73 CC A7 0A 25 51 47 83 62 22 3C E7 0E F6 73 0F E9 78 38 3D 76 C0 5C 7D B8 50 BA AF 90 AE D2 41 B8 02 A0 E4 3A B9 5C EF 67 24 FC 37 D4 BD D0 D8 1A 06 53 E3 86 B7 EF 25 84 45 1A 3D 23 E7 85 47 C8 DC DB 9A 50 47 03 F1 4C 93 A4 A4 63 7B FE A6 D0 72 F8 A5 75 C8 84 31 46 8A 6B C0 71 AF 4E 17 A2 B0 AE 1E 11 FF 92 67 EF 88 63 6C 19 35 EA 05 7F 86 2E 58 2F 95 FC 5A 0B 76 EA 83 6C 65 20 0E 8B 35 2B 83 8E 31 CF 9F E8 65 45 10 2B BE F8 47	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9A 03 9F 21 03 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9F 4E 14 9C 01 9F 36 02	
9F 51	Application Currency Code [UICS]	01 56 - CNY	
9F 52	Application Default Action [UICS]	00 00	
9F 53	Consecutive Transaction Limit (International) [UICS]	00	
9F 54	Cumulative Total Transaction Amount Limit [UICS]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [UICS]	80	
9F 57	Issuer Country Code [UICS]	01 56 - CHN	
9F 58	Lower Consecutive Offline Limit (Card Check) [UICS]	00	
9F 59	Upper Consecutive Offline Limit (Card Check) [UICS]	00	



Tag	Element name	Data	v9.1
9F 5C	Cumulative Total Transaction Amount Upper Limit [UICS]	00 00 00 00 00 00	
9F 61	Cardholder ID Number [UICS]	31 31 30 31 30 31 31 39 38 36 30 36 32 30 30 30 31 30	
9F 62	Cardholder ID Type [UICS]	00	
9F 72	Consecutive Transaction Limit (International-Country) [UICS]	00	
9F 75	Cumulative Total Transaction Amount Limit - Dual Currency [UICS]	00 00 00 00 00 00	

1.2 Test Card FT21 - UnionPay, CO, 1-AID, English, CHN, CNY

A contact-only, single-AID(UnionPay) credit card with an Issuer Country Code of 'China' and Currency Code of 'CNY'. Languages supported are Chinese and English.

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

1.2.1 Contact Interface: CVM List - UnionPay, AID A00000333010101, EMV

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

1.2.2 Contact Interface: Application Tag data, AID A00000333010101

* Tag value changes with card usage

Tag	Element name	Data	v9.1
50	Application Label	55 49 43 43 20 44 45 42 49 54 - 'UICC DEBIT'	
57	Track 2 Equivalent Data	62 10 94 80 00 00 02 19 D3 01 02 20 00 00 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	62 10 94 80 00 00 02 19	
5F 20	Cardholder Name	55 49 43 43 46 54 32 31 - 'UICCF21'	
5F 24	Application Expiration Date	30 10 31	
5F 25	Application Effective Date	11 09 01	
5F 28	Issuer Country Code	01 56 - CHN	
5F 2D	Language Preference	7A 68 65 6E - 'zhen' (Chinese, English)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	00	
82	Application Interchange Profile [UICS]	7C 00	
84	Dedicated File (DF) Name	A0 00 00 03 33 01 01 01	
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 21 03 9F 4E 14 9F 34 03	
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 9F 21 03 9B 02	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 03 1E 03 1F 00	
8F	Certification Authority Public Key Index	09	



Tag	Element name	Data	v9.1
90	Issuer Public Key Certificate	94 01 D7 4D AE 33 CF 02 88 45 A9 F4 27 7C 19 CA 00 3C 8A 8E 95 A0 0C F6 A8 8C C6 4F 10 DB FC 5E 90 DE E9 65 22 4C 94 5E BB BA 12 EF 3D 0A 64 8F 99 92 E1 D6 53 F9 11 BA BB E1 40 6E 3B 97 EE A4 68 C1 13 45 4D 78 C8 A5 65 33 9E 1E E1 C6 7B 84 7E 58 79 3C 3E C8 F5 42 01 16 00 A5 44 35 00 4B C5 7C 82 01 F0 18 0F 6A 45 1B 67 24 05 DE 3F 31 2A 44 D2 7B B3 59 46 6D 96 31 9B F7 35 40 2C D3 8A 36 61 E9 AE 2D 3F C4 F1 A4 B2 9D 22 60 8A 75 2A 31 FE 63 60 7D 85 13 EF 4D 46 95 EA 3E 76 36 5C 06 66 0F CA 44 FA BC D0 55 03 E1 C2 D7 D0 4B	
92	Issuer Public Key Remainder	98 76 E2 7A 8C 9D F0 05 6B D6 27 03 67 EB 29 94 B5 D3 38 DD B5 44 36 81 E1 27 F8 6F 4D FA F3 33 7C BB EC B1	
93	Signed Static Application Data	55 C6 BE 81 EB 2A 34 92 FE 1F E3 0D B4 F9 5D 40 49 8F FC 9A A3 66 84 7B 89 70 B9 DD 06 A6 15 C7 6B 3C DC 5B 21 B7 F5 B5 23 3C 58 8A 72 7F 29 18 E8 64 8E 73 71 25 B3 10 81 87 7E 39 59 99 0B 52 46 1C BA 70 4D D6 08 62 CF 5F 3A D1 70 4D 3B 22 6B 11 D6 CF 14 46 50 8F FB 85 A2 C5 65 7B 95 AC 7B 77 96 58 DD 2C 15 1B 01 E9 12 60 06 34 8B 3D 1D 38 5A 2F D9 BA D5 09 B4 45 55 E6 F0 6C C0 9F 46 41 F8 86 CD 63 0D 5D F1 7F A5 5A 6C 7D 78 4F D5 7D 07 D8 53 20 25 D6 25 E1 49 55 38 0A 9E 12 DD 83 1C 1C 97 AA AD BF CD A2 8F BB 0B 52 D0 C9	
94	Application File Locator (AFL)	08 01 01 00 10 01 04 00 18 01 01 01 20 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 30	
9F 0D	Issuer Action Code - Default	D8 60 9C A8 00	
9F 0E	Issuer Action Code - Denial	00 10 00 00 00	
9F 0F	Issuer Action Code - Online	D8 68 9C F8 00	
9F 10	Issuer Application Data [UICS]	xx 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	55 49 43 43 20 44 45 42 49 54 - 'UICC DEBIT'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 1F	Track 1 Discretionary Data	32 30 31 35 30 36 32 35 31 34 33 38 31 36	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 7A 01 9F 02 06 5F 2A 02 DF 69 01	



Tag	Element name	Data	v9.1
9F 42	Application Currency Code	01 56	
9F 46	ICC Public Key Certificate	3F BB D4 87 AC C1 C4 35 84 DF FA ED CE 59 01 D5 7E E6 CC 43 C0 54 FF 96 C3 83 11 48 E0 1F 67 81 2D 58 E1 2F EF 1A 27 4F 7B 47 92 2A 88 21 88 E8 94 8D 78 77 93 59 82 7E 00 70 73 27 81 1B D9 11 93 50 84 D5 57 3D 14 6E 41 86 2D 01 5E 0A A8 2B 17 6C 90 7F 98 8C 0C 09 A0 EB 1F 48 83 72 E6 27 A1 26 03 06 E1 89 88 44 52 03 27 D8 58 2A 2A 34 2B D6 00 2B 2A 6B E9 D3 36 2E B8 A6 BE A5 19 9B FF 28 A4 33 0D 11 9D 5D 7F 1B 12 98 B3 60 EC 4D 06 84 45 4C 43 07 22 68 4F C5 9C E2 FE 96 21 10 D3 64 C9 5F 20 13 6D 55 14 F5 65 13 01 05 C0 05	
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	44 15 8F CA 89 E8 17 FA A4 63 76 53 FD 54 C8 5F 54 2C CC 4F 3B B8 B0 F3 94 60 E9 C7 DC 21 70 62 09 72 DC 02 87 46 44 9D 0D E1	
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	13 98 0D FA E9 1C 17 A2 D7 F4 AF 1F 41 25 B4 39 3B 3B 28 1F 3E 7A 09 E2 32 6C C2 18 2A 53 59 D1 28 E6 97 83 41 70 1F B5 93 FB 4D ED 6B B1 81 36 1C D8 B2 AD 14 DF 20 91 0C 39 B6 60 30 FA B6 85 A5 AA 09 E4 01 7F DF 7E 55 1F 03 A3 C1 A2 76 DF 1A 6C B0 DA DC 7A 6A 22 D1 1D D4 46 80 F7 52 B7 83 EC 39 2B 44 2C AE 6C F4 5F 3A E4 28 3E 47 96 9F A0 B3 50 C5 79 3B 2A 36 CC AA 84 BE E5 8D A9 9C 1F 67 E4 A6 88 0C DF 0A 5D 92 79 73 C7 56 89 DF 05 2F 83 54 C9 0B 5E 93 28 BF 82 5A AF 86 49 3C 54 88 A1 50 B4 45 50 1C 1F 3F AE 13 15 F3 6C	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9A 03 9F 21 03 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9F 4E 14 9C 01 9F 36 02	
9F 51	Application Currency Code [UICS]	01 56 - CHY	
9F 52	Application Default Action [UICS]	00 00	
9F 53	Consecutive Transaction Limit (International) [UICS]	04	
9F 54	Cumulative Total Transaction Amount Limit [UICS]	00 00 00 02 50 00	
9F 56	Issuer Authentication Indicator [UICS]	00	
9F 57	Issuer Country Code [UICS]	01 56 - CHN	
9F 58	Lower Consecutive Offline Limit (Card Check) [UICS]	03	
9F 59	Upper Consecutive Offline Limit (Card Check) [UICS]	05	



Tag	Element name	Data	v9.1
9F 5C	Cumulative Total Transaction Amount Upper Limit [UICS]	00 00 00 02 50 00	
9F 5D	Available Offline Spending Amount [UICS]	00 00 00 00 00 00	
9F 63	Product Label Information [UICS]	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
9F 68	Card Additional Processes [UICS]	91 70 30 00	
9F 6B	Card CVM Limit [UICS]	00 00 00 10 00 00	
9F 6D	EC Reset Threshold [UICS]	00 00 00 00 00 00	
9F 77	EC Balance Limit [UICS]	00 00 00 10 00 11	
9F 78	EC Single Transaction Limit [UICS]	00 00 00 10 00 01	
9F 79	EC Balance [UICS]	00 00 00 00 00 00	

1.2.3 Contact Interface: CVM List - UnionPay, AID A00000333010101, Low-Value

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

1.2.4 Contact Interface: Application Tag data, AID A00000333010101

* Tag value changes with card usage

Tag	Element name	Data	v9.1
50	Application Label	55 49 43 43 20 44 45 42 49 54 - 'UICC DEBIT'	
57	Track 2 Equivalent Data	62 10 94 80 00 00 02 19 D3 01 02 20 00 00 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	62 10 94 80 00 00 02 19	
5F 20	Cardholder Name	55 49 43 43 46 54 32 31 - 'UICCF21'	
5F 24	Application Expiration Date	30 10 31	
5F 25	Application Effective Date	11 09 01	
5F 28	Issuer Country Code	01 56 - CHN	
5F 2D	Language Preference	7A 68 65 6E - 'zhen' (Chinese, English)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	00	
82	Application Interchange Profile [UICS]	7C 00	
84	Dedicated File (DF) Name	A0 00 00 03 33 01 01 01	
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 21 03 9F 4E 14 9F 34 03	
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 9F 21 03 9B 02	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 03 1E 03 1F 00	
8F	Certification Authority Public Key Index	09	



Tag	Element name	Data	v9.1
90	Issuer Public Key Certificate	94 01 D7 4D AE 33 CF 02 88 45 A9 F4 27 7C 19 CA 00 3C 8A 8E 95 A0 0C F6 A8 8C C6 4F 10 DB FC 5E 90 DE E9 65 22 4C 94 5E BB BA 12 EF 3D 0A 64 8F 99 92 E1 D6 53 F9 11 BA BB E1 40 6E 3B 97 EE A4 68 C1 13 45 4D 78 C8 A5 65 33 9E 1E E1 C6 7B 84 7E 58 79 3C 3E C8 F5 42 01 16 00 A5 44 35 00 4B C5 7C 82 01 F0 18 0F 6A 45 1B 67 24 05 DE 3F 31 2A 44 D2 7B B3 59 46 6D 96 31 9B F7 35 40 2C D3 8A 36 61 E9 AE 2D 3F C4 F1 A4 B2 9D 22 60 8A 75 2A 31 FE 63 60 7D 85 13 EF 4D 46 95 EA 3E 76 36 5C 06 66 0F CA 44 FA BC D0 55 03 E1 C2 D7 D0 4B	
92	Issuer Public Key Remainder	98 76 E2 7A 8C 9D F0 05 6B D6 27 03 67 EB 29 94 B5 D3 38 DD B5 44 36 81 E1 27 F8 6F 4D FA F3 33 7C BB EC B1	
93	Signed Static Application Data	55 C6 BE 81 EB 2A 34 92 FE 1F E3 0D B4 F9 5D 40 49 8F FC 9A A3 66 84 7B 89 70 B9 DD 06 A6 15 C7 6B 3C DC 5B 21 B7 F5 B5 23 3C 58 8A 72 7F 29 18 E8 64 8E 73 71 25 B3 10 81 87 7E 39 59 99 0B 52 46 1C BA 70 4D D6 08 62 CF 5F 3A D1 70 4D 3B 22 6B 11 D6 CF 14 46 50 8F FB 85 A2 C5 65 7B 95 AC 7B 77 96 58 DD 2C 15 1B 01 E9 12 60 06 34 8B 3D 1D 38 5A 2F D9 BA D5 09 B4 45 55 E6 F0 6C C0 9F 46 41 F8 86 CD 63 0D 5D F1 7F A5 5A 6C 7D 78 4F D5 7D 07 D8 53 20 25 D6 25 E1 49 55 38 0A 9E 12 DD 83 1C 1C 97 AA AD BF CD A2 8F BB 0B 52 D0 C9	
94	Application File Locator (AFL)	08 01 01 00 10 01 04 00 18 01 01 01 20 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 30	
9F 0D	Issuer Action Code - Default	D8 60 9C A8 00	
9F 0E	Issuer Action Code - Denial	00 10 00 00 00	
9F 0F	Issuer Action Code - Online	D8 68 9C F8 00	
9F 10	Issuer Application Data [UICS]	xx 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	55 49 43 43 20 44 45 42 49 54 - 'UICC DEBIT'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 1F	Track 1 Discretionary Data	32 30 31 35 30 36 32 35 31 34 33 38 31 36	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 7A 01 9F 02 06 5F 2A 02 DF 69 01	



Tag	Element name	Data	v9.1
9F 42	Application Currency Code	01 56	
9F 46	ICC Public Key Certificate	3F BB D4 87 AC C1 C4 35 84 DF FA ED CE 59 01 D5 7E E6 CC 43 C0 54 FF 96 C3 83 11 48 E0 1F 67 81 2D 58 E1 2F EF 1A 27 4F 7B 47 92 2A 88 21 88 E8 94 8D 78 77 93 59 82 7E 00 70 73 27 81 1B D9 11 93 50 84 D5 57 3D 14 6E 41 86 2D 01 5E 0A A8 2B 17 6C 90 7F 98 8C 0C 09 A0 EB 1F 48 83 72 E6 27 A1 26 03 06 E1 89 88 44 52 03 27 D8 58 2A 2A 34 2B D6 00 2B 2A 6B E9 D3 36 2E B8 A6 BE A5 19 9B FF 28 A4 33 0D 11 9D 5D 7F 1B 12 98 B3 60 EC 4D 06 84 45 4C 43 07 22 68 4F C5 9C E2 FE 96 21 10 D3 64 C9 5F 20 13 6D 55 14 F5 65 13 01 05 C0 05	
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	44 15 8F CA 89 E8 17 FA A4 63 76 53 FD 54 C8 5F 54 2C CC 4F 3B B8 B0 F3 94 60 E9 C7 DC 21 70 62 09 72 DC 02 87 46 44 9D 0D E1	
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	BC F8 E8 13 A0 86 86 9B 8D 28 89 96 8D 29 35 2D 5E 64 E2 E1 AF 19 E5 F1 D5 85 59 91 9A 26 3F FA A5 EF 2D F0 5D 83 80 B7 AC 8C 7E 87 18 D4 DC 43 59 CA 15 39 41 F8 2A 3F AA 03 59 15 B6 EB 91 3E F4 92 16 13 98 AC 07 FF EF 4E CC DC 0E FA 29 13 B8 46 68 AF 86 C2 2B 75 98 81 EF 14 0D 6C F5 EB DB 70 4E 7A 89 EB E0 FE 0E C0 81 71 5F 19 C1 C4 96 AB E2 1B 3A 49 BD 5F FA A7 1A 99 A4 C0 74 55 A7 78 98 A0 03 08 C8 E1 6D 40 56 A7 2F 3F 38 31 CC 7B 38 F7 27 7E 30 DA 9B 17 6B 78 4D C2 65 6D 38 0C 98 6C 9C 43 95 23 52 B5 5D AE D5 AC 09 C9	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9A 03 9F 21 03 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9F 4E 14 9C 01 9F 36 02	
9F 51	Application Currency Code [UICS]	01 56 - CHY	
9F 52	Application Default Action [UICS]	00 00	
9F 53	Consecutive Transaction Limit (International) [UICS]	04	
9F 54	Cumulative Total Transaction Amount Limit [UICS]	00 00 00 02 50 00	
9F 56	Issuer Authentication Indicator [UICS]	00	
9F 57	Issuer Country Code [UICS]	01 56 - CHN	
9F 58	Lower Consecutive Offline Limit (Card Check) [UICS]	03	
9F 59	Upper Consecutive Offline Limit (Card Check) [UICS]	05	



Tag	Element name	Data	v9.1
9F 5C	Cumulative Total Transaction Amount Upper Limit [UICS]	00 00 00 02 50 00	
9F 5D	Available Offline Spending Amount [UICS]	00 00 00 00 00 00	
9F 63	Product Label Information [UICS]	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
9F 68	Card Additional Processes [UICS]	91 70 30 00	
9F 6B	Card CVM Limit [UICS]	00 00 00 10 00 00	
9F 6D	EC Reset Threshold [UICS]	00 00 00 00 00 00	
9F 77	EC Balance Limit [UICS]	00 00 00 10 00 11	
9F 78	EC Single Transaction Limit [UICS]	00 00 00 10 00 01	
9F 79	EC Balance [UICS]	00 00 00 00 00 00	

1.2.5 Contact Interface: CVM List - UnionPay, AID A00000333010101, Low-Value, Dual-Currency

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

1.2.6 Contact Interface: Application Tag data, AID A00000333010101

* Tag value changes with card usage

Tag	Element name	Data	v9.1
50	Application Label	55 49 43 43 20 44 45 42 49 54 - 'UICC DEBIT'	
57	Track 2 Equivalent Data	62 10 94 80 00 00 02 19 D3 01 02 20 00 00 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	62 10 94 80 00 00 02 19	
5F 20	Cardholder Name	55 49 43 43 46 54 32 31 - 'UICCF21'	
5F 24	Application Expiration Date	30 10 31	
5F 25	Application Effective Date	11 09 01	
5F 28	Issuer Country Code	01 56 - CHN	
5F 2D	Language Preference	7A 68 65 6E - 'zhen' (Chinese, English)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	00	
82	Application Interchange Profile [UICS]	7C 00	
84	Dedicated File (DF) Name	A0 00 00 03 33 01 01 01	
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 21 03 9F 4E 14 9F 34 03	
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 9F 21 03 9B 02	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 02 03 1E 03 1F 00	
8F	Certification Authority Public Key Index	09	



Tag	Element name	Data	v9.1
90	Issuer Public Key Certificate	94 01 D7 4D AE 33 CF 02 88 45 A9 F4 27 7C 19 CA 00 3C 8A 8E 95 A0 0C F6 A8 8C C6 4F 10 DB FC 5E 90 DE E9 65 22 4C 94 5E BB BA 12 EF 3D 0A 64 8F 99 92 E1 D6 53 F9 11 BA BB E1 40 6E 3B 97 EE A4 68 C1 13 45 4D 78 C8 A5 65 33 9E 1E E1 C6 7B 84 7E 58 79 3C 3E C8 F5 42 01 16 00 A5 44 35 00 4B C5 7C 82 01 F0 18 0F 6A 45 1B 67 24 05 DE 3F 31 2A 44 D2 7B B3 59 46 6D 96 31 9B F7 35 40 2C D3 8A 36 61 E9 AE 2D 3F C4 F1 A4 B2 9D 22 60 8A 75 2A 31 FE 63 60 7D 85 13 EF 4D 46 95 EA 3E 76 36 5C 06 66 0F CA 44 FA BC D0 55 03 E1 C2 D7 D0 4B	
92	Issuer Public Key Remainder	98 76 E2 7A 8C 9D F0 05 6B D6 27 03 67 EB 29 94 B5 D3 38 DD B5 44 36 81 E1 27 F8 6F 4D FA F3 33 7C BB EC B1	
93	Signed Static Application Data	55 C6 BE 81 EB 2A 34 92 FE 1F E3 0D B4 F9 5D 40 49 8F FC 9A A3 66 84 7B 89 70 B9 DD 06 A6 15 C7 6B 3C DC 5B 21 B7 F5 B5 23 3C 58 8A 72 7F 29 18 E8 64 8E 73 71 25 B3 10 81 87 7E 39 59 99 0B 52 46 1C BA 70 4D D6 08 62 CF 5F 3A D1 70 4D 3B 22 6B 11 D6 CF 14 46 50 8F FB 85 A2 C5 65 7B 95 AC 7B 77 96 58 DD 2C 15 1B 01 E9 12 60 06 34 8B 3D 1D 38 5A 2F D9 BA D5 09 B4 45 55 E6 F0 6C C0 9F 46 41 F8 86 CD 63 0D 5D F1 7F A5 5A 6C 7D 78 4F D5 7D 07 D8 53 20 25 D6 25 E1 49 55 38 0A 9E 12 DD 83 1C 1C 97 AA AD BF CD A2 8F BB 0B 52 D0 C9	
94	Application File Locator (AFL)	08 01 01 00 10 01 04 00 18 01 01 01 20 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 30	
9F 0D	Issuer Action Code - Default	D8 60 9C A8 00	
9F 0E	Issuer Action Code - Denial	00 10 00 00 00	
9F 0F	Issuer Action Code - Online	D8 68 9C F8 00	
9F 10	Issuer Application Data [UICS]	xx 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	55 49 43 43 20 44 45 42 49 54 - 'UICC DEBIT'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 1F	Track 1 Discretionary Data	32 30 31 35 30 36 32 35 31 34 33 38 31 36	
9F 26	Application Cryptogram (AC)	xx xx xx xx xx xx xx xx *	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 7A 01 9F 02 06 5F 2A 02 DF 69 01	



Tag	Element name	Data	v9.1
9F 42	Application Currency Code	01 56	
9F 46	ICC Public Key Certificate	3F BB D4 87 AC C1 C4 35 84 DF FA ED CE 59 01 D5 7E E6 CC 43 C0 54 FF 96 C3 83 11 48 E0 1F 67 81 2D 58 E1 2F EF 1A 27 4F 7B 47 92 2A 88 21 88 E8 94 8D 78 77 93 59 82 7E 00 70 73 27 81 1B D9 11 93 50 84 D5 57 3D 14 6E 41 86 2D 01 5E 0A A8 2B 17 6C 90 7F 98 8C 0C 09 A0 EB 1F 48 83 72 E6 27 A1 26 03 06 E1 89 88 44 52 03 27 D8 58 2A 2A 34 2B D6 00 2B 2A 6B E9 D3 36 2E B8 A6 BE A5 19 9B FF 28 A4 33 0D 11 9D 5D 7F 1B 12 98 B3 60 EC 4D 06 84 45 4C 43 07 22 68 4F C5 9C E2 FE 96 21 10 D3 64 C9 5F 20 13 6D 55 14 F5 65 13 01 05 C0 05	
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	44 15 8F CA 89 E8 17 FA A4 63 76 53 FD 54 C8 5F 54 2C CC 4F 3B B8 B0 F3 94 60 E9 C7 DC 21 70 62 09 72 DC 02 87 46 44 9D 0D E1	
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	93 44 8E 06 42 F2 12 7B 3C 4A 15 5C 7E 1F D8 9D 67 C4 07 ED FC 75 49 13 C1 7A 7D E4 1E E8 C2 D7 16 DD 70 4B FD 1E DA A4 41 09 8F 56 12 98 F3 66 50 14 EC 58 66 59 B1 FD F3 F9 07 91 0A BF 3C A4 84 CD 27 3E B2 2E B3 CB CB 5E 33 2D C1 9D 1A 3C 23 11 6F A1 AB CA F5 2D 77 B6 2D 7A 74 D8 B3 41 C0 69 C2 AC 53 4C BF EB 73 E0 22 4A 00 A8 63 52 33 E2 96 2A F3 B4 D9 64 AD D6 22 6E 3F 7A BA 66 B7 51 FA AB 79 60 37 D2 99 A3 33 0E DA FA CB 3A 7A 3C B7 8E 8B 54 F3 9E E1 26 12 A6 A6 7F AD B4 55 57 57 2F 46 79 DA 7B 88 AB 37 46 9E 85 BE AF	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9A 03 9F 21 03 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9F 4E 14 9C 01 9F 36 02	
9F 51	Application Currency Code [UICS]	01 56 - CHY	
9F 52	Application Default Action [UICS]	00 00	
9F 53	Consecutive Transaction Limit (International) [UICS]	04	
9F 54	Cumulative Total Transaction Amount Limit [UICS]	00 00 00 02 50 00	
9F 56	Issuer Authentication Indicator [UICS]	00	
9F 57	Issuer Country Code [UICS]	01 56 - CHN	
9F 58	Lower Consecutive Offline Limit (Card Check) [UICS]	03	
9F 59	Upper Consecutive Offline Limit (Card Check) [UICS]	05	



Tag	Element name	Data	v9.1
9F 5C	Cumulative Total Transaction Amount Upper Limit [UICS]	00 00 00 02 50 00	
9F 5D	Available Offline Spending Amount [UICS]	00 00 00 00 00 00	
9F 63	Product Label Information [UICS]	00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00	
9F 68	Card Additional Processes [UICS]	91 70 30 00	
9F 6B	Card CVM Limit [UICS]	00 00 00 10 00 00	
9F 6D	EC Reset Threshold [UICS]	00 00 00 00 00 00	
9F 77	EC Balance Limit [UICS]	00 00 00 10 00 11	
9F 78	EC Single Transaction Limit [UICS]	00 00 00 10 00 01	
9F 79	EC Balance [UICS]	00 00 00 00 00 00	

1.3 Test Card FT25 - UnionPay, CO, 1-AID, Chinese, CHN, CNY

A contact-only, single-AID(UnionPay) credit card with an Issuer Country Code of 'China' and Currency Code of 'CNY'. Languages supported include Chinese.

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

1.3.1 Contact Interface: CVM List - UnionPay, AID A00000333010102, EMV

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

1.3.2 Contact Interface: Application Tag data, AID A00000333010102

* Tag value changes with card usage

Tag	Element name	Data	v9.1
50	Application Label	55 49 43 43 20 43 52 45 44 49 54 - 'UICC CREDIT'	
57	Track 2 Equivalent Data	62 10 94 80 00 00 02 50 D3 01 02 20 00 00 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	62 10 94 80 00 00 02 50	
5F 20	Cardholder Name	55 49 43 43 46 54 32 35 - 'UICCF25'	
5F 24	Application Expiration Date	30 10 31	
5F 25	Application Effective Date	05 10 31	
5F 28	Issuer Country Code	01 56 - CHN	
5F 2D	Language Preference	63 6E - 'cn' (Chinese)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	00	
82	Application Interchange Profile [UICS]	7D 00	
84	Dedicated File (DF) Name	A0 00 00 03 33 01 01 02	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 21 03 9F 4E 14 9F 34 03	
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 9F 21 03 9B 02	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 5E 03 42 03 1F 00	



Tag	Element name	Data	v9.1	
8F	Certification Authority Public Key Index	09		
90	Issuer Public Key Certificate	94 01 D7 4D AE 33 CF 02 88 45 A9 F4 27 7C 19 CA 00 3C 8A 8E 95 A0 0C F6 A8 8C C6 4F 10 DB FC 5E 90 DE E9 65 22 4C 94 5E BB BA 12 EF 3D 0A 64 8F 99 92 E1 D6 53 F9 11 BA BB E1 40 6E 3B 97 EE A4 68 C1 13 45 4D 78 C8 A5 65 33 9E 1E E1 C6 7B 84 7E 58 79 3C 3E C8 F5 42 01 16 00 A5 44 35 00 4B C5 7C 82 01 F0 18 0F 6A 45 1B 67 24 05 DE 3F 31 2A 44 D2 7B B3 59 46 6D 96 31 9B F7 35 40 2C D3 8A 36 61 E9 AE 2D 3F C4 F1 A4 B2 9D 22 60 8A 75 2A 31 FE 63 60 7D 85 13 EF 4D 46 95 EA 3E 76 36 5C 06 66 0F CA 44 FA BC D0 55 03 E1 C2 D7 D0 4B		
92	Issuer Public Key Remainder	98 76 E2 7A 8C 9D F0 05 6B D6 27 03 67 EB 29 94 B5 D3 38 DD B5 44 36 81 E1 27 F8 6F 4D FA F3 33 7C BB EC B1		
93	Signed Static Application Data	7B 6F 87 E1 66 B9 FC EE 67 4C C6 6C A3 C8 3B 7B EB 55 E3 4C 9B 84 84 4A DD 5C EF 0F F3 9D 5A 27 A7 9E 0B CD C3 71 21 52 A9 9B D4 4B 4A 21 D6 83 E3 9A AE 51 7C 41 C0 E4 37 C6 78 EB 3B E0 CD BB C6 E8 45 7E 5D 57 84 32 26 A5 05 BB 6B 97 CA 5D 2B 3B 74 99 55 D0 56 A5 23 29 9D 90 70 46 15 9E 2A 1A 1F 30 C8 79 15 6A 27 43 28 30 A1 AB DA A7 E3 BE B2 5A C8 93 25 E1 A2 A2 0F D5 B5 3E CC DF 5C C1 91 40 A5 A3 3A E0 66 41 93 DF E4 0A 57 30 C1 63 2F 6E 1A 39 03 7D AF BC 78 5B 92 1F 33 5A 5C AE 8E EB C3 E3 94 28 3C D6 F3 E0 59 8E 60 88		
94	Application File Locator (AFL)	08 01 03 00 10 01 04 01 20 01 01 00		
9F 07	Application Usage Control	00 00		
9F 08	Application Version Number	00 20		
9F 0D	Issuer Action Code - Default	D8 60 9C A8 00		
9F 0E	Issuer Action Code - Denial	00 00 00 00 00		
9F 0F	Issuer Action Code - Online	D8 68 9C F8 00		
9F 10	Issuer Application Data [UICS]	xx xx xx xx xx xx xx xx *		
9F 11	Issuer Code Table Index	01		
9F 12	Application Preferred Name	55 49 43 43 20 43 52 45 44 49 54 - 'UICC CREDIT'		
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *		
9F 14	Lower Consecutive Offline Limit	7F		
9F 17	Personal Identification Number (PIN) Try Counter	0F		
9F 1F	Track 1 Discretionary Data	32 30 31 35 30 36 32 35 31 35 32 34 34 30		
9F 23	Upper Consecutive Offline Limit	FF		
9F 27	Cryptogram Information Data (CID)	80		
9F 32	Issuer Public Key Exponent	03		



Tag	Element name	Data	v9.1
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 1A 02	
9F 42	Application Currency Code	01 56	
9F 46	ICC Public Key Certificate	6E F1 94 B6 81 FC EA A8 74 C3 06 59 57 F0 C2 9E 21 FF 5F 88 9E C9 1B 00 7E D1 C5 00 8B 8E B9 D7 70 A7 3A C8 DE C6 05 4F 31 C2 18 9D 2D 7D 25 D7 D9 8D AE E7 B9 BD BF 9C FF 17 6F 90 35 75 6F 1E 09 AF 3E C1 7A 86 E2 E6 EC A4 26 E2 A4 52 66 1C CF F2 FA FB B8 E1 11 53 16 A0 D6 01 91 11 87 8A 15 26 10 FF CE 6F 97 DC 0F EB FD 10 57 38 4F D2 7B 00 B2 62 FA 97 C4 2A C2 82 71 78 BE 64 F7 EE 2F C0 51 71 F8 86 C6 31 1C 75 26 AB 17 BB 2B 3D C4 3D 48 4C 39 75 E7 83 6B 34 E4 C3 BA 8D 34 BE AF C1 DA 62 9F DA CB D9 86 E8 8D CB 1E AC 6A D5	
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	74 C5 1E 17 5C B0 41 36 31 C0 C9 6C C7 55 F1 FB 3B CE 18 22 64 41 70 73 5C A4 50 2A 6B 8D 4F 28 7F 8D A5 C9 D4 82 4C CC B2 A3	
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	33 8C 1B 63 E7 D8 22 25 9D EA 6E E9 52 97 CF AC 99 B8 6B FB 59 26 7F F8 A8 EB F3 E4 92 B5 98 64 12 4B E1 96 F5 CB FB CF 9E F5 96 0E A4 1A A1 EE DD BF 5C FD 9F FF 0A 4C D6 86 A7 5D 72 AA 2B B8 33 4C 07 5F 68 AD BC 95 82 0B 4A 52 44 F0 5C AD 71 E3 F3 0F 84 80 78 66 D9 03 75 11 20 50 FA 63 D0 96 6D F5 9E E1 CA 7A 1B 1A A9 7D 00 D5 04 1A 9E 47 CC F0 80 2D D9 97 A5 59 38 D1 0D CA C0 2C AE EB 58 18 52 99 8C 1A BD 00 81 33 44 28 28 EA F7 1E 01 E0 F6 F4 48 68 A0 F2 69 15 03 0A EB B8 1F 82 5B 92 62 8A AE EA 8D 5C EC D7 19 78 26 C0	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9A 03 9F 21 03 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9F 4E 14 9C 01 9F 36 02	
9F 51	Application Currency Code [UICS]	01 56 - CHY	
9F 52	Application Default Action [UICS]	00 00	
9F 53	Consecutive Transaction Limit (International) [UICS]	00	
9F 54	Cumulative Total Transaction Amount Limit [UICS]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [UICS]	80	
9F 57	Issuer Country Code [UICS]	01 56 - CHN	
9F 58	Lower Consecutive Offline Limit (Card Check) [UICS]	00	



Tag	Element name	Data	v9.1
9F 59	Upper Consecutive Offline Limit (Card Check) [UICS]	00	
9F 5C	Cumulative Total Transaction Amount Upper Limit [UICS]	00 00 00 00 00 00	
9F 61	Cardholder ID Number [UICS]	31 31 30 31 30 31 31 39 38 36 30 36 32 30 30 30 31 30	
9F 62	Cardholder ID Type [UICS]	00	
9F 72	Consecutive Transaction Limit (International-Country) [UICS]	00	
9F 75	Cumulative Total Transaction Amount Limit - Dual Currency [UICS]	00 00 00 00 00 00	

1.3.3 Contact Interface: CVM List - UnionPay, AID A00000333010102, Low-Value

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

1.3.4 Contact Interface: Application Tag data, AID A00000333010102

* Tag value changes with card usage

Tag	Element name	Data	v9.1
50	Application Label	55 49 43 43 20 43 52 45 44 49 54 - 'UICC CREDIT'	
57	Track 2 Equivalent Data	62 10 94 80 00 00 02 50 D3 01 02 20 00 00 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	62 10 94 80 00 00 02 50	
5F 20	Cardholder Name	55 49 43 43 46 54 32 35 - 'UICCF25'	
5F 24	Application Expiration Date	30 10 31	
5F 25	Application Effective Date	05 10 31	
5F 28	Issuer Country Code	01 56 - CHN	
5F 2D	Language Preference	63 6E - 'cn' (Chinese)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	00	
82	Application Interchange Profile [UICS]	7D 00	
84	Dedicated File (DF) Name	A0 00 00 03 33 01 01 02	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 21 03 9F 4E 14 9F 34 03	
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 9F 21 03 9B 02	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 5E 03 42 03 1F 00	
8F	Certification Authority Public Key Index	09	



Tag	Element name	Data	v9.1
90	Issuer Public Key Certificate	94 01 D7 4D AE 33 CF 02 88 45 A9 F4 27 7C 19 CA 00 3C 8A 8E 95 A0 0C F6 A8 8C C6 4F 10 DB FC 5E 90 DE E9 65 22 4C 94 5E BB BA 12 EF 3D 0A 64 8F 99 92 E1 D6 53 F9 11 BA BB E1 40 6E 3B 97 EE A4 68 C1 13 45 4D 78 C8 A5 65 33 9E 1E E1 C6 7B 84 7E 58 79 3C 3E C8 F5 42 01 16 00 A5 44 35 00 4B C5 7C 82 01 F0 18 0F 6A 45 1B 67 24 05 DE 3F 31 2A 44 D2 7B B3 59 46 6D 96 31 9B F7 35 40 2C D3 8A 36 61 E9 AE 2D 3F C4 F1 A4 B2 9D 22 60 8A 75 2A 31 FE 63 60 7D 85 13 EF 4D 46 95 EA 3E 76 36 5C 06 66 0F CA 44 FA BC D0 55 03 E1 C2 D7 D0 4B	
92	Issuer Public Key Remainder	98 76 E2 7A 8C 9D F0 05 6B D6 27 03 67 EB 29 94 B5 D3 38 DD B5 44 36 81 E1 27 F8 6F 4D FA F3 33 7C BB EC B1	
93	Signed Static Application Data	7B 6F 87 E1 66 B9 FC EE 67 4C C6 6C A3 C8 3B 7B EB 55 E3 4C 9B 84 84 4A DD 5C EF 0F F3 9D 5A 27 A7 9E 0B CD C3 71 21 52 A9 9B D4 4B 4A 21 D6 83 E3 9A AE 51 7C 41 C0 E4 37 C6 78 EB 3B E0 CD BB C6 E8 45 7E 5D 57 84 32 26 A5 05 BB 6B 97 CA 5D 2B 3B 74 99 55 D0 56 A5 23 29 9D 90 70 46 15 9E 2A 1A 1F 30 C8 79 15 6A 27 43 28 30 A1 AB DA A7 E3 BE B2 5A C8 93 25 E1 A2 A2 0F D5 B5 3E CC DF 5C C1 91 40 A5 A3 3A E0 66 41 93 DF E4 0A 57 30 C1 63 2F 6E 1A 39 03 7D AF BC 78 5B 92 1F 33 5A 5C AE 8E EB C3 E3 94 28 3C D6 F3 E0 59 8E 60 88	
94	Application File Locator (AFL)	08 01 03 00 10 01 04 01 20 01 01 00	
9F 07	Application Usage Control	00 00	
9F 08	Application Version Number	00 20	
9F 0D	Issuer Action Code - Default	D8 60 9C A8 00	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	D8 68 9C F8 00	
9F 10	Issuer Application Data [UICS]	xx xx xx xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	55 49 43 43 20 43 52 45 44 49 54 - 'UICC CREDIT'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 14	Lower Consecutive Offline Limit	7F	
9F 17	Personal Identification Number (PIN) Try Counter	0F	
9F 1F	Track 1 Discretionary Data	32 30 31 35 30 36 32 35 31 35 32 34 34 30	
9F 23	Upper Consecutive Offline Limit	FF	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	



Tag	Element name	Data	v9.1
9F 38	Processing Options Data Object List (PDOL)	9F 1A 02	
9F 42	Application Currency Code	01 56	
9F 46	ICC Public Key Certificate	6E F1 94 B6 81 FC EA A8 74 C3 06 59 57 F0 C2 9E 21 FF 5F 88 9E C9 1B 00 7E D1 C5 00 8B 8E B9 D7 70 A7 3A C8 DE C6 05 4F 31 C2 18 9D 2D 7D 25 D7 D9 8D AE E7 B9 BD BF 9C FF 17 6F 90 35 75 6F 1E 09 AF 3E C1 7A 86 E2 E6 EC A4 26 E2 A4 52 66 1C CF F2 FA FB B8 E1 11 53 16 A0 D6 01 91 11 87 8A 15 26 10 FF CE 6F 97 DC 0F EB FD 10 57 38 4F D2 7B 00 B2 62 FA 97 C4 2A C2 82 71 78 BE 64 F7 EE 2F C0 51 71 F8 86 C6 31 1C 75 26 AB 17 BB 2B 3D C4 3D 48 4C 39 75 E7 83 6B 34 E4 C3 BA 8D 34 BE AF C1 DA 62 9F DA CB D9 86 E8 8D CB 1E AC 6A D5	
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	74 C5 1E 17 5C B0 41 36 31 C0 C9 6C C7 55 F1 FB 3B CE 18 22 64 41 70 73 5C A4 50 2A 6B 8D 4F 28 7F 8D A5 C9 D4 82 4C CC B2 A3	
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	2E CA 81 2E A5 76 90 C7 4F 25 44 C5 4D D3 82 3B 16 B2 BF 11 80 67 57 4C 6B CE FE 24 DB 16 AB 12 C2 72 57 94 C2 1C 65 1D 1D E8 EE CF AC B1 62 94 F4 43 92 C5 AB 66 7B 00 1C 3C BF 53 6C 6B 0F AF AE 76 27 29 87 A8 C4 F6 6F 4E A7 70 0E FB CF 3F 5E 14 34 61 90 47 3A CF 87 65 14 B3 51 7C C4 3F 56 1F 0F 1A 6A 6A 51 5F 52 F2 8E CA 3D DB 4A B5 BB 44 31 CD A6 73 A5 EB 1C FE 2A 34 B0 D5 3C 96 AA 7D 7E B2 60 12 2F 40 5E AE 9A 40 40 04 A7 C3 D4 5B 32 F9 8D 95 B1 09 E2 F3 7E 34 3F F2 19 A9 3C 83 C0 75 F9 9D ED 05 D2 6D 66 F3 EE 8F 97 CE	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9A 03 9F 21 03 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9F 4E 14 9C 01 9F 36 02	
9F 51	Application Currency Code [UICS]	01 56 - CHY	
9F 52	Application Default Action [UICS]	00 00	
9F 53	Consecutive Transaction Limit (International) [UICS]	00	
9F 54	Cumulative Total Transaction Amount Limit [UICS]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [UICS]	80	
9F 57	Issuer Country Code [UICS]	01 56 - CHN	
9F 58	Lower Consecutive Offline Limit (Card Check) [UICS]	00	



Tag	Element name	Data	v9.1
9F 59	Upper Consecutive Offline Limit (Card Check) [UICS]	00	
9F 5C	Cumulative Total Transaction Amount Upper Limit [UICS]	00 00 00 00 00 00	
9F 61	Cardholder ID Number [UICS]	31 31 30 31 30 31 31 39 38 36 30 36 32 30 30 30 31 30	
9F 62	Cardholder ID Type [UICS]	00	
9F 72	Consecutive Transaction Limit (International-Country) [UICS]	00	
9F 75	Cumulative Total Transaction Amount Limit - Dual Currency [UICS]	00 00 00 00 00 00	

1.3.5 Contact Interface: CVM List - UnionPay, AID A00000333010102, Low-Value, Dual-Currency

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

1.3.6 Contact Interface: Application Tag data, AID A00000333010102

* Tag value changes with card usage

Tag	Element name	Data	v9.1
50	Application Label	55 49 43 43 20 43 52 45 44 49 54 - 'UICC CREDIT'	
57	Track 2 Equivalent Data	62 10 94 80 00 00 02 50 D3 01 02 20 00 00 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	62 10 94 80 00 00 02 50	
5F 20	Cardholder Name	55 49 43 43 46 54 32 35 - 'UICCF25'	
5F 24	Application Expiration Date	30 10 31	
5F 25	Application Effective Date	05 10 31	
5F 28	Issuer Country Code	01 56 - CHN	
5F 2D	Language Preference	63 6E - 'cn' (Chinese)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	00	
82	Application Interchange Profile [UICS]	7D 00	
84	Dedicated File (DF) Name	A0 00 00 03 33 01 01 02	
87	Application Priority Indicator	01	
8C	Card Risk Management Data Object List 1 (CDOL1)	9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 21 03 9F 4E 14 9F 34 03	
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 9F 21 03 9B 02	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 5E 03 42 03 1F 00	
8F	Certification Authority Public Key Index	09	



Tag	Element name	Data	v9.1
90	Issuer Public Key Certificate	94 01 D7 4D AE 33 CF 02 88 45 A9 F4 27 7C 19 CA 00 3C 8A 8E 95 A0 0C F6 A8 8C C6 4F 10 DB FC 5E 90 DE E9 65 22 4C 94 5E BB BA 12 EF 3D 0A 64 8F 99 92 E1 D6 53 F9 11 BA BB E1 40 6E 3B 97 EE A4 68 C1 13 45 4D 78 C8 A5 65 33 9E 1E E1 C6 7B 84 7E 58 79 3C 3E C8 F5 42 01 16 00 A5 44 35 00 4B C5 7C 82 01 F0 18 0F 6A 45 1B 67 24 05 DE 3F 31 2A 44 D2 7B B3 59 46 6D 96 31 9B F7 35 40 2C D3 8A 36 61 E9 AE 2D 3F C4 F1 A4 B2 9D 22 60 8A 75 2A 31 FE 63 60 7D 85 13 EF 4D 46 95 EA 3E 76 36 5C 06 66 0F CA 44 FA BC D0 55 03 E1 C2 D7 D0 4B	
92	Issuer Public Key Remainder	98 76 E2 7A 8C 9D F0 05 6B D6 27 03 67 EB 29 94 B5 D3 38 DD B5 44 36 81 E1 27 F8 6F 4D FA F3 33 7C BB EC B1	
93	Signed Static Application Data	7B 6F 87 E1 66 B9 FC EE 67 4C C6 6C A3 C8 3B 7B EB 55 E3 4C 9B 84 84 4A DD 5C EF 0F F3 9D 5A 27 A7 9E 0B CD C3 71 21 52 A9 9B D4 4B 4A 21 D6 83 E3 9A AE 51 7C 41 C0 E4 37 C6 78 EB 3B E0 CD BB C6 E8 45 7E 5D 57 84 32 26 A5 05 BB 6B 97 CA 5D 2B 3B 74 99 55 D0 56 A5 23 29 9D 90 70 46 15 9E 2A 1A 1F 30 C8 79 15 6A 27 43 28 30 A1 AB DA A7 E3 BE B2 5A C8 93 25 E1 A2 A2 0F D5 B5 3E CC DF 5C C1 91 40 A5 A3 3A E0 66 41 93 DF E4 0A 57 30 C1 63 2F 6E 1A 39 03 7D AF BC 78 5B 92 1F 33 5A 5C AE 8E EB C3 E3 94 28 3C D6 F3 E0 59 8E 60 88	
94	Application File Locator (AFL)	08 01 03 00 10 01 04 01 20 01 01 00	
9F 07	Application Usage Control	00 00	
9F 08	Application Version Number	00 20	
9F 0D	Issuer Action Code - Default	D8 60 9C A8 00	
9F 0E	Issuer Action Code - Denial	00 00 00 00 00	
9F 0F	Issuer Action Code - Online	D8 68 9C F8 00	
9F 10	Issuer Application Data [UICS]	xx xx xx xx xx xx xx xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	55 49 43 43 20 43 52 45 44 49 54 - 'UICC CREDIT'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 14	Lower Consecutive Offline Limit	7F	
9F 17	Personal Identification Number (PIN) Try Counter	0F	
9F 1F	Track 1 Discretionary Data	32 30 31 35 30 36 32 35 31 35 32 34 34 30	
9F 23	Upper Consecutive Offline Limit	FF	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	



Tag	Element name	Data	v9.1
9F 38	Processing Options Data Object List (PDOL)	9F 1A 02	
9F 42	Application Currency Code	01 56	
9F 46	ICC Public Key Certificate	6E F1 94 B6 81 FC EA A8 74 C3 06 59 57 F0 C2 9E 21 FF 5F 88 9E C9 1B 00 7E D1 C5 00 8B 8E B9 D7 70 A7 3A C8 DE C6 05 4F 31 C2 18 9D 2D 7D 25 D7 D9 8D AE E7 B9 BD BF 9C FF 17 6F 90 35 75 6F 1E 09 AF 3E C1 7A 86 E2 E6 EC A4 26 E2 A4 52 66 1C CF F2 FA FB B8 E1 11 53 16 A0 D6 01 91 11 87 8A 15 26 10 FF CE 6F 97 DC 0F EB FD 10 57 38 4F D2 7B 00 B2 62 FA 97 C4 2A C2 82 71 78 BE 64 F7 EE 2F C0 51 71 F8 86 C6 31 1C 75 26 AB 17 BB 2B 3D C4 3D 48 4C 39 75 E7 83 6B 34 E4 C3 BA 8D 34 BE AF C1 DA 62 9F DA CB D9 86 E8 8D CB 1E AC 6A D5	
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	74 C5 1E 17 5C B0 41 36 31 C0 C9 6C C7 55 F1 FB 3B CE 18 22 64 41 70 73 5C A4 50 2A 6B 8D 4F 28 7F 8D A5 C9 D4 82 4C CC B2 A3	
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	57 8E D1 9D 05 BE 71 6D 19 18 B1 21 9D 77 75 41 86 3B B1 F6 B0 92 12 0C 62 AD 27 94 9F B6 80 85 76 16 8C 3C 06 B1 66 03 51 AE 59 29 30 73 0E 77 53 FE 93 B4 B8 A5 18 A3 7B 39 3D 53 02 2E 47 09 7C E8 1C 61 91 95 B6 41 D8 22 AF 45 22 6F 0A AB C6 3F C6 C3 52 82 6A D7 9B 5B 9E 28 BB CE 5A E7 6D 85 D3 05 68 67 EC 9E B4 99 86 5C 3A D5 33 90 57 60 23 2A 2F D6 00 EF E0 08 CB EF D5 8B DF 08 47 FD AF 7D 2A F0 87 0D D2 C6 8A E2 AA E3 A1 E9 4D B3 7A 19 C5 F4 0D 7B 6A 83 B7 65 8B EB F7 4D 22 B2 87 32 55 85 7B 83 FB E6 06 55 9D 28 31 ED	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9A 03 9F 21 03 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9F 4E 14 9C 01 9F 36 02	
9F 51	Application Currency Code [UICS]	01 56 - CHY	
9F 52	Application Default Action [UICS]	00 00	
9F 53	Consecutive Transaction Limit (International) [UICS]	00	
9F 54	Cumulative Total Transaction Amount Limit [UICS]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [UICS]	80	
9F 57	Issuer Country Code [UICS]	01 56 - CHN	
9F 58	Lower Consecutive Offline Limit (Card Check) [UICS]	00	



Tag	Element name	Data	v9.1
9F 59	Upper Consecutive Offline Limit (Card Check) [UICS]	00	
9F 5C	Cumulative Total Transaction Amount Upper Limit [UICS]	00 00 00 00 00 00	
9F 61	Cardholder ID Number [UICS]	31 31 30 31 30 31 31 39 38 36 30 36 32 30 30 30 31 30	
9F 62	Cardholder ID Type [UICS]	00	
9F 72	Consecutive Transaction Limit (International-Country) [UICS]	00	
9F 75	Cumulative Total Transaction Amount Limit - Dual Currency [UICS]	00 00 00 00 00 00	

1.4 Test Card FT26 - UnionPay, CO, 2-AID, Chinese, CHN, CNY

A contact-only, Dual-AID(UnionPay) credit card with an Issuer Country Code of 'China' and Currency Code of 'CNY'. Languages supported include Chinese. FOR USE IN U.S. ONLY.

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

1.4.1 Contact Interface: CVM List - UnionPay, AID A00000333010101, EMV

Cardholder Verification Method List ('4203 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Terminal supports CVM type	Next CVM
2	No CVM required	Always	Fail

1.4.2 Contact Interface: Application Tag data, AID A00000333010101

* Tag value changes with card usage

Tag	Element name	Data	v9.1
50	Application Label	55 6E 69 6F 6E 50 61 79 20 44 65 62 69 74 - 'UnionPay Debit'	
57	Track 2 Equivalent Data	62 10 94 80 00 00 00 37 D3 01 02 20 00 00 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	62 10 94 80 00 00 00 37	
5F 24	Application Expiration Date	30 10 31	
5F 25	Application Effective Date	05 10 31	
5F 28	Issuer Country Code	01 56 - CHN	
5F 2D	Language Preference	63 6E - 'cn' - Chinese	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile [UICS]	7D 00	
84	Dedicated File (DF) Name	A0 00 00 03 33 01 01 01	
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 21 03 9F 4E 14 9F 34 03	
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 9F 21 03 9B 02	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 42 03 1F 00	
8F	Certification Authority Public Key Index	08	



Tag	Element name	Data	v9.1
90	Issuer Public Key Certificate	04 E4 E7 9A B7 32 BB AD 27 9C FA 19 20 91 B0 A9 00 C0 ED 41 44 39 9F 2C F6 CA A5 04 63 F3 7C 0D 51 5E 03 C6 F5 62 D6 6C B3 B7 FA 56 4C 16 42 B7 2E E6 3E 17 B1 78 B9 AC 5E DC 3B BA 78 B3 2B 87 B7 FA 8C 48 F0 F8 34 14 F8 D3 33 3D 74 E5 F3 10 11 05 3D 7F 7B EE AF 66 CF EF D3 A7 B6 56 75 D5 9B BE 20 D9 4D 72 E4 1B 20 6E 6D CC B6 B6 45 0D 68 01 B5 6C 37 66 A9 BB C9 72 5D 11 A8 3B A1 00 72 26 65 97 49 24 97 19 0B 89 8B CC BF 3F C1 04	
92	Issuer Public Key Remainder	EE 31 35 C3 63 EF 63 89 99 A2 25 2D 2B FC A0 D4 8D 03 11 9C 94 9D 24 9B 88 F7 A4 28 AF 54 36 2E 77 2A EC F9	
93	Signed Static Application Data	15 A8 D2 B5 2D 74 4B 38 14 A8 E0 F2 A3 17 E8 72 A0 B3 B4 21 99 A0 B3 D7 9A 34 5D D5 A4 24 D1 C1 19 51 17 7D C7 DA 0C B9 7A 73 B7 FA A8 A9 17 AB 9B 52 C0 89 6C 40 15 CE E5 4F 10 96 1A A7 D7 1C 59 67 6B 92 96 6F FF F4 8E 7F CC C5 E2 39 E6 EA CC 5E 7B 23 CE 40 FD DB 3D 4C F7 4A CA 75 23 55 2B F0 A2 F8 58 28 66 78 80 EE 8D 02 82 23 DD 08 D7 17 DB 98 D6 48 02 0F BE 8A 71 6F 5E EF E1 24 24 F9 D5 AB DC FF 22 D3 13 DD D4 BC 4C 3D AE 45	
94	Application File Locator (AFL)	08 01 03 00 10 01 05 01 20 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 20	
9F 0D	Issuer Action Code - Default	FC 60 8C A8 00	
9F 0E	Issuer Action Code - Denial	00 10 00 00 00	
9F 0F	Issuer Action Code - Online	FC 68 8C F8 00	
9F 10	Issuer Application Data [UICS]	xx 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	55 49 43 43 20 44 45 42 49 54 - 'UICC DEBIT'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 14	Lower Consecutive Offline Limit	7F	
9F 17	Personal Identification Number (PIN) Try Counter	0F	
9F 1F	Track 1 Discretionary Data	32 30 31 35 30 37 33 31 31 36 34 37 32 39	
9F 23	Upper Consecutive Offline Limit	FF	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 1A 02	
9F 42	Application Currency Code	01 56	



Tag	Element name	Data	v9.1
9F 46	ICC Public Key Certificate	3D 60 E9 57 31 3A E1 51 9B 7F CF 1B 7B 0E C0 48 92 CD F8 1C D6 4F 7F 4F D7 EE 1B 6B 01 C5 23 66 A4 FE E0 4D CD 30 1D E7 B8 00 04 1E 86 D2 55 29 72 18 F1 9E 43 83 E6 4E 29 87 E1 09 DB D0 60 E2 93 E3 B4 8E 79 79 63 41 22 F1 2F 1A 3C 75 94 70 E7 5D D7 7E 57 D9 47 48 2A 17 46 0A 2B 27 F2 18 BB 2F 15 F4 96 1C 01 F3 AD 35 FE 13 5A CA 24 BC 5D FC FF DC 63 FE 7C 89 E1 DD 47 6D 2F A9 08 6E 91 02 97 53 0D AA 91 0B DE 00 29 DD 54 0C 2D 98	
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	53 D1 8A 33 C5 6B 85 59 9D 64 D5 0A 51 90 14 55 47 87 A6 E1 DE E7 4E 85 7E 5E D0 2A C9 64 0D 8E 64 E1 04 13 CF 0A 83 94 AD 27	
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	6B BA 43 AF B1 C7 44 2C F4 D8 ED D6 A8 14 93 31 DA 74 85 40 A9 0A FF A2 37 3F 7E D0 73 D7 E5 34 DA 43 35 80 0E A9 87 1E 67 D2 9E 04 A3 F5 DF FD 48 24 D5 89 2E 35 39 6C CB 94 15 05 13 42 26 B4 7F 6C 3A E9 E7 31 6A DA 00 94 80 64 EC EF 59 DA 48 22 7F 01 34 E1 70 86 36 87 26 6C 09 51 9E D4 47 76 48 75 15 99 40 57 E2 A5 E5 FC 44 E9 66 C8 81 CC 7B 9C 1C 4C 18 B8 6D C5 7E 5D F9 6F 93 68 42 FC 1E 06 83 F7 0A 5B D0 04 56 3B D8 38 A3 98	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9A 03 9F 21 03 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9F 4E 14 9C 01 9F 36 02	
9F 51	Application Currency Code [UICS]	01 56 - CHY	
9F 52	Application Default Action [UICS]	00 00	
9F 53	Consecutive Transaction Limit (International) [UICS]	00	
9F 54	Cumulative Total Transaction Amount Limit [UICS]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [UICS]	80	
9F 57	Issuer Country Code [UICS]	01 56 - CHN	
9F 58	Lower Consecutive Offline Limit (Card Check) [UICS]	00	
9F 59	Upper Consecutive Offline Limit (Card Check) [UICS]	00	
9F 5C	Cumulative Total Transaction Amount Upper Limit [UICS]	00 00 00 00 00 00	
9F 61	Cardholder ID Number [UICS]	31 31 30 31 30 31 31 39 38 36 30 36 32 30 30 30 31 30	
9F 62	Cardholder ID Type [UICS]	00	



Tag	Element name	Data	v9.1
9F 72	Consecutive Transaction Limit (International-Country) [UICS]	00	
9F 75	Cumulative Total Transaction Amount Limit - Dual Currency [UICS]	00 00 00 00 00 00	

1.4.3 Contact Interface: CVM List - UnionPay, AID A000000333010101, Low-Value

Cardholder Verification Method List ('4203 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Terminal supports CVM type	Next CVM
2	No CVM required	Always	Fail

1.4.4 Contact Interface: Application Tag data, AID A000000333010101

* Tag value changes with card usage

Tag	Element name	Data	v9.1
50	Application Label	55 6E 69 6F 6E 50 61 79 20 44 65 62 69 74 - 'UnionPay Debit'	
57	Track 2 Equivalent Data	62 10 94 80 00 00 00 37 D3 01 02 20 00 00 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	62 10 94 80 00 00 00 37	
5F 24	Application Expiration Date	30 10 31	
5F 25	Application Effective Date	05 10 31	
5F 28	Issuer Country Code	01 56 - CHN	
5F 2D	Language Preference	63 6E - 'cn' - Chinese	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile [UICS]	7D 00	
84	Dedicated File (DF) Name	A0 00 00 03 33 01 01 01	
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 21 03 9F 4E 14 9F 34 03	
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 9F 21 03 9B 02	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 42 03 1F 00	
8F	Certification Authority Public Key Index	08	
90	Issuer Public Key Certificate	04 E4 E7 9A B7 32 BB AD 27 9C FA 19 20 91 B0 A9 00 C0 ED 41 44 39 9F 2C F6 CA A5 04 63 F3 7C 0D 51 5E 03 C6 F5 62 D6 6C B3 B7 FA 56 4C 16 42 B7 2E E6 3E 17 B1 78 B9 AC 5E DC 3B BA 78 B3 2B 87 B7 FA 8C 48 F0 F8 34 14 F8 D3 33 3D 74 E5 F3 10 11 05 3D 7F 7B EE AF 66 CF EF D3 A7 B6 56 75 D5 9B BE 20 D9 4D 72 E4 1B 20 6E 6D CC B6 B6 45 0D 68 01 B5 6C 37 66 A9 BB C9 72 5D 11 A8 3B A1 00 72 26 65 97 49 24 97 19 0B 89 8B CC BF 3F C1 04	
92	Issuer Public Key Remainder	EE 31 35 C3 63 EF 63 89 99 A2 25 2D 2B FC A0 D4 8D 03 11 9C 94 9D 24 9B 88 F7 A4 28 AF 54 36 2E 77 2A EC F9	



Tag	Element name	Data	v9.1
93	Signed Static Application Data	15 A8 D2 B5 2D 74 4B 38 14 A8 E0 F2 A3 17 E8 72 A0 B3 B4 21 99 A0 B3 D7 9A 34 5D D5 A4 24 D1 C1 19 51 17 7D C7 DA 0C B9 7A 73 B7 FA A8 A9 17 AB 9B 52 C0 89 6C 40 15 CE E5 4F 10 96 1A A7 D7 1C 59 67 6B 92 96 6F FF F4 8E 7F CC C5 E2 39 E6 EA CC 5E 7B 23 CE 40 FD DB 3D 4C F7 4A CA 75 23 55 2B F0 A2 F8 58 28 66 78 80 EE 8D 02 82 23 DD 08 D7 17 DB 98 D6 48 02 0F BE 8A 71 6F 5E EF E1 24 24 F9 D5 AB DC FF 22 D3 13 DD D4 BC 4C 3D AE 45	
94	Application File Locator (AFL)	08 01 03 00 10 01 05 01 20 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 20	
9F 0D	Issuer Action Code - Default	FC 60 8C A8 00	
9F 0E	Issuer Action Code - Denial	00 10 00 00 00	
9F 0F	Issuer Action Code - Online	FC 68 8C F8 00	
9F 10	Issuer Application Data [UICS]	xx 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	55 49 43 43 20 44 45 42 49 54 - 'UICC DEBIT'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 14	Lower Consecutive Offline Limit	7F	
9F 17	Personal Identification Number (PIN) Try Counter	0F	
9F 1F	Track 1 Discretionary Data	32 30 31 35 30 37 33 31 31 36 34 37 32 39	
9F 23	Upper Consecutive Offline Limit	FF	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 1A 02	
9F 42	Application Currency Code	01 56	
9F 46	ICC Public Key Certificate	3D 60 E9 57 31 3A E1 51 9B 7F CF 1B 7B 0E C0 48 92 CD F8 1C D6 4F 7F 4F D7 EE 1B 6B 01 C5 23 66 A4 FE E0 4D CD 30 1D E7 B8 00 04 1E 86 D2 55 29 72 18 F1 9E 43 83 E6 4E 29 87 E1 09 DB D0 60 E2 93 E3 B4 8E 79 79 63 41 22 F1 2F 1A 3C 75 94 70 E7 5D D7 7E 57 D9 47 48 2A 17 46 0A 2B 27 F2 18 BB 2F 15 F4 96 1C 01 F3 AD 35 FE 13 5A CA 24 BC 5D FC FF DC 63 FE 7C 89 E1 DD 47 6D 2F A9 08 6E 91 02 97 53 0D AA 91 0B DE 00 29 DD 54 0C 2D 98	
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	53 D1 8A 33 C5 6B 85 59 9D 64 D5 0A 51 90 14 55 47 87 A6 E1 DE E7 4E 85 7E 5E D0 2A C9 64 0D 8E 64 E1 04 13 CF 0A 83 94 AD 27	



Tag	Element name	Data	v9.1
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	1C 1B 5E B6 1F 2F A3 D2 72 48 5C 72 B7 16 FD DA A5 1C 16 A8 B4 3E 8A F1 FB 5C 15 C1 9E C6 1F DA 32 91 3D 78 53 03 2C C3 A5 ED 10 D3 63 85 78 DD 48 CD 1A FE E6 54 44 11 CB AF B9 D4 59 B4 2F 83 5D B1 D2 4D A5 16 D5 FE 54 26 A4 FD A2 30 B9 BF C1 63 83 57 B3 13 6A FF 20 D7 98 CC 02 85 30 77 18 13 56 C5 62 6D 36 CC FB 60 BB AF 0F 71 21 86 E1 D9 A3 46 6A 33 C1 EF 01 9F AE 5A 9A 0B 25 CE 94 B8 81 12 72 38 C7 59 4F 91 DF FD 80 EE C4 DA	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9A 03 9F 21 03 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9F 4E 14 9C 01 9F 36 02	
9F 51	Application Currency Code [UICS]	01 56 - CHY	
9F 52	Application Default Action [UICS]	00 00	
9F 53	Consecutive Transaction Limit (International) [UICS]	00	
9F 54	Cumulative Total Transaction Amount Limit [UICS]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [UICS]	80	
9F 57	Issuer Country Code [UICS]	01 56 - CHN	
9F 58	Lower Consecutive Offline Limit (Card Check) [UICS]	00	
9F 59	Upper Consecutive Offline Limit (Card Check) [UICS]	00	
9F 5C	Cumulative Total Transaction Amount Upper Limit [UICS]	00 00 00 00 00 00	
9F 61	Cardholder ID Number [UICS]	31 31 30 31 30 31 31 39 38 36 30 36 32 30 30 30 31 30	
9F 62	Cardholder ID Type [UICS]	00	
9F 72	Consecutive Transaction Limit (International-Country) [UICS]	00	
9F 75	Cumulative Total Transaction Amount Limit - Dual Currency [UICS]	00 00 00 00 00 00	

1.4.5 Contact Interface: CVM List - UnionPay, AID A00000333010101, Low-Value, Dual-Currency

Cardholder Verification Method List ('4203 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Terminal supports CVM type	Next CVM
2	No CVM required	Always	Fail

1.4.6 Contact Interface: Application Tag data, AID A00000333010101

* Tag value changes with card usage

Tag	Element name	Data	v9.1
50	Application Label	55 6E 69 6F 6E 50 61 79 20 44 65 62 69 74 - 'UnionPay Debit'	



Tag	Element name	Data	v9.1
57	Track 2 Equivalent Data	62 10 94 80 00 00 00 37 D3 01 02 20 00 00 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	62 10 94 80 00 00 00 37	
5F 24	Application Expiration Date	30 10 31	
5F 25	Application Effective Date	05 10 31	
5F 28	Issuer Country Code	01 56 - CHN	
5F 2D	Language Preference	63 6E - 'cn' - Chinese	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile [UICS]	7D 00	
84	Dedicated File (DF) Name	A0 00 00 03 33 01 01 01	
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 21 03 9F 4E 14 9F 34 03	
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 9F 21 03 9B 02	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 42 03 1F 00	
8F	Certification Authority Public Key Index	08	
90	Issuer Public Key Certificate	04 E4 E7 9A B7 32 BB AD 27 9C FA 19 20 91 B0 A9 00 C0 ED 41 44 39 9F 2C F6 CA A5 04 63 F3 7C 0D 51 5E 03 C6 F5 62 D6 6C B3 B7 FA 56 4C 16 42 B7 2E E6 3E 17 B1 78 B9 AC 5E DC 3B BA 78 B3 2B 87 B7 FA 8C 48 F0 F8 34 14 F8 D3 33 3D 74 E5 F3 10 11 05 3D 7F 7B EE AF 66 CF EF D3 A7 B6 56 75 D5 9B BE 20 D9 4D 72 E4 1B 20 6E 6D CC B6 B6 45 0D 68 01 B5 6C 37 66 A9 BB C9 72 5D 11 A8 3B A1 00 72 26 65 97 49 24 97 19 0B 89 8B CC BF 3F C1 04	
92	Issuer Public Key Remainder	EE 31 35 C3 63 EF 63 89 99 A2 25 2D 2B FC A0 D4 8D 03 11 9C 94 9D 24 9B 88 F7 A4 28 AF 54 36 2E 77 2A EC F9	
93	Signed Static Application Data	15 A8 D2 B5 2D 74 4B 38 14 A8 E0 F2 A3 17 E8 72 A0 B3 B4 21 99 A0 B3 D7 9A 34 5D D5 A4 24 D1 C1 19 51 17 7D C7 DA 0C B9 7A 73 B7 FA A8 A9 17 AB 9B 52 C0 89 6C 40 15 CE E5 4F 10 96 1A A7 D7 1C 59 67 6B 92 96 6F FF F4 8E 7F CC C5 E2 39 E6 EA CC 5E 7B 23 CE 40 FD DB 3D 4C F7 4A CA 75 23 55 2B F0 A2 F8 58 28 66 78 80 EE 8D 02 82 23 DD 08 D7 17 DB 98 D6 48 02 0F BE 8A 71 6F 5E EF E1 24 24 F9 D5 AB DC FF 22 D3 13 DD D4 BC 4C 3D AE 45	
94	Application File Locator (AFL)	08 01 03 00 10 01 05 01 20 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 20	
9F 0D	Issuer Action Code - Default	FC 60 8C A8 00	
9F 0E	Issuer Action Code - Denial	00 10 00 00 00	
9F 0F	Issuer Action Code - Online	FC 68 8C F8 00	



Tag	Element name	Data	v9.1
9F 10	Issuer Application Data [UICS]	xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	55 49 43 43 20 44 45 42 49 54 - 'UICC DEBIT	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 14	Lower Consecutive Offline Limit	7F	
9F 17	Personal Identification Number (PIN) Try Counter	0F	
9F 1F	Track 1 Discretionary Data	32 30 31 35 30 37 33 31 31 36 34 37 32 39	
9F 23	Upper Consecutive Offline Limit	FF	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 1A 02	
9F 42	Application Currency Code	01 56	
9F 46	ICC Public Key Certificate	3D 60 E9 57 31 3A E1 51 9B 7F CF 1B 7B 0E C0 48 92 CD F8 1C D6 4F 7F 4F D7 EE 1B 6B 01 C5 23 66 A4 FE E0 4D CD 30 1D E7 B8 00 04 1E 86 D2 55 29 72 18 F1 9E 43 83 E6 4E 29 87 E1 09 DB D0 60 E2 93 E3 B4 8E 79 79 63 41 22 F1 2F 1A 3C 75 94 70 E7 5D D7 7E 57 D9 47 48 2A 17 46 0A 2B 27 F2 18 BB 2F 15 F4 96 1C 01 F3 AD 35 FE 13 5A CA 24 BC 5D FC FF DC 63 FE 7C 89 E1 DD 47 6D 2F A9 08 6E 91 02 97 53 0D AA 91 0B DE 00 29 DD 54 0C 2D 98	
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	53 D1 8A 33 C5 6B 85 59 9D 64 D5 0A 51 90 14 55 47 87 A6 E1 DE E7 4E 85 7E 5E D0 2A C9 64 0D 8E 64 E1 04 13 CF 0A 83 94 AD 27	
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	65 1D 4B 72 8F 00 72 9F 75 37 FC 94 B4 09 BF 20 B1 38 CE DF 53 A8 E5 B9 41 04 36 E3 2C 13 C1 3F 75 EA 76 E2 69 3A 87 33 59 E8 BF DA 2C CF BE 42 76 B2 A7 BB D9 AE 2C 22 B1 A1 04 6F 98 80 12 C5 CD C8 49 AF 6C EC B6 AF B9 AB 7E 53 68 AC 4A 27 97 9C 2C 8A 35 D0 E3 69 77 D6 A8 D6 E5 5F B5 51 8F 71 76 A8 C4 6E 04 5E 97 66 A9 F1 CC A3 37 30 CC CF 40 82 9F 54 18 4A E1 EC 7C CC 0A CF C7 0D EE 64 09 7B DA F0 34 9A 8B 86 8B 38 64 4B 93 0C	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9A 03 9F 21 03 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9F 4E 14 9C 01 9F 36 02	
9F 51	Application Currency Code [UICS]	01 56 - CHY	



Tag	Element name	Data	v9.1
9F 52	Application Default Action [UICS]	00 00	
9F 53	Consecutive Transaction Limit (International) [UICS]	00	
9F 54	Cumulative Total Transaction Amount Limit [UICS]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [UICS]	80	
9F 57	Issuer Country Code [UICS]	01 56 - CHN	
9F 58	Lower Consecutive Offline Limit (Card Check) [UICS]	00	
9F 59	Upper Consecutive Offline Limit (Card Check) [UICS]	00	
9F 5C	Cumulative Total Transaction Amount Upper Limit [UICS]	00 00 00 00 00 00	
9F 61	Cardholder ID Number [UICS]	31 31 30 31 30 31 31 39 38 36 30 36 32 30 30 30 31 30	
9F 62	Cardholder ID Type [UICS]	00	
9F 72	Consecutive Transaction Limit (International-Country) [UICS]	00	
9F 75	Cumulative Total Transaction Amount Limit - Dual Currency [UICS]	00 00 00 00 00 00	

1.4.7 Contact Interface: CVM List - UnionPay, AID A00000333010108, EMV

Cardholder Verification Method List ('4203 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
2	No CVM required	Always	Fail

1.4.8 Contact Interface: Application Tag data, AID A00000333010108

* Tag value changes with card usage

Tag	Element name	Data	v9.1
50	Application Label	55 6E 69 6F 6E 50 61 79 20 43 6F 6D 6D 6F 6E - 'UnionPay Debit'	
57	Track 2 Equivalent Data	62 10 94 80 00 00 02 68 D3 01 02 20 00 00 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	62 10 94 80 00 00 02 68	
5F 24	Application Expiration Date	30 10 31	
5F 25	Application Effective Date	05 10 31	
5F 28	Issuer Country Code	08 40 - USA	
5F 2D	Language Preference	63 6E - 'cn' - Chinese	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile [UICS]	7D 00	
84	Dedicated File (DF) Name	A0 00 00 03 33 01 01 08	
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 21 03 9F 4E 14 9F 34 03	
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 9F 21 03 9B 02	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 42 03 1F 00	
8F	Certification Authority Public Key Index	08	



Tag	Element name	Data	v9.1
90	Issuer Public Key Certificate	04 E4 E7 9A B7 32 BB AD 27 9C FA 19 20 91 B0 A9 00 C0 ED 41 44 39 9F 2C F6 CA A5 04 63 F3 7C 0D 51 5E 03 C6 F5 62 D6 6C B3 B7 FA 56 4C 16 42 B7 2E E6 3E 17 B1 78 B9 AC 5E DC 3B BA 78 B3 2B 87 B7 FA 8C 48 F0 F8 34 14 F8 D3 33 3D 74 E5 F3 10 11 05 3D 7F 7B EE AF 66 CF EF D3 A7 B6 56 75 D5 9B BE 20 D9 4D 72 E4 1B 20 6E 6D CC B6 B6 45 0D 68 01 B5 6C 37 66 A9 BB C9 72 5D 11 A8 3B A1 00 72 26 65 97 49 24 97 19 0B 89 8B CC BF 3F C1 04	
92	Issuer Public Key Remainder	EE 31 35 C3 63 EF 63 89 99 A2 25 2D 2B FC A0 D4 8D 03 11 9C 94 9D 24 9B 88 F7 A4 28 AF 54 36 2E 77 2A EC F9	
93	Signed Static Application Data	54 39 17 EC 8C A4 3D 62 2D E9 4E 46 30 49 51 1B 40 9B 6F 4D 97 53 88 50 3B 36 D8 83 86 B8 FA D3 5F 99 EE 06 A5 0B A0 CB 3F E0 9D 8B 47 DA 11 85 CF BA 6E A1 7A D2 A7 EC 8A ED 1E 96 FF DB 75 16 4D 0D 62 4D 59 B8 C4 62 BD AA B4 D9 EA AB 81 1B 30 56 F8 FE B8 C5 35 FF 73 FB 86 27 A7 E0 8E 51 A4 96 35 41 A8 18 63 B8 93 9F 80 A8 E5 40 8C E7 19 4B A7 BD 54 10 00 6D B5 B5 1F DB 9F D6 B3 F3 83 33 C1 FC 73 20 44 C3 D4 8C 47 76 E0 07 BF 2D	
94	Application File Locator (AFL)	08 01 03 00 10 01 05 01 20 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 20	
9F 0D	Issuer Action Code - Default	FC 60 8C A8 00	
9F 0E	Issuer Action Code - Denial	00 10 00 00 00	
9F 0F	Issuer Action Code - Online	FC 68 8C F8 00	
9F 10	Issuer Application Data [UICS]	xx 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	55 6E 69 6F 6E 50 61 79 20 43 6F 6D 6D 6F 6E - 'UnionPay Common'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 14	Lower Consecutive Offline Limit	7F	
9F 17	Personal Identification Number (PIN) Try Counter	0F	
9F 1F	Track 1 Discretionary Data	32 30 31 35 30 37 33 31 31 36 34 37 32 39	
9F 23	Upper Consecutive Offline Limit	FF	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 1A 02	
9F 42	Application Currency Code	08 40	



Tag	Element name	Data	v9.1
9F 46	ICC Public Key Certificate	21 99 BB 20 28 28 60 50 0F 57 E0 46 CA A5 7A 27 D7 AE 97 08 B0 86 36 6A B4 2A 83 90 72 B1 FA A9 16 9E E4 28 C4 12 EE 17 3A 21 12 96 01 0A 97 92 E5 5A B8 95 D9 C1 C2 BD 85 DC 7C 55 5B 08 CC B3 4B 54 1C AA 10 09 52 C0 50 DF 8A 21 C7 EE 4C D3 F6 82 00 57 FE 71 97 6C A7 17 09 BD A2 F3 39 63 25 B6 54 4A 70 90 9D 65 26 F4 B3 4E 4A E2 12 CE C0 30 05 53 6F B5 A7 A7 46 2F D5 3B 17 47 C8 7C E3 69 97 AF 05 76 58 52 8A 39 14 0F 5A C0 BB E6	
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	28 07 0F D3 9A 0E 4A 4F 84 D3 65 76 EE 57 87 D6 CB 48 98 13 83 4A 7E FE 67 D5 C9 D1 F9 7A B8 1A DB 0F 98 99 7F 48 AB 2E 96 0F	
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	4C 2A D8 21 28 F2 CA D7 96 DD EB 2D AB D1 21 34 9F 5D 25 9E C9 EC C1 F8 6D E0 61 70 56 95 A2 73 3E DB 83 EE 3B 8B CA 2B 86 FA 9C 36 34 B4 D9 3D D4 5D 37 D6 44 A9 08 D9 90 4E 4F B7 79 54 A6 7F 03 D1 B9 84 2F 9D 68 95 71 65 DA E9 29 17 0A 56 B3 DD 5B 62 2E 4B 12 2B 7C 4F 00 99 17 DE E4 D7 F4 53 0F 39 B8 0C FE F7 73 55 34 3E 11 CC C7 D4 B4 BD F0 7C 4C 7D 2C 0B 65 C7 17 80 D7 62 6B 74 EF 02 29 0F C3 17 DD FA 54 DE A4 5C BC 46 93 D5	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9A 03 9F 21 03 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9F 4E 14 9C 01 9F 36 02	
9F 51	Application Currency Code [UICS]	08 40 - USD	
9F 52	Application Default Action [UICS]	00 00	
9F 53	Consecutive Transaction Limit (International) [UICS]	00	
9F 54	Cumulative Total Transaction Amount Limit [UICS]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [UICS]	80	
9F 57	Issuer Country Code [UICS]	08 40 - USA	
9F 58	Lower Consecutive Offline Limit (Card Check) [UICS]	00	
9F 59	Upper Consecutive Offline Limit (Card Check) [UICS]	00	
9F 5C	Cumulative Total Transaction Amount Upper Limit [UICS]	00 00 00 00 00 00	
9F 61	Cardholder ID Number [UICS]	31 31 30 31 30 31 31 39 38 36 30 36 32 30 30 30 31 30	
9F 62	Cardholder ID Type [UICS]	00	



Tag	Element name	Data	v9.1
9F 72	Consecutive Transaction Limit (International-Country) [UICS]	00	
9F 75	Cumulative Total Transaction Amount Limit - Dual Currency [UICS]	00 00 00 00 00 00	

1.4.9 Contact Interface: CVM List - UnionPay, AID A000000333010108, Low-Value

Cardholder Verification Method List ('4203 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Terminal supports CVM type	Next CVM
2	No CVM required	Always	Fail

1.4.10 Contact Interface: Application Tag data, AID A000000333010108

* Tag value changes with card usage

Tag	Element name	Data	v9.1
50	Application Label	55 6E 69 6F 6E 50 61 79 20 43 6F 6D 6D 6F 6E	
57	Track 2 Equivalent Data	62 10 94 80 00 00 02 68 D3 01 02 20 00 00 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	62 10 94 80 00 00 02 68	
5F 24	Application Expiration Date	30 10 31	
5F 25	Application Effective Date	05 10 31	
5F 28	Issuer Country Code	08 40 - USA	
5F 2D	Language Preference	63 6E - 'cn' (Chinese)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile [UICS]	7D 00	
84	Dedicated File (DF) Name	A0 00 00 03 33 01 01 08	
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 21 03 9F 4E 14 9F 34 03	
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 9F 21 03 9B 02	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 42 03 1F 00	
8F	Certification Authority Public Key Index	08	
90	Issuer Public Key Certificate	04 E4 E7 9A B7 32 BB AD 27 9C FA 19 20 91 B0 A9 00 C0 ED 41 44 39 9F 2C F6 CA A5 04 63 F3 7C 0D 51 5E 03 C6 F5 62 D6 6C B3 B7 FA 56 4C 16 42 B7 2E E6 3E 17 B1 78 B9 AC 5E DC 3B BA 78 B3 2B 87 B7 FA 8C 48 F0 F8 34 14 F8 D3 33 3D 74 E5 F3 10 11 05 3D 7F 7B EE AF 66 CF EF D3 A7 B6 56 75 D5 9B BE 20 D9 4D 72 E4 1B 20 6E 6D CC B6 B6 45 0D 68 01 B5 6C 37 66 A9 BB C9 72 5D 11 A8 3B A1 00 72 26 65 97 49 24 97 19 0B 89 8B CC BF 3F C1 04	
92	Issuer Public Key Remainder	EE 31 35 C3 63 EF 63 89 99 A2 25 2D 2B FC A0 D4 8D 03 11 9C 94 9D 24 9B 88 F7 A4 28 AF 54 36 2E 77 2A EC F9	



Tag	Element name	Data	v9.1
93	Signed Static Application Data	54 39 17 EC 8C A4 3D 62 2D E9 4E 46 30 49 51 1B 40 9B 6F 4D 97 53 88 50 3B 36 D8 83 86 B8 FA D3 5F 99 EE 06 A5 0B A0 CB 3F E0 9D 8B 47 DA 11 85 CF BA 6E A1 7A D2 A7 EC 8A ED 1E 96 FF DB 75 16 4D 0D 62 4D 59 B8 C4 62 BD AA B4 D9 EA AB 81 1B 30 56 F8 FE B8 C5 35 FF 73 FB 86 27 A7 E0 8E 51 A4 96 35 41 A8 18 63 B8 93 9F 80 A8 E5 40 8C E7 19 4B A7 BD 54 10 00 6D B5 B5 1F DB 9F D6 B3 F3 83 33 C1 FC 73 20 44 C3 D4 8C 47 76 E0 07 BF 2D	
94	Application File Locator (AFL)	08 01 03 00 10 01 05 01 20 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 20	
9F 0D	Issuer Action Code - Default	FC 60 8C A8 00	
9F 0E	Issuer Action Code - Denial	00 10 00 00 00	
9F 0F	Issuer Action Code - Online	FC 68 8C F8 00	
9F 10	Issuer Application Data [UICS]	xx 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	55 6E 69 6F 6E 50 61 79 20 43 6F 6D 6D 6F 6E - 'UnionPay Common'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 14	Lower Consecutive Offline Limit	7F	
9F 17	Personal Identification Number (PIN) Try Counter	0F	
9F 1F	Track 1 Discretionary Data	32 30 31 35 30 37 33 31 31 36 34 37 32 39	
9F 23	Upper Consecutive Offline Limit	FF	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 1A 02	
9F 42	Application Currency Code	08 40	
9F 46	ICC Public Key Certificate	21 99 BB 20 28 28 60 50 0F 57 E0 46 CA A5 7A 27 D7 AE 97 08 B0 86 36 6A B4 2A 83 90 72 B1 FA A9 16 9E E4 28 C4 12 EE 17 3A 21 12 96 01 0A 97 92 E5 5A B8 95 D9 C1 C2 BD 85 DC 7C 55 5B 08 CC B3 4B 54 1C AA 10 09 52 C0 50 DF 8A 21 C7 EE 4C D3 F6 82 00 57 FE 71 97 6C A7 17 09 BD A2 F3 39 63 25 B6 54 4A 70 90 9D 65 26 F4 B3 4E 4A E2 12 CE C0 30 05 53 6F B5 A7 A7 46 2F D5 3B 17 47 C8 7C E3 69 97 AF 05 76 58 52 8A 39 14 0F 5A C0 BB E6	
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	28 07 0F D3 9A 0E 4A 4F 84 D3 65 76 EE 57 87 D6 CB 48 98 13 83 4A 7E FE 67 D5 C9 D1 F9 7A B8 1A DB 0F 98 99 7F 48 AB 2E 96 0F	



Tag	Element name	Data	v9.1
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	C0 46 D5 69 02 FB DF 23 20 DD 84 75 E8 8C 5A B2 DD DA 24 9A 8D D8 DA 31 B8 03 94 DD 18 30 35 50 E4 67 30 60 B9 E1 F0 C9 60 BB 88 6F D2 28 08 6B D2 C9 5E D6 C2 BA B1 CB A5 CA 28 73 41 38 1E 77 02 82 6A A1 2C C8 70 80 05 7F 4C BC 6F E3 DC 1F DD 5C 0E 79 A0 E2 92 C9 46 FE 88 F6 17 1B FD 31 AF 31 D0 6D B2 D1 AF 61 D1 BE 61 16 94 A2 0D 92 FF 87 BB D7 6D 2A B2 82 E9 12 0D BA CC 0B 91 C9 44 EC 16 3F 4D 35 17 82 3B 37 F7 5B 26 31 C3 44	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9A 03 9F 21 03 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9F 4E 14 9C 01 9F 36 02	
9F 51	Application Currency Code [UICS]	08 40 - USD	
9F 52	Application Default Action [UICS]	00 00	
9F 53	Consecutive Transaction Limit (International) [UICS]	00	
9F 54	Cumulative Total Transaction Amount Limit [UICS]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [UICS]	80	
9F 57	Issuer Country Code [UICS]	08 40 - USA	
9F 58	Lower Consecutive Offline Limit (Card Check) [UICS]	00	
9F 59	Upper Consecutive Offline Limit (Card Check) [UICS]	00	
9F 5C	Cumulative Total Transaction Amount Upper Limit [UICS]	00 00 00 00 00 00	
9F 61	Cardholder ID Number [UICS]	31 31 30 31 30 31 31 39 38 36 30 36 32 30 30 30 31 30	
9F 62	Cardholder ID Type [UICS]	00	
9F 72	Consecutive Transaction Limit (International-Country) [UICS]	00	
9F 75	Cumulative Total Transaction Amount Limit - Dual Currency [UICS]	00 00 00 00 00 00	

1.4.11 Contact Interface: CVM List - UnionPay, AID A00000333010108, Low-Value, Dual-Currency

Cardholder Verification Method List ('4203 1F00')			
CVM	Verification Method	Conditions	If unsuccessful
1	Online PIN	Terminal supports CVM type	Next CVM
2	No CVM required	Always	Fail

1.4.12 Contact Interface: Application Tag data, AID A00000333010108

* Tag value changes with card usage

Tag	Element name	Data	v9.1
50	Application Label	55 6E 69 6F 6E 50 61 79 20 43 6F 6D 6D 6F 6E	



Tag	Element name	Data	v9.1
57	Track 2 Equivalent Data	62 10 94 80 00 00 02 68 D3 01 02 20 00 00 00 00 00 00 0F	
5A	Application Primary Account Number (PAN)	62 10 94 80 00 00 02 68	
5F 24	Application Expiration Date	30 10 31	
5F 25	Application Effective Date	05 10 31	
5F 28	Issuer Country Code	08 40 - USA	
5F 2D	Language Preference	63 6E - 'cn' (Chinese)	
5F 30	Service Code	02 20	
5F 34	Application PAN Sequence Number	01	
82	Application Interchange Profile [UICS]	7D 00	
84	Dedicated File (DF) Name	A0 00 00 03 33 01 01 08	
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 21 03 9F 4E 14 9F 34 03	
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 9F 21 03 9B 02	
8E	Cardholder Verification Method (CVM) List	00 00 00 00 00 00 00 00 42 03 1F 00	
8F	Certification Authority Public Key Index	08	
90	Issuer Public Key Certificate	04 E4 E7 9A B7 32 BB AD 27 9C FA 19 20 91 B0 A9 00 C0 ED 41 44 39 9F 2C F6 CA A5 04 63 F3 7C 0D 51 5E 03 C6 F5 62 D6 6C B3 B7 FA 56 4C 16 42 B7 2E E6 3E 17 B1 78 B9 AC 5E DC 3B BA 78 B3 2B 87 B7 FA 8C 48 F0 F8 34 14 F8 D3 33 3D 74 E5 F3 10 11 05 3D 7F 7B EE AF 66 CF EF D3 A7 B6 56 75 D5 9B BE 20 D9 4D 72 E4 1B 20 6E 6D CC B6 B6 45 0D 68 01 B5 6C 37 66 A9 BB C9 72 5D 11 A8 3B A1 00 72 26 65 97 49 24 97 19 0B 89 8B CC BF 3F C1 04	
92	Issuer Public Key Remainder	EE 31 35 C3 63 EF 63 89 99 A2 25 2D 2B FC A0 D4 8D 03 11 9C 94 9D 24 9B 88 F7 A4 28 AF 54 36 2E 77 2A EC F9	
93	Signed Static Application Data	54 39 17 EC 8C A4 3D 62 2D E9 4E 46 30 49 51 1B 40 9B 6F 4D 97 53 88 50 3B 36 D8 83 86 B8 FA D3 5F 99 EE 06 A5 0B A0 CB 3F E0 9D 8B 47 DA 11 85 CF BA 6E A1 7A D2 A7 EC 8A ED 1E 96 FF DB 75 16 4D 0D 62 4D 59 B8 C4 62 BD AA B4 D9 EA AB 81 1B 30 56 F8 FE B8 C5 35 FF 73 FB 86 27 A7 E0 8E 51 A4 96 35 41 A8 18 63 B8 93 9F 80 A8 E5 40 8C E7 19 4B A7 BD 54 10 00 6D B5 B5 1F DB 9F D6 B3 F3 83 33 C1 FC 73 20 44 C3 D4 8C 47 76 E0 07 BF 2D	
94	Application File Locator (AFL)	08 01 03 00 10 01 05 01 20 01 01 00	
9F 07	Application Usage Control	FF 00	
9F 08	Application Version Number	00 20	
9F 0D	Issuer Action Code - Default	FC 60 8C A8 00	
9F 0E	Issuer Action Code - Denial	00 10 00 00 00	
9F 0F	Issuer Action Code - Online	FC 68 8C F8 00	



Tag	Element name	Data	v9.1
9F 10	Issuer Application Data [UICS]	xx *	
9F 11	Issuer Code Table Index	01	
9F 12	Application Preferred Name	55 6E 69 6F 6E 50 61 79 20 43 6F 6D 6D 6F 6E - 'UnionPay Common'	
9F 13	Last Online Application Transaction Counter (ATC) Register	xx xx *	
9F 14	Lower Consecutive Offline Limit	7F	
9F 17	Personal Identification Number (PIN) Try Counter	0F	
9F 1F	Track 1 Discretionary Data	32 30 31 35 30 37 33 31 31 36 34 37 32 39	
9F 23	Upper Consecutive Offline Limit	FF	
9F 27	Cryptogram Information Data (CID)	80	
9F 32	Issuer Public Key Exponent	03	
9F 36	Application Transaction Counter (ATC)	xx xx *	
9F 38	Processing Options Data Object List (PDOL)	9F 1A 02	
9F 42	Application Currency Code	08 40	
9F 46	ICC Public Key Certificate	21 99 BB 20 28 28 60 50 0F 57 E0 46 CA A5 7A 27 D7 AE 97 08 B0 86 36 6A B4 2A 83 90 72 B1 FA A9 16 9E E4 28 C4 12 EE 17 3A 21 12 96 01 0A 97 92 E5 5A B8 95 D9 C1 C2 BD 85 DC 7C 55 5B 08 CC B3 4B 54 1C AA 10 09 52 C0 50 DF 8A 21 C7 EE 4C D3 F6 82 00 57 FE 71 97 6C A7 17 09 BD A2 F3 39 63 25 B6 54 4A 70 90 9D 65 26 F4 B3 4E 4A E2 12 CE C0 30 05 53 6F B5 A7 A7 46 2F D5 3B 17 47 C8 7C E3 69 97 AF 05 76 58 52 8A 39 14 0F 5A C0 BB E6	
9F 47	ICC Public Key Exponent	01 00 01	
9F 48	ICC Public Key Remainder	28 07 0F D3 9A 0E 4A 4F 84 D3 65 76 EE 57 87 D6 CB 48 98 13 83 4A 7E FE 67 D5 C9 D1 F9 7A B8 1A DB 0F 98 99 7F 48 AB 2E 96 0F	
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	75 5A 6C DA C6 46 38 A2 D4 EE D3 6A 0C CB B2 B7 10 6E 10 69 D4 1E F5 1B 29 9E 57 4A D1 00 16 5F F5 41 8C 32 47 76 78 37 77 7C 11 99 E6 1C 2E 51 86 C9 4B 87 60 4C 4A 48 6F B4 00 EA 2F 92 B9 9A 45 16 99 E3 68 30 3E 35 17 A7 F1 89 5A E3 ED 15 9C CC 03 0B 59 30 F2 41 E9 6B FA A9 96 F4 E1 FD 48 89 71 12 64 B5 C4 AE FC A7 F8 BC B3 39 82 BF 02 B1 E4 BF 54 87 A6 F5 AA AC 99 1E B9 8B D9 B7 FA 57 73 D9 7A 54 E0 38 26 A3 27 90 30 E6 BE 76	
9F 4D	Transaction Log Entry	0B 0A	
9F 4F	Transaction Log Format	9A 03 9F 21 03 9F 02 06 9F 03 06 9F 1A 02 5F 2A 02 9F 4E 14 9C 01 9F 36 02	



Tag	Element name	Data	v9.1
9F 51	Application Currency Code [UICS]	08 40 - USD	
9F 52	Application Default Action [UICS]	00 00	
9F 53	Consecutive Transaction Limit (International) [UICS]	00	
9F 54	Cumulative Total Transaction Amount Limit [UICS]	00 00 00 00 00 00	
9F 56	Issuer Authentication Indicator [UICS]	80	
9F 57	Issuer Country Code [UICS]	08 40 - USA	
9F 58	Lower Consecutive Offline Limit (Card Check) [UICS]	00	
9F 59	Upper Consecutive Offline Limit (Card Check) [UICS]	00	
9F 5C	Cumulative Total Transaction Amount Upper Limit [UICS]	00 00 00 00 00 00	
9F 61	Cardholder ID Number [UICS]	31 31 30 31 30 31 31 39 38 36 30 36 32 30 30 30 31 30	
9F 62	Cardholder ID Type [UICS]	00	
9F 72	Consecutive Transaction Limit (International-Country) [UICS]	00	
9F 75	Cumulative Total Transaction Amount Limit - Dual Currency [UICS]	00 00 00 00 00 00	



Chapter 2 - ASCII Character Conversion Chart

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