Technical Specifications on Bankcard Interoperability

(Version 2.0)

Part II Online Message

(For the use of CUP Network Participants outside Mainland of China)

December 2007

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Using this Document

Purpose

This Part is one of the six parts comprising the *Technical Specifications on Bankcard Interoperability*. The document describes the specifications on the structure, format and field content of online message between Participants and CUP.

Audience

The audience of this manual are the staff from China Unionpay (hereinafter referred to as CUP) and CUP Network Participants.

Time Expressed

CUP has operation centers in several locations including Shanghai, Beijing and Hong Kong. For operational purpose, the time frame in this manual, unless particularly indicated, refers to "Beijing time".

Coordinated Universal Time (UTC) is the basic measuring time throughout the world. Beijing time is 8 hours ahead of UTC. Also, there is no Daylight Saving Time in China.

Unless otherwise specified, the Day in this Volume refers to the calendar day and the Business Day refers to the working day subject to local regulations of the country where the processing Participant is located.

Revisions

This new version fully replaces the version of CUP 006.1-2005, and the main revsion in this new version is as below:

1. Add to support CUPsecure E-commerce transaction
2. Add to support Branding Service Fee
3. Add to support PBOC e-wallet/bankbook transaction
4. Add to support the characteristic service for granger's bank card
5. Others
    a) Change to generate original currency and FX rate information file by CUPS
    b) Delete the risk information sharing file related to negative information
    c) Add new applicable condition "failed CVN verification" for response code "05"
    d) Update IIN, revise the standard of region code in IIN
    e) Revise the usage of field 43

f) Add to support the reciprocal ATM acquiring business

g) Revise reference standard for MCC, which must be compliant with <Financial Retail Business-Merchant Category Code> (GB/T20548-2006)

CUP will periodically issue revisions to this document as enhancements and changes are implemented, or as corrections are required. Occasionally, revisions or additions to this document will be published in an *Operations Bulletin*.

Support

Please address your questions to the service teams as follows:

- For questions related to this manual:

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- For questions related to technical issues:

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1 Scope

This Part describes the specifications on the structure, format and field content of online message between Participants and CUP.

This Part applies to all CUP Network Participants.

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2 References

The terms and conditions of the following documents quoted by this Specification have become the terms and conditions of the Specification. The modification list (excluding corrected contents) or revised edition attached to the dated documents shall not apply to this Standard. However, Participants may study whether to apply the latest versions of such documents. The latest versions of non-dated documents shall apply to the Specification.

- GB/T 2260 *Codes of the Administrative Regions of PRC*
- GB/T 2659-94 *Codes of the Countries and Regions*
- GB/T 4754-94 *Category and Codes of National Economic Sectors*
- GB/T 12406-94 *Codes of Currencies and Funds*
- *GB/T 15150-94* *Bankcard Originating A Message-Specifications on Message Exchange-Content of a Financial Transaction（ISO8583-1987）*
- *JR/T 0025-2005* *Regulations on China Finance IC Card*
- *National Bankcard Office* *Technical Specifications on Bankcard Interoperability V1.0, January 2001*
- *National Bankcard Office* *Business Specifications on Bankcard Interoperability, January 2001*
- *CUP* *Volume II Business Rules*
- *CUP* *Codes of Regions for CUP Bankcard Interbank Business*
- *EMV2000* *Integrated Circuit Card Specification for Payment Systems: Book 1 ~ Book 4*

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3 Terms and Definitions

The following terms and definitions are applied to this Specification.

CUPS

CUP central system

CUP Public Service Platform

The Internet-based service platform provided to Participants by CUP. The Platform is capable of providing dispute processing and reporting services.

Acquirer

The party accepting the transaction (i.e. the party of the transaction terminal). The Acquirer is responsible for the generation and switch of online transaction information, as well as the collection, processing and submission of settlement data.

Issuer

The party which maintains the cardholder's account (i.e. the party approving authorization). If the Issuer system is connected to CUP system through its regional center or CUP regional center, the Issuer in this Specification refers to the Issuer system and its regional center/CUP regional center.

Transfer-In

The transfer-in party in the transfer transaction.

Transfer-Out

The transfer-out party in the transfer transaction.

Bankcard Switching Center

The bankcard switching center in the Specifications refers to CUP system.

The center is responsible for the switch of inter-bank bankcard transaction information and collection, clearing and distribution of settlement data.

Pre-authorization

The acknowledgement and guarantee of payment to the Acquirer from the Issuer.

Bank Card

A payment tool issued to the public by commercial banks, other financial institutions and postal savings institutions, with all or part of the following functions: purchase, transfer, cash deposit and withdrawal, etc.

Request

A message that triggers a series of interactive messages

Response Code

A code indicating the processing result, which is sent back to the sender by the receiver who receives the request or advice.

Reversal

A special transaction initiated by the sender of request, used to inform the receiver that the previous authorization or financial transaction is not completed and the processing result shall be cancelled.

Store and Forward

A mechanism where the sender stores the message in the store and forward queue and sends it repeatedly at intervals within certain times.

Settlement

The whole process that the net amount is calculated and submitted based on the transaction data, and the fund transfer is completed.

Transaction

The aggregate of relevant information to achieve the intention of original information introducer, usually ending with a debit or credit transaction. The subsequent revision or cancellation can be considered as an independent transaction aggregate.

Single Message

A transaction processing mode by which the Acquirer submits the transaction information to the Issuer, and then CUP conducts settlement based on CUP system log. The Acquirer needs not to submit the settlement file.

Single-message Transaction

A transaction whose information is submitted only once, and used for authorization, clearing and settlement. Such transaction is also referred to as “full financial transaction”, that is, authorization, clearing and cardholder account billing are all online processed.

Dual Message

A transaction processing mode by which the Acquirer first submits the authorization request to the Issuer and then submits the settlement file to the Issuer later.

Dual-message Transaction

A transaction whose information is submitted twice, the first time only for authorization and the second time for clearing and settlement. That is, real-time processing for authorization and non real-time processing for clearing and settlement

Advice

A message sent to the relevant party about the actions that have already taken place, with no approval required.

Host Settlement

A settlement agreement between two institutions. When the settlement is initiated by one party and based on its data, such party calls such processing as host settlement.

Non-Host Settlement

A settlement agreement between two institutions. When the settlement is initiated by one party and based on its data, the other party calls such processing as non-host settlement.

PBOC Standards

PBOC is the acronym of People's Bank of China. In this Specifications, it specifically refers to *China Financial Integrated Circuit (IC) Card Specifications* (V2.0 1998) issued by PBOC.

EMV Standards

EMV is the acronym of EUROPAY, MASTERCARD and VISA. The IC card debit/credit application standard jointly formulated by these three companies is abbreviated as EMV Standards.

EMV Ready

According to the current PBOC debit/credit draft standard, supports the four basic functions, namely special information transfer, security authentication, transaction features and application of partial script by Issuers in case of stand-in authorization.

ARQC (Authorization Request Cryptogram)

ARQC is the abbreviation of authorization request cryptogram. ARQC is the application cryptogram generated by IC card in online transaction processing, which is to authenticate the validity of the card in the current transaction by the Issuer during the online card authentication.

ARPC (Authorization Response Cryptogram)

ARPC is the abbreviation of authorization response cryptogram. ARPC is the application cryptogram generated by the Issuer and returned to the terminal in online authorization message. It is used for IC card to verify whether the online authorization response comes from the real Issuer.

CUPSecure

The standard and requirement which is defined by CUP for bankcard e-commerce transaction on Internet.

CUP Secure Entry Mode

The secure certification mode under which CUP collects the secure information and transfer to issuing institution, and issuing institution completes the certification and related payment transaction.

Security Route Server; SR

Mainly used to provide directory service, i.e. find the issuing bank according to card number, check the processing mode selected by the issuing bank, and transfer the request and response message between the secure plug-in and CUP secure information entry server.

4 Message Structure

4.1 Message Structure

4.1.1 Explanation on Message Structure

The online transaction message includes four parts that are the message header, message type identifier, bitmap and message field. The structure is as follows.

Message Header	Message Type Identifier	Bitmap	Message Field

Figure 1 Message Structure

As the first element of the message, the message header records basic information of the message such as length, routing and batch number.

The message type identifier, the second element of the message, defines the general categories of message, e.g. financial message or management message.

The bitmap defines message fields which will appear in the message, including either one bitmap or two bitmaps. The number of bitmap is determined by transaction type. Bitmap 1 and bitmap 2 are used in magnetic stripe card transactions and IC card transactions. The difference between them is that IC card transactions will involve IC card characteristic information defined in Field 55. Bitmap 1 defines the fields from 2 to 64; bitmap 2 defines the fields from 66 to 128.

The message field section is the major part of the message. Most of message fields are defined by ISO 8583 and the others are defined and used by CUP. For detailed definition of message fields please refer to *Section 6*.

4.1.2 Analysis of Message Structure

The message structure is as follows.

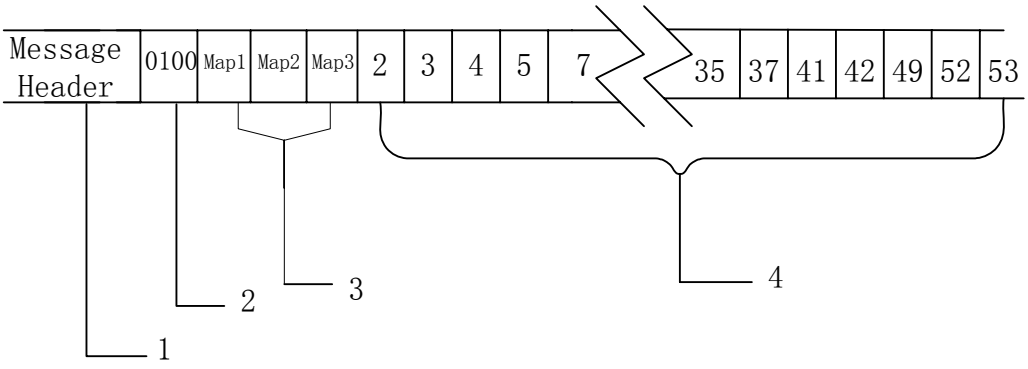


Figure 2 Message Structure

- 1. Message Header, please refer to *Section 4.2*.
- 2. Message Type Identifier, please refer to *Section 6*
- 3. Bitmap, please refer to *Section 4. 4*
- 4. Message Fields: please refer to *Section 6* for message field description,

Section 7 for field requirement on each message and *Section 5* for requirement on key fields.

4.2 Message Header

This Section describes the composition of message header and the usage of each field. The 'b' represents bit and the 'n' represents decimal number in this Section. In addition, all decimal numbers are coded in ASCII. The position of message header in message is as follows:

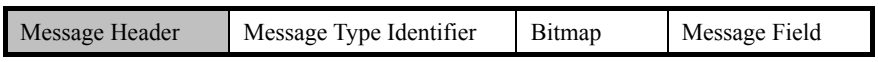


Figure 3 Position of Message Header

4.2.1 Position and Basic Explanation

Message header together with message type identifier, bitmap and message field composes of a complete message. Message header is required for all online messages.

The 8000# series messages for file transfer do not use message header.

4.2.1.1 Composition

The composition of message header is as follows:

Table 1 Composition of Message Header

Field	Field Name	Length (byte)
Field 1	Header Length	1
Field 2	Header Flag and Version	1
Field 3	Total Message Length	4
Field 4	Destination ID	11
Field 5	Source ID	11
Field 6	Reserved for Use	3
Field 7	Batch Number	1
Field 8	Transaction Information	8
Field 9	User Information	1
Field 10	Reject Code	5

46 bytes totally, and all fields should be filled.

Reject Code field is filled with "00000" in the message header generated by Participants. CUP system will fill in the field with position and reason of error when it finds any format or structure error in the message. Meanwhile, CUP system will transmit the original message header and content of the message to the message initiator to inform of the message error so that the message initiator could process accordingly. Participants cannot generate but may receive the Reject Code field with non-all-zero. Therefore, the message generated by Participants and the message generated by CUP system with no error detected, are shown in the following figure:

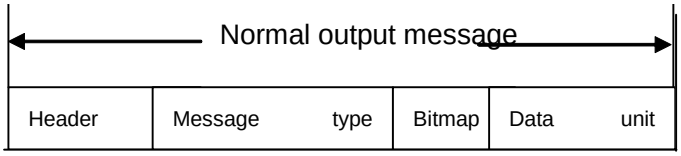


Figure 4 Normal Output Message Structure

The message generated by CUP system with error detected is shown as follows:

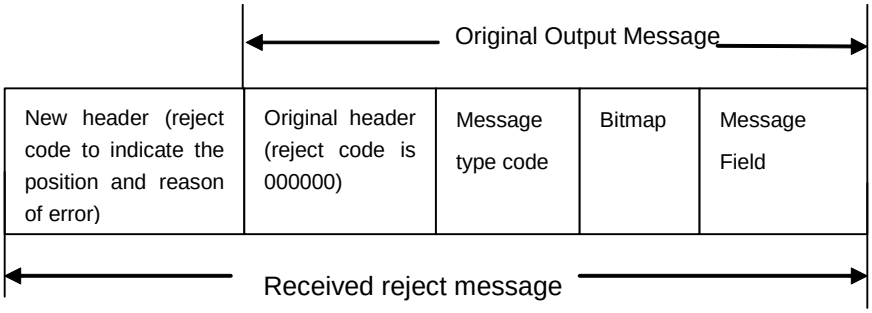


Figure 5 Abnormal Output Message Structure

4.2.1.2 Structure

When a Participant generates a request or advice message, it needs to construct a message header according to the message data to be sent. When a Participant receives a request or advice message, it must store some information in the message header for responding to the sender. The fields to be stored are Field 4, 5, 6, 7, 8 and 9.

When a Participant generates response message, it should construct the message header of the response message according to the information stored from the message header of the request message. The requirement is as follows:

a) Two scenarios of source ID and destination ID processing.

- When the response message is generated by the Participant which connects with CUP system directly, the values of Field 4 and Field 5 in the message header of response message will be the value of Field 5 (source ID) and Field 4(destination ID) in the message header of request message sent by CUP system. An illustration is as follows (suppose the Acquiring Institution Identification Code is 01030000, the Issuer ID is 01020000 and CUP ID is 00010000):

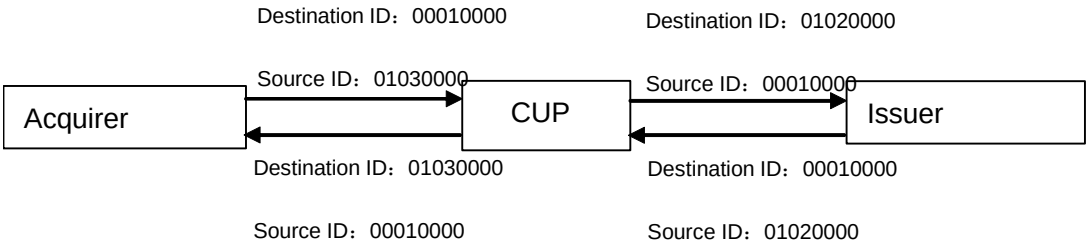


Figure 6 Illustration 1 of Source ID and Destination ID in Header

- When the response message is generated by the Participant's branch which connects with CUP system through the Participant, the value of field 5 (source ID) in the message header of response message is the ID of the institution who actually generates the response message. The illustration is as follows (suppose the Acquiring Institution Identification Code is 01030000, the Issuer ID is 01020000, the branch ID of the Issuer is 01026400 and CUP ID is 00010000):

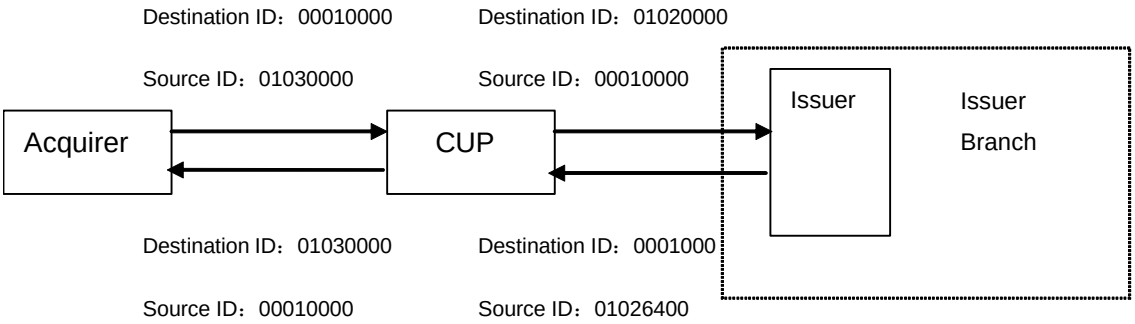


Figure 7 Illustration 2 of Source ID and Destination ID in Header

b) The values of the following fields should be returned unchanged: Field 7 (batch number), Field 6 (CUP system internal reserved code), Field 8 (transaction information) and Field 9 (user information); Participants generate the value of other fields according to the related requirement.

4.2.2 Field Description

This Specifications will illustrate the meaning of each field according to the Table 2:

Table 2 Field Elements Description

Element	Description
Attribute	Length and format of field
Generator	Showing which institutions can set non-zero value in the field
Description	Content and definition of the field
Usage	Some special limitations in processing the field

Remark	Other explanations
Field Value	Available range and limitation of field value
Reject Code	Code which indicates the error in the rejected header

4.2.2.1 Field 1 Header-Length

Attribute
8 bit binary data

Generator
Participants, CUP

Description
Length of message header in byte

Usage
To specify the length of the message header

Field Value
The field value must be 46

Reject Code
00015= invalid value

4.2.2.2 Field 2 Header Flag and Version

Attribute
8 bit binary data

Generator
Participants, CUP

Description
The first bit of this field represents:

- 0 indicating a production message
- 1 indicating a testing message

This bit is filled by the transaction initiator and remains unchanged during transmission.

The last 7 bits define the message format version and its current value is 000 0001.

Reject Code
00025 ＝invalid value

4.2.2.3 Field 3 Total Message Length

Attribute
n4, 4 numerics with fixed length

Generator
Participants, CUP

Description

This field specifies the total number of bytes, namely the total length of a message from the beginning of the message header to the end of the message, which is as follows:

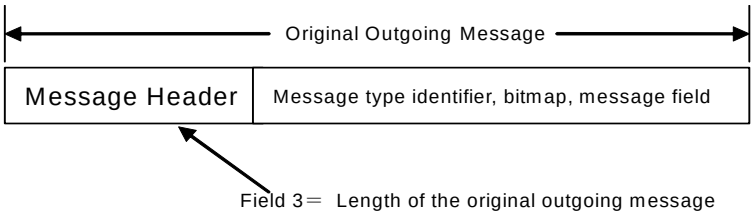


Figure 8 Correct Message Total Length Example

If this message header indicates any message error, Field 3 of the new message header indicates the total length of the message while Field 3 of the original message header indicates the length of the original message, which is as follows:

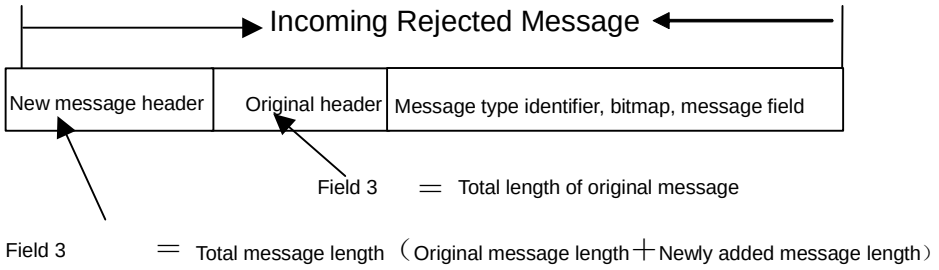


Figure 9 Error Message Total Length Example

Field Value

In correct messages, the field values must be greater than 46 and not more than 1846 bytes.

In rejected messages, the field values are: new message header length + original outgoing message length, which means the values must be greater than 46＋46＝92 and not more than 1846＋46＝1892.

Reject Code

00035 ＝ invalid value

4.2.2.4 Field 4 Destination ID

Attribute

ans 11, 11 numerics with fixed length, with right-aligned blanks if less than 11 numerics.

Generator

Participants, CUP

Description

The field indicates the routing information of the message.

Usage

When Participants inside Mainland of China generate the request or advice message, the field is filled with CUP ID, 00010000. For Participants outside Mainland of China, the field is filled with CUP ID, 00010344. When Participants respond to a request message, the field is filled with the value of Field 5 (source ID) of the request message.

Field Value

The field must be filled with CUP ID, 00010000 in the message generated by Participants inside Mainland of China, and CUP ID, 00010344 in the message generated by Participants outside Mainland of China. The field must include a valid ID in the message generated by CUP system. Please refer to the illustration in *Section 4.2.1.2* for how to fill in the field. The field value is provided in detail in *Appendix A Code Definitions in Part VI Annex*. The unique identifiers of Participants are provided in this Specifications.

Reject Code

00045 = invalid value

4.2.2.5 Field 5 Source ID

Attribute

ans11, 11 numerics with fixed length, with right-aligned blanks if less than 11 numerics

Generator

Participants, CUP

Description

This field indicates the message sender who is not definitely the acceptor of the original transaction data.

Usage

In general, when the message receiver connecting with CUP system directly responds to the received request or advice, the original destination ID in the request or advice message will be used as the source ID of the response message.

In the request message, the field should be filled with the ID of sender connecting with CUP directly, even if the connecting institution is not the real generator of this request message, but only the transmitter of the request message (for instance, the request message is generated by a branch of the Participant). In the response message, the field is filled with the institution ID of the real response message generator.

Field Value

Every outgoing message must contain a valid source ID. In the request and response message generated originally by an Acquirer, the field must indicate a valid Acquiring Institution Identification Code. In the request and response message generated by the Issuer, the field must also indicate a valid Issuer ID. Please refer to the illustration of *Section 4.2.1.2* for how to fill in the field.

The field value is provided in detail in *Appendix A Code Definitions in Part VI Annex*. The unique identifiers of the Participants are provided in this Specifications.

Reject Code

00055 ＝ invalid value

4.2.2.6 Field 6 Reserved for Use

Attribute

24 bit binary number

Generator

CUP

Description

This field is generated and used by CUP.

Usage

The field value is 0 if the request message is sent by Participants while the field value will be same as the request message value if it is the response message.

Field Value

The field value is 0 in the message generated by Participants.

Reject Code

00065 ＝invalid value

4.2.2.7 Field 7 Batch Number

Attribute

8 bit binary digit

Generator

CUP

Description

The field includes the batch number assigned by CUP. When CUP system receives a new request or advice, it inserts the current batch number into this field. If what CUP system receives is the related message of the processed message previously, the field value will be the same as that of the previous message field.

Usage

If the request message is initiated by Participants the field value will be 0; if Participants return a response to CUP, the field value will be the same as the corresponding value in the request message.

Field value in the reconciliation message sent by CUP in day-end processing is decimal "99" (Participants inside Mainland of China Use Only).

Field Value

The field must be 0 in the request message generated by Participants.

Reject Code

00075 ＝invalid value

4.2.2.8 Field 8 Transaction Information

Attribute

ans 8, 8 alphanumeric and special characters

Generator

CUP

Description

This field is generated by CUP system with a format as follows:

Table 3 Transaction Information Field Format

Transaction Identifier	Advice Transaction Identifier	Reserved for Use
ans 1	ans 1	ans 6

Usage

The values of transaction identifier are as follows:

- 0－CUP card intra-country transaction inside Mainland of China
- 1－international transaction of CUP card

Advice transaction identifier is used to distinguish some special advice transactions. The values are as follows:

Table 4 Advice Transaction Identifier

Value	Meaning	Transactions Included
0	Default Value	For general advice transactions (all but the following three advices) and all request transactions, the field is filled with default value "0".
1	Stand-in Authorization Advice	Stand-in authorization advice message of purchase and cash-withdrawal transaction （0220/0230）, stand-in authorization advice message of Pre-authorization completion（0220/0230）, stand-in authorization advice

		message of Pre-authorization and authorization transaction（0120/0130）, stand-in authorization advice message of reversal transaction（0420/0430）, stand-in authorization advice message of purchase , cash-withdrawal and Pre-authorization completion cancellation transactions（0220/0230）, stand-in authorization advice message of Pre-authorization or authorization cancellation transaction（0120/0130）
2	Dispute Resolution Advice	Fee collection/fund disbursement advice（0220/0230）, confirmation advice of credit adjustment/ confirmation advice of debit adjustment / confirmation advice of re-presentment / chargeback advice /second chargeback advice message—sent to acquirer（0422/0432）, exceptional processing confirmation advice message—sent to Issuer（0422/0432）, credit adjustment advice/ debit adjustment advice/re-presentment advice /chargeback confirmation advice /second chargeback advice—sent to Issuer（0220/0230）, exceptional processing advice message—sent to receiver（0220/0230）
3	Risk Management Advice	Suspicious card advice（0620/0630）suspicious transaction advice（0620/0630）

Field Value

In the request message sent by Participants, the field value is all zero. The field value in the response message returned to CUP system by Participants remains unchanged. The field value should be valid in the message sent by CUP system.

Reject Code

00085 ＝ invalid value

4.2.2.9 Field 9 User Information

Attribute

8 bit binary digit

Generator

Participants

Description

The field value will be filled by Acquirer. For example, the value can be used to identify the source of a request. The value is only used by Participants internally.

Usage

The value defined by the user at the Participants' option shall be included in the request message. The field must be filled with 0 if user information is unnecessary.

The Participants must preserve the field value in the request and return it unchanged in response message.

Field Value
N/A

Reject Code
N/A

4.2.2.10 Field 10 Reject Code

Attribute
n5, 5 numerics with fixed length

Generator
CUP

Description
The field is filled by CUP to indicate the reason for rejecting the message under the following two situations.

- CUPS will fill the field to indicate the error field when it finds any format error in the message sent by Participants. The 1st digit of this field is either 0 or 1. 0 stands for header error while 1 stands for message field error. The 2nd to 4th digits stand for the field with error and the 5th digit stands for the error type.
- The field should be filled to indicate the reason for rejecting message if it is rejected due to the processing center. The 1st digit is 2 to indicate the message is rejected due to the processing centre; the 2nd to 5th digits indicate the error type.

The field is filled with '000000' in the message header generated by Participants.

For the detailed definition of reject code, please refer to the reject code list of *Appendix A Code Definitions in Part VI Annex.*

Notes: CUP sends reject message only for received request message instead of for received response message.

Usage
N/A

Field Value
N/A

Reject Code
N/A

4.2.3 Message Header in Transmission

4.2.3.1 Abbreiviation

The abbreviations of some items of this Specification are defined as follows:

Table 5 Abbreviation

Abbreviation		Description
Sender	AC	Acquirer
	SW	CUP System
	IS	Issuer
	SD	Sender
	RC	Receiver
	OB	Original Bank
	CB	Cardholder Bank
abbreviation		Description
Data Element Definition	M	Field, Mandatory
	C	Field, Conditional
	C+	Field, Conditionally added
	C-	Field, Conditionally eliminated
	M+	Field, Mandatory added
	O	Field, Optional
	→	Field, Forwarded and unchanged
		Field, Keep same value with the related field of the previous message
	00	Private field, must be filled with 0
		Field, Mandatory eliminated

4.2.3.2 Transmission of Message Header

Table 6 Transactions Initiated by Acquirer and Validated by CUP System

Position	Data Element	AC	SW	IS	SW	Note
1	Header Length	M	→	M	→	Length of the message header remains unchanged in the transmission
2	Header Flag and Version	M	M	M	M	Version may vary
3	Total Message Length	M	M	M	M	Depends on the length of message fields
4	Destination ID	00010344	M	00010344	M	Destination ID of the Acquirer must be CUP ID 00010344
5	Source ID	M	00010344	M	00010344	
6	Reserved for Use	Filled by zeroes	M	M	→	Value is provided by CUP and Issuer must not change it in the response message
7	Batch Number	Filled by	M	M	→	Value is provided by CUP

		zeroes				and Issuer must unchange it in the response message
8	Transaction Information	Filled by zeroes	M	M	→	Value is provided by CUP and Issuer must not change it in the response message
9	User Info	M	→	M	→	
10	Reject Code	Filled by zeroes	→	M	→	Forwards this field if no error detected

Table 7 Newly Added Message Header for transaction initiated by acquirer and failed to pass the validation from CUPS

Position	Data Element	AC	SW	Note
1	Header Length	M	→	Length of the message header remains unchanged during the transmission
2	Header Flag and Version	M	M	Version may vary
3	Total Message Length	M	M	Depends on the length of message fields
4	Destination ID	00010344	M	Destination ID of the Acceptor must be CUP ID 00010344
5	Source ID	M	00010344	
6	Reserved for Use	Filled by zeroes	M	Value is provided by CUP and Issuer must not change it in the response message
7	Batch Number	Filled by zeroes	M	Value is provided by CUP and Issuer must not change it in the response message
8	Transaction Information	Filled by zeroes	M	Value is provided by CUP and Issuer must not change it in the response message
9	User Info	M	→	
10	Reject Code	Filled by zeroes	C＋	Reject Code is generated by CUP system and message will be returned to Acquirer instead of forwarding in case of error detected

Table 8 Transactions Initiated by CUP System

Position	Data Element	SD（SW）	RC	Note
1	Header Length	M	M	Length of the header remains unchanged during the transmission
2	Header Flag and Version	M	M	Version may vary

Position	Data Element	SD（SW）	RC	Note
3	Total Message Length	M	M	Depends on the length of message fields
4	Destination ID	M	00010344	Destination ID of the Acquirer must be CUP ID 00010344 because the receiver responds CUP Issuer directly
5	Source ID	00010344	M	Source ID must be CUP ID 00010344 because this message is sent by CUP
6	Reserved for Use	M	M	Value is provided by CUP and Issuer must not change it in the response message
7	Batch Number	M	M	Value is provided by CUP and Issuer must not change it in the response message
8	Transaction Information	M	M	Value is provided by CUP and Issuer must not change it in the response message
9	User Info	Filled by zeroes	M	
10	Reject Code	Filled by zeroes	M	

4.3 Descriptions on Message Type

The section describes the message type identifier and specifies how to use the message type. The position of message type identifier in message is as follows:

Message Header	Message Type Identifier	Bitmap	Message Field

Figure 10 Message Type Identifier

The length of message type identifier is four bytes. Each message is required to have a message type identifier followed by the main bitmap.

The message type in ISO 8583-1987 standard is mainly defined according to the source and destination of the message. It includes the Acquirer message sent to the Issuer and the Issuer message sent to the Acquirer, but does not define how the switch system uses the message type. This Specification defines the message type transmitted between CUP and Participants.

For further information, please refer to the description of the message field.

4.4 Descriptions on Bitmap

Bitmap is used to identify fields which will appear in the message or not. A message can contain one or two bitmaps. The position of bitmap in message is shown as follows:

Message Header	Message Type Identifier	Bitmap	Message Field

Bitmap 1defines Field 2-64

Bitmap 2 defines Field 66-128

Figure 11 Bitmap

4.4.1 Bitmap 1

The first bitmap is the main bitmap. Each message has the main bitmap. It composes of 64 binary bits (8 bytes) following the message type identifier. Except the first bit, every bit corresponds to a field, that is, corresponds to Field 2 to Field 64. Field 55 in Bitmap 1 is specially used for IC card transactions, that is, if there is Field 55 in Bitmap 1, this is an IC card transaction. The value of each bit indicates whether the field appears or not in the message:

If a bit is 0, the corresponding field will not appear in the message.

If a bit is 1, the corresponding field will appear in the message.

There is no field with the field number “1”. The first bit of main bitmap is used to indicate whether it is followed by Bitmap 2. The Bitmap 2 is described in the next section.

The following chart indicates the location and functions of the bitmap. In this example, the first bit of the bitmap is 0, which indicates there is no bitmap 2. The second, third and forth bit are 1, which shows the Field 2,3,4 appear in the message .The fifth, sixth bit are 0, which indicates Field 5, 6 will not appear in the message. The seventh bit is 1, which indicates Field 7 appears in the message, and so on.

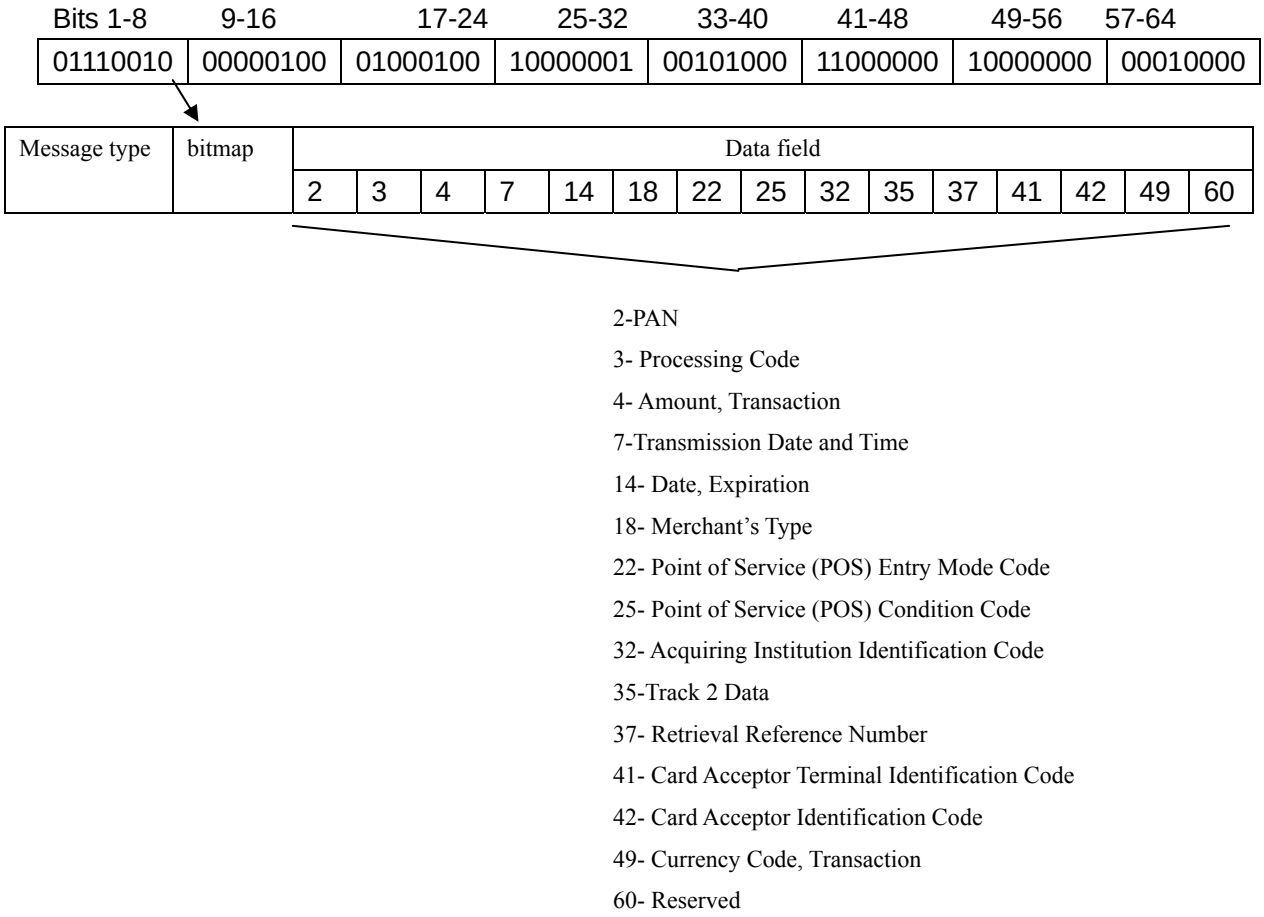


Figure 12 Example of Bitmap 1

4.4.2 Bitmap 2

The first bit of the main bitmap indicates whether it is followed by Bitmap 2. Like the main bitmap, Bitmap 2 is composed of 64 binary bits (8 bytes). Bitmap 2 corresponds to Field 66 to Field 128, and can be considered as extension of main bitmap. There is no field with field number 65.

Only when the message contains fields in Field 66 to Field 128, Bitmap 2 will be used. Bitmap 2 follows the main bitmap and is followed by message fields. The following chart indicates the location and functions of Bitmap 2. The first bit of the main bitmap shows the existence of Bitmap 2. If some position of the bitmap is 1, the corresponding field exists. For example, the bit 26 (90-64=26) of Bitmap 2 is 1 shows the existence of Field 90 in the message.

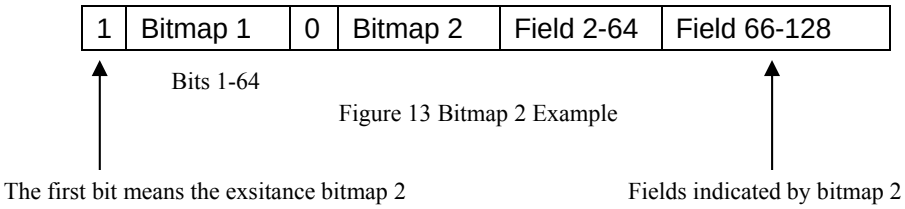


Figure 13 Bitmap 2 Example

4.5 Processing Rules

This Section gives detailed rules of how CUP system processing message.

4.5.1 Message Length

The maximum length of the correct message does not exceed 1846 bytes.

The maximum length of the incorrect message does not exceed 1892 bytes.

4.5.2 Data Representation

When the field of ISO 8583 message is defined as numerics, it is coded in ASCII in CUP system as follows:

nx, x bytes fixed length numerics

When the field of ISO 8583 message is defined as alphanumerics, it is coded in ASCII in CUP system as follows:

anx, x bytes fixed length alphanumerics

Though some fields are defined as alphanumerics, their actual values may be only numerics. For instance, Field 37—Retrieval Reference Number.

Fields identified as “ans” indicates that special characters are allowed, such as dash, slash in addition to alphanumerics.

4.5.3 Field Alignment

All fields are aligned on a byte boundary.

4.5.4 Field Length

The maximum length of the variable field defined in ISO standard can be 999 bytes maximum. The field description in this Specifications defines the maximum length of each variable field. The length limitation applies to the whole field. The total length of all subfields in the specified field should be no more than the length of the entire field.

The value in a length subfield never includes its own length. The meaning of message field length depends on the attribute of the field, which can be alphabetic, numeric or binary bit.

This specification permits other networks and systems to skip this field correctly.

For each bit-string field (for example Bitmap and PIN), its bit string must be constructed correctly.

4.5.5 Padding Unused Position

The following applies to fix length field when the data entered does not fill the field:

- If the field is numeric, left zero-fill is required

- If the field is not numeric, right space-fill is required

4.5.6 Message Transmission

In CUP system, messages are encoded and transmitted in ASCII.

4.5.7 Field with Optional Subfield

If a field is defined in terms of subfield and not all of the subfields are required in a message, the bit for that field in the bitmap must be set 1, if any one of the subfield appears.

5 Message Matching

The online message in CUP system composes of a pair of messages: request message and response message. CUP system compares key fields after receiving a message so as to match the message into a transaction set. The message matching is one of the most important concepts in switch system.

This section describes the overview of message matching concept and types of transaction sets and gives the key fields to define the processing procedures.

5.1 Correlation between Key Fields and Message

Key fields are used to identify a transaction. The Issuer, CUP and Acquirer must use these key fields to match the request (advice) and response of a transaction, original transactions and following related transactions.

When Participants find any errors in processing or transmitting a transaction, they can generate a message for correction. For example, the system of the Acquirer or POS equipment itself can generate a reversal.

Related transactions have the following situations:

- Original transaction and its reversal
- Original transaction and its cancellation
- Original transaction and its credit adjustment, debit adjustment, chargeback and exceptional processing within the specified time frame
- Debit Adjustment and credit adjustment
- The chargeback transaction and its corresponding debit adjustment transaction
- The representment transaction and the corresponding chargeback transaction
- Second chargeback transaction and its corresponding representment transaction
- Pre-authorization transaction and its settlement transaction
- Stand-in authorization and its advice transaction
- IC card unload transaction and confirmation based on PBOC e-wallet/bankbook standard
- Deposit transaction and its confirmation transaction
- Transfer-in transaction and its confirmation transaction
- The balance inquiry transaction has no related transactions

5.2 Key Field Matching

The following tables explain when key fields must match those in previous message and when new value must be assigned. Shaded cell in the tables indicates that it has the same value as its related transaction.

A Participant can use additional fields to match message at its discretion. For example, Field 2 (PAN) and Field 37 (Retrieval Reference Number) are usually used to match messages, while Field 90 (the original data element) can be used to match reversal messages.

5.2.1 Authorization, Pre-authorization Transaction

Table 9 Authorization, Pre-authorization Key Fields

Trans Type	Transmission Date and Time (Field 7)	System Trace Audit Number (Field 11)	Acquiring Institution Identification Code (Field 32)	Forwarding Institution Identification Code （Field 33）
Request 0100	System date and time when the Acquirer generate the transaction	New value assigned to the transaction	POS Acquiring Institution Identification Code	Forwarding Institution Identification Code
Response 0110	Same value as that in 0100 message	Same value as that in 0100 message	Same value as that in 0100 message	Same value as that in 0100 message

5.2.2 Authorization Cancellation, Pre-authorization Cancellation Transaction

Table 10 Cancellation of Authorization and Pre-authorization Key Fields

Trans Type	PAN (Field 2)	Authorization Identification Response (Field 38)	Card Acceptor Identification Code (Field 42)
Request 0100	Same value as the original authorization transaction	Response code of authorization ID in the original authorization	Same value as the original authorization transaction
Response 0110	Same value as that in 0100 message	Same value as that in 0100 message	Same value as that in 0100 message

5.2.3 Stand-in Authorization Advice Transaction (Participants inside Mainland of China Use Only)

Table 11 Financial Transaction Key Fields

Transaction Type	Transmission Date and Time (Field 7)	System Trace Audit Number (Field 11)	Acquiring Institution Identification Code (Field 32)	Forwarding Institution Identification Code (Field 33)
Request 0120/0220/0420	Date and Time when the original stand-in authorization transaction is generated	Trace number of the original stand-in authorization transaction	Acquiring Institution Identification Code of the original stand-in authorization transaction	Forwarding Institution Identification Code of the original stand-in authorization transaction
Response 0130/0230/0430	Same value as that in the original 0120/0220/0420	Same value as that in the original 0120/0220/0420	Same value as that in the original 0120/0220/0420	Same value as that in the original 0120/0220/0420

5.2.4 Balance Inquiry Transaction

Table 12 Key Fields of Balance Inquiry Transaction

Transaction Type	Transmission Date and Time (Field 7)	System Trace Audit Number (Field 11)	Acquiring Institution Identification Code (Field 32)	Forwarding Institution Identification Code (Field 33)
Request 0200	System date and time when the Acquirer generates the transaction	New value assigned to the transaction	Acquiring Institution Identification Code	Forwarding Institution Identification Code
Response 0210	Same value as that in the original 0200	Same value as that in the original 0200	Same value as that in the original 0200	Same value as that in the original 0200

5.2.5 Financial Transaction

Table 13 Financial Transaction Key Fields

Transaction Type	Transmission Date and Time (Field 7)	System Trace Audit Number (11)	Acquiring Institution Identification Code (Field 32)	Forwarding Institution Identification Code (Field 33)
Request 0200	System date and time when the Acquirer generates the transaction	New value assigned to the transaction	ATM/POS Acquiring Institution Identification Code	Forwarding Institution Identification Code
Response 0210	Same value as that in the original 0200	Same value as that in the original 0200	Same value as that in the original 0200	Same value as that in the original 0200

5.2.6 Financial Cancellation Transaction

Table 14 Financial Cancellation Key Fields

Transaction Type	Transmission Date and Time (Field 7)	System Trace Audit Number (11)	Acquiring Institution Identification Code (Field 32)	Forwarding Institution Identification Code (Field 33)	Original Data Elements (Field 90)
Request 0200	System date and time when the Acquirer generates the transaction	New value assigned to the transaction	ATM/POS Acquirer Institution Identification Code	Forwarding Institution Identification Code	Extract form the original transaction
Response 0210	Same value as that in the original 0200	Same value as that in the original 0200	Same value as that in the original 0200	Same value as that in the original 0200	

5.2.7 Financial Advice Transaction

Table 15 Financial Advice Transaction Key Field

Transaction Type	Transmission Date and Time (Field 7)	System Trace Audit Number (11)	Acquiring Institution Identification Code (Field 32)	Forwarding Institution Identification Code (Field 33)
Request 0220	System date and time when the Acquirer generates the transaction	New value assigned to the transaction	Acquiring Institution Identification Code (Field 32)	Forwarding Institution Identification Code (Field 33)
Response 0230	Same value as that in the original 0220	Same value as that in the original 0220	Same value as that in the original 0220	Same value as that in the original 0220

5.2.8 Reversal Advice

Table 16 Reversal Advice Key Information Field

Transaction Type	Transmission Date and Time (Field 7)	System Trace Audit Number (11)	Acquiring Institution Identification Code (Field 32)	Forwarding Institution Identification Code (Field 33)	Original Data Elements (90)
Request 0420	System date and time when the Acquirer generates the transaction	New value assigned to the transaction	Same as the original transaction	Same as the original transaction	Extract form the original transaction
Response 0430	Same value as that in the original 0420	Same value as that in the original 0420	Same value as that in the original 0420	Same value as that in the original 0420	

5.2.9 Dispute Resolution Advice (Issuer)

Table 17 Dispute Resolution Advice (Issuer) Key Information Field

Transaction Type	Transmission Date and Time (Field 7)	System Trace Audit Number (11)	Acquiring Institution Identification Code (Field 32)	Forwarding Institution Identification Code (Field 33)	Original Data Elements (90)
Request 0220	System date and time when the Acquirer generates the transaction	New value assigned to the transaction	Same as the original transaction	Same as the original transaction	Extract form the original transaction
Response 0230	Same value as that in the original 0220	Same value as that in the	Same value as that in the	Same value as that in the	

		original 0220	original 0220	original 0220	

5.2.10 Dispute Resolution Advice (Acquirer)

Table 18 Dispute Resolution Advice (Acceptor) Key Information Field

Transaction Type	Transmission Date and Time (Field 7)	System Trace Audit Number (11)	Acquiring Institution Identification Code (Field 32)	Forwarding Institution Identification Code (Field 33)	Original Data Elements (90)
Request 0422	System date and time when the Acquirer generates the transaction	New value assigned to the transaction	Same as the original transaction	Same as the original transaction	Extract form the original transaction
Response 0432	Same value as that in the original 0422	Same value as that in the original 0422	Same value as that in the original 0422	Same value as that in the original 0422	

5.2.11 Reconciliation (Participants inside Mainland of China Use Only)

Table 19 Reconciliation Transaction Key Information Field

Transaction Type	Transmission Date and Time (Field 7)	System Trace Audit Number (11)
Request 052X	System date and time when the Generator generates the transaction	New value assigned to the transaction
Response 053X	Same value as that in the original 052X	Same value as that in the original 052X

5.2.12 Network and Risk Management

Table 20 Network and Risk Management Transaction Key Information Field

Transaction Type	Transmission Date and Time (Field 7)	System Trace Audit Number (11)
Request 0620	System date and time when the Generator generates the transaction	New value assigned to the transaction
Response 0630	Same value as that in the original 0620	Same value as that in the original 0620

5.2.13 Network Management Advice

Table 21 Network Management Advice Transaction Key Information Field

Transaction Type	Transmission Date and Time (Field 7)	System Trace Audit Number (11)
Request 0820	System date and time when the Generator generates the transaction	New value assigned to the transaction
Request 0830	Same value as that in the original 0820	Same value as that in the original 0820

5.2.14 Key Reset

Table 22 Key Reset Transaction Key Information Field

Transaction Type	Transmission Date and Time (Field 7)	System Trace Audit Number (11)
Request 0800	System date and time when the Generator generates the transaction	New value assigned to the transaction
Response 0810	Same value as that in the original 0800	Same value as that in the original 0800

5.2.15 Setup/Withdraw Clientage (Participants inside Mainland of China Use Only)

Table 23 Set Up/Withdraw Clientage Key Information Field

Transaction Type	Transmission Date and Time (Field 7)	System Trace Audit Number (11)	Acquiring Institution Identification Code (Field 32)	Forwarding Institution Identification Code (Field 33)
Request 0100	System date and time when the Generator generates the transaction	New value assigned to the transaction	Acquiring Institution Identification Code	Forwarding Institution Identification Code
Response 0110	Same value as that in the original 0100	Same value as that in the original 0100	Same value as that in the original 0100	Same value as that in the original 0100

5.3 Demonstration of Inter-bank Transaction

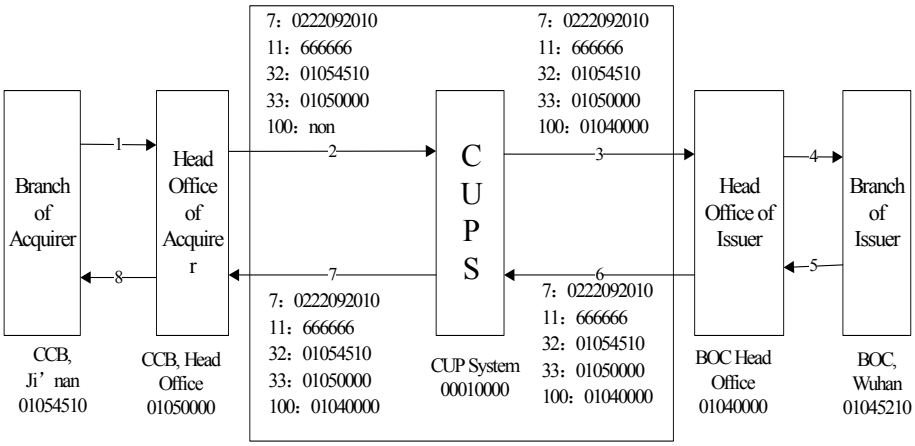
Assumption:

Transaction type: POS Purchase

Acquirer: Ji'nan Branch of China Construction Bank, which connects with CUPS through China Construction Bank head office.

Issuer: Bank of China, Wuhan Branch, which connects with CUPS through Bank of China head office.

The process of inter-bank transactions is as follows:



1——Ji’nan Branch of China Construction Bank (Acquirer) submits the purchase request message to China Construction Bank Headquarter (the head office of Acquirer)

2——China Construction Bank Headquarter (the head office of Acquirer) submits the purchase request message to CUP System according to the message format defined in CUP Technical Specifications. The key fields are as follows:

- Field 7 (Transmission Date and Time): 0222092010 (Beijing time 9:20:10 on 22nd February)
- Field 11 (System Trace Audit Number): 666666
- Field 32 (Acquiring Institution Identification Code): 01054510
- Field 33 (Forwarding Institution Identification Code): 01050000
- Field 100 (Receiving Institution Identification Code): not present.

3——CUP System forwards the purchase request message to Bank of China (the head office of the Issuer). The key fields are as follows:

- Field 7 (Transmission Date and Time): 0222092010 (Beijing time 9:20:10 on 22nd February)
- Field 11 (System Trace Audit Number): 666666
- Field 32 (Acquiring Institution Identification Code Code): 01054510
- Field 33 (Forwarding Institution Identification Code): 01050000
- Field 100 (Receiving Institution Identification Code): 01040000

4——Bank of China Headquarter (the head office of Issuer) forwards the request to Wuhan Branch of Bank of China (the branch of Issuer)

5——Wuhan Branch of Bank of China (the branch of Issuer) returns the response to Bank of China Headquarter (the head office of Issuer).

6——Bank of China Headquarter (the head office of Issuer) returns the response to CUP System. The key fields are as follows:

- Field 7 (Transmission Date and Time): 0222092010 (Beijing time 9:20:10 on 22nd February)
- Field 11 (System Trace Audit Number): 666666
- Field 32 (Acquiring Institution Identification Code): 01054510
- Field 33 (Forwarding Institution Identification Code): 01050000
- Field 100 (Receiving Institution Identification Code): 01040000

7——CUP System returns the response to China Construction Bank Headquarter (the head office of Acquirer). The key fields are as follows:

- Field 7 (Transmission Date and Time): 0222092010 (Beijing time 9:20:10 on 22nd February)
- Field 11 (System Trace Audit Number): 666666
- Field 32 (Acquiring Institution Identification Code): 01054510
- Field 33 (Forwarding Institution Identification Code): 01050000
- Field 100 (Receiving Institution Identification Code): 01040000

8——China Construction Bank Headquarter (the head office of Acquirer) returns the response to Ji'nan Branch of China Construction Bank, (the branch of Acquirer).

Figure 14 Example of Inter-bank Transaction

It can be concluded from the above process flow that in a transaction cycle, the values of key fields i.e. Field 7, 11, 32, 33 in a message remain unchanged in switch processing between Participants and CUP System (namely within the range of the frame in the figure). Moreover, the combination of the four values is unique in the whole process and can be used to identify a transaction clearly.

6 Message Field Definitions

6.1 Message Field Attribute

6.1.1 Characters

a) In the message between CUP and each Participant, the data type, length attribute and format of every message field are as follows:

Table 24 Data Type, Length Attribute and Format of Message Fields

Characters	Meanings
a	Characters of Letter, from A to Z, from a to z, aligned with the left, and filled with blanks in the right
b	Binary form of data, followed by numbers indicating bits of data
B	Binary number with variable length, followed by numbers indicating the bytes of binary data
n	Numeric value, from 0 to 9, aligned with the right, filled with zero before the first effective digit. The right two numbers should be Jiao and Cents while indicating RMB currency amount.
p	Filling characters, such as blanks
s	Special symbols
an	Letters and numeric characters, aligned with the left, and filled with blanks in the right rest bits
as	Letters and special characters, aligned with the left, and filled with blanks in the right rest bits
cn	Compressed numeric code, namely BCD code
ns	Numbers and special characters, aligned with the left, and filled with blanks in the right rest bits
ans	Letters, numbers and special characters, aligned with the left, and filled with blanks in the right rest bits
ansb	Letters, numbers , special characters and binary numbers, aligned with the left, and filled with blanks in the right rest bits
MM	Month, from 01 to 12
DD	Date, from 01 to 31
YY	Year, from 00 to 99
hh	Hour, from 00 to 23
mm	Minute, from 00 to 59
ss	Second, from 00 to 59
LL	Followed by the variable length value of data element, from 01 to 99
LLL	Followed by the variable length value of data element, from 001 to 999
VAR	Data element with variable length
3	The fixed length of 3 characters
..17	Variable length of which the largest is 17 characters. All the variable length fields should contain another 2 or 3 bits before data element, indicating the bit number after that to the ending of the data element.

X	Credit and debit symbols, with “C” indicating credit and “D” indicating debit, and they are always connected with a numeric currency amount data element. For example, X+N16 in net reconciliation amount represents the prefixes “C” or “D” and the 16 bit numbers of net reconciliation amount.
Z	Code set of the track 2 and 3 on magnetic stripe cards as defined in ISO 4909 and ISO 7813

b) The explanation on the data element with variable length

There are 2 additive bits before any data element with variable length less than 100 characters, indicating the lengths of the following, and the format is LLVAR.

There are 3 additive bits before any data element with variable length less than 1000 characters, indicating the lengths of the following, and the format is LLLVAR.

6.1.2 Note

The fields used in this Specifications follow the field sequence number in the ISO8583, sequencing from the small number to the larger. Reserved fields in ISO8583 are used in this Specifications, and special usages are defined.

The coding mode in the Specifications is ASCII code. The numeric characters are also expressed by ASCII code instead of compressed BCD code.

Please refer to the *Appendix A Code Definitions* in *Part VI Annex* for the reject code in this chapter.

6.2 Usage of Message Field by CUP System

6.2.1 Message Field Used by CUP System

Table 25 All Message Fields Used by CUP System

Field Sequence No.	Field Name
-	Expanded Bit Table
2	PAN
3	Processing Code
4	Amount, Transaction
5	Amount, Settlement
6	Amount, Cardholder Billing
7	Transmission Date and Time
9	Conversion Rate, Settlement
10	Conversion Rate, Cardholder Billing
11	System Trace Audit Number
12	Time, Local Transaction
13	Date, Local Transaction
14	Date, Expiration
15	Date, Settlement

16	Date, Conversion
18	Merchant's Type
19	Acquiring Institution Country Code
22	Point of Service Entry Mode Code
23	Card Sequence Number
25	Point of Service Condition Code
26	Point of Service PIN Capture Code
28	Amount, Transaction Fee
32	Acquiring Institution Identification Code
33	Forwarding Institution Identification Code
35	Track 2 Data
36	Track 3 Data
37	Retrieval Reference Number
38	Authorization Identification Response
39	Response Code
41	Card Acceptor Terminal Identification
42	Card Acceptor Identification Code
43	Card Acceptor Name/Location
44	Additional Response Data
45	Track 1 Data
48	Additional Data-Private
49	Currency Code, Transaction
50	Currency Code, Settlement
51	Currency Code, Cardholder Billing
52	Personal Identification Number (PIN) Data
53	Security Related Control Information
54	Additional Amounts
55	IC Card Data
57	Additional Transaction Data
58	Transaction Data of IC Card based on PBOC E-wallet/Bankbook Standard
59	Detailed Inquiry Data (Not Used at this Stage)
60	Self-Defined Field
61	Cardholder Authentication Information
62	Switch Center Data
63	Financial Network Data
66	Settlement Code
70	Network Management Information Code
74	Number, Credit Transaction
75	Number, Credit Reversal
76	Number, Debit Transaction

77	Number, Debit Reversal
78	Number, Transfer Transaction
79	Number, Transfer Reversal
80	Number, Balance Inquiry
81	Number, Authorized Transaction
82	Amount, Credit Service Fee
84	Amount, Debit Service Fee
86	Amount, Credit Transaction
87	Amount, Credit Reversal
88	Amount, Debit Transaction
89	Amount, Debit Reversal
90	Original Data
95	Amount, Replacement
96	Message Security Code
97	Amount, Net Settlement
99	Settlement Institution Identification Code
100	Receiving Institution Identification Code
102	Account Identification 1
103	Account Identification 2
121	CUP System Reserved
122	Acquiring Institution Reserved
123	Issuing Institution Reserved
128	Message Authentication Code

6.2.2 Message Field not Used by CUP System

Table 26 Message Field not Used by CUP System

Field Sequence No.	Field Name
8	Cardholder Transaction Receipt Amount
17	Accepting Date
20	PAN Extended, Country Code
21	Forwarding Institution Country Code
24	Network International Identifier
27	Authorization Identification Response Length
29	Settlement Fee
30	Transaction Processing Fee Amount
31	Settlement Processing Fee
34	PAN, Extended
40	Service Restriction Code
46	Additional Data -JSO
47	Additional Data - Country
56	Reserved for ISO Use

64	Message Authentication Code
67	Settlement Code
68	Receiving Institution Country Code
69	Settlement Institution Country Code
71	Message Number
72	Post Message Number
83	Transaction Fee Amount of Credit
85	Transaction Fee Amount of Debit
91	File Update Code
92	File Security Code
93	Response Indicator
94	Service Indicator
98	Payee
104	Transaction Description
105～120	Reserved for CUP Use
124～126	Reserved for CUP Use

6.3 Message Type ID

6.3.1 Attribute

n4, 4 numerics with fixed length

6.3.2 Description

Message type. ID is defined as follows:

6.3.2.1 Single Message Transaction Messages

0100/0110

Authorization request / response message

- Pre-authorization request / response
- Additional pre-authorization request / response
- Pre-authorization cancellation (online, manual) request / response
- IC card unload request /response based on PBOC e-wallet / bankbook standard
- Clientage set-up request / response message (Participants inside Mainland of China Use Only)
- Clientage Withdraw request /response message (Participants inside Mainland of China Use Only)

0200/0210

Financial request / response message

- Balance inquiry request / response
- Cash withdrawal request / response
- Depositing request / response

- Depositing cancellation request / response
- Pre-authorization completion (online) request / response
- Pre-authorization completion cancellation request / response
- Purchase request / response
- Purchase cancellation request / response
- Transfer request / response (Participants inside Mainland of China Use Only)
- Transfer in request / response (Participants inside Mainland of China Use Only)
- Transfer out request / response (Participants inside Mainland of China Use Only)
- IC card load transaction request / response based on PBOC e-wallet / bankbook standard
- IC card unload confirming request / response based on PBOC e-wallet / bankbook standard
- Fund collection request / response (Participants inside Mainland of China Use Only)
- Fund payment request / response (Participants inside Mainland of China Use Only)
- Fund payment cancellation request / response (Participants inside Mainland of China Use Only)

0220/0230

Financial advice / response message

- Depositing confirmation request / response
- Transfer in confirmation request / response
- (Offline) Pre-authorization completion advice / response
- Settlement advice / response
- (Online) refund advice / response
- Stand-in authorization of purchase, purchase cancellation advice / response
- Stand-in authorization of cash withdrawal advice / response
- Stand-in authorization of Pre-authorization completion and Pre-authorization completion cancellation advice / response

0120/0130

- Stand-in authorization of Pre-authorization and Pre-authorization cancellation advice / response

0420/0430

Reversal advice / response message

- Pre-authorization reversal advice / response
- Pre-authorization cancellation （online / manual） reversal advice / response
- Cash withdrawal reversal advice / response
- Purchase reversal advice / response

- Purchase cancellation reversal advice / response
- Pre-authorization completion reversal advice / response
- Pre-authorization completion cancellation reversal advice / response
- Transfer out reversal advice / response (Participants inside Mainland of China Use Only)
- Fund collection reversal advice / response (Participants inside Mainland of China Use Only)
- Fund payment reversal advice / response (Participants inside Mainland of China Use Only)
- Fund payment cancellation reversal advice / response (Participants inside Mainland of China Use Only)
- Stand-in authorization of purchase, cash withdrawal and Pre-authorization reversal advice / response (Participants inside Mainland of China Use Only)

6.3.2.2 Dual Message Transaction Messages

0100/0110

Authorization request / response message

- Authorization request / response
- Additional authorization request / response message
- Authorization cancellation request / response
- Balance inquiry request / response

0420/0430

Reversal Advice / response message

- Authorization reversal advice / response
- Authorization cancellation reversal advice / response
- Stand-in authorization of reversal advice / response

0120/0130

- Stand-in authorization of authorization and authorization cancellation advice / response

6.3.2.3 Dispute Resolution Advice Messages (Participants inside Mainland of China Use Only)

0422/0432

Acquirer dispute resolution advice / response message

- Credit adjustment advice/response
- Credit adjustment (deposit) advice / response
- Manual refund advice / response
- Debit adjustment advice / response
- Chargeback advice / response
- Representment advice / response

- Second chargeback advice / response message

0422/0432

- Dispute initiator advice / response message
- Exceptional processing advice / response

0220/0230

Issuer dispute resolution advice / response message
- Credit adjustment advice / response
- Debit adjustment advice / response
- Chargeback advice / response
- Representment advice / response

0220/0230

- Dispute receiver advice / response message
- Exceptional processing advice / response

6.3.2.4 Other Messages

0220/0230

- Fee collection / fund disbursement advice / response message (Participants inside Mainland of China Use Only)

0520/0530

- Acquirer reconciliation advice / response message (Participants inside Mainland of China Use Only)

0522/0532

- Issuer reconciliation advice / response message (Participants inside Mainland of China Use Only)

0520/0530

- Participants transfer transaction reconciliation advice / response message (Participants inside Mainland of China Use Only)

0620/0630

Management advice / response message
- Text transmission advice / response (Participants inside Mainland of China Use

Only)

- Fund settlement advice / response (Participants inside Mainland of China Use Only)
- Suspicious card transaction advice / response (Participants inside Mainland of China Use Only)
- Suspicious card advice / response (Participants inside Mainland of China Use Only)

0800/0810

Network management request / response message

- CUP key reset request / response

0820/0830

Network management advice / response message

- CUP sending network management advice / response
- Participant sending network management advice / response
- Participant key reset request advice / response

0800/0810

- Stand-in authorization advice information request (Participants inside Mainland of China Use Only)
- Termination of stand-in authorization advice information request (Participants inside Mainland of China Use Only)

6.4 Field 2 Primary Account Number (PAN)

6.4.1 Attribute

n..19 (LLVAR), the length of 2 bytes plus PAN no more than 19 bytes (numerics)

6.4.2 Description

User's PAN. Its value is from the starting character (not counted) of Track 2 to the separating character or equal mark (not counted) on Track 2. The PAN length is 13 to 19 numerics for CUP card, but maybe 11-19 numerics for foreign card PAN should comply with one of the following standards:

－The requirements in *JR/T 0008-2000 Bank Identification Number and Card Number of Financial Standards in People's Republic of China*:

Table 27 PAN Constitution in JR/T 0008-2000

XXXXXX	X … … X	X
BIN	6-12 Self-defined bytes	Check Digit

－Requirement of other international credit card company with connection with CUP network

－Other standards approved by People's Bank of China.

－Requirements of other bankcard organizations / companies.

6.4.3 Usage

This field, which should be exist in all message types of balance inquiry, authorization, financial request, response and advice, is used to determine the issuer and the routing of transaction messages. If existing in the original transaction request message, this field must exist in the following related message. If existing in the request or advice message, this field should be returned unchanged in the response message.

6.4.3.1 Usage 1: PAN

- For transactions with track data transmitted:

For example, in an ATM transaction of RMB card, the acquirer should get PAN from Track 2 of the customer's magnetic stripe card to fill this field, while in a POS transaction in which the merchant sends the track information, the merchant should obtain Track 2 information of the customer's magnetic stripe card from the card reader. The customer's PAN would be obtained by the acquirer from Track 2 data from the POS message to fill this field. The merchant can get the PAN information from the response message.

- For transactions without track data transmitted:

In a transaction, such as fund collection transaction (when cardholder does not swipe card initiatively), e-commerce transaction, phone bank and mobile phone bank, this field should be filled or input manually by the institution keeping PAN information.

6.4.3.2 Usage 2: Transfer-in/Transfer-out Account Number

This field is the transfer-out account/card number for transfer transaction and transfer-out transaction messages.

This field is the transfer-in account/card number in transfer-in transaction messages.

6.4.4 Reject Code

10023＝invalid characters in length field

10024＝length value exceeding 19

10025＝invalid characters in PAN

6.5 Field 3 Processing Code

6.5.1 Attribute

n6, 6 numerics with fixed length

6.5.2 Description

This field is composed of 6 numbers, indicating the types of transaction, and the type of cardholder's account effected.

Table 28 Composition of Processing Code

1st, 2nd bits	3rd, 4th bits	5th, 6th bits

1st and 2nd bits stand for Transaction Type

3rd and 4th bits stand for Account Type (From)

5th and 6th bits stand for Account Type (To)

The 1st and 2nd bits of transaction processing code are defined as follows:

Table 29 Definitions of 1st-2nd Bits of Processing Code

1st, 2nd bits	Description
00-19	Debits
00	Goods and service
01	Cash
02	Adjustment
03	Cheque guarantee(funds guaranteed)
04	Cheque verification(funds available but not guaranteed)
05	Euro-cheque
06	Traveler cheque
07	Letter of credit
08	Giro (postal banking)
09	Goods and service with cash withdrawal transfer
10-13	Reserved for ISO use
14-16	Reserved for national use
17-19	Reserved for private use
20-29	Credits
20	Returns
21	Deposits
22	Adjustment
23	Cheque deposit guarantee
24	Cheque deposit
25-26	Reserved for ISO use
27	Reserved for national use
28-29	Reserved for private use
30-39	Inquiry services
30	Available funds inquiry
31	Balance inquiry
32-35	Reserved for ISO use

1st, 2nd bits	Description
36-37	Reserved for national use
38-39	Reserved for private use
40-49	Transfer services
40	Card holder accounts transfer
41-45	Reserved for ISO use
46-47	Reserved for national use
48-49	Reserved for private use
50-99	Reserved
70	Pin change
90	Set up clientage
91	Withdraw clientage

The 3rd and 5th bits of transaction processing code are defined as follows:

Table 30 Definitions of 3rd - 5th Bits of Processing Code

3rd, 5th bits	Description
0	Default
1	Saving account
2	Cheque account
3	Credit facility
4	Universal account number
5	Investment account
6-7	Reserved for ISO use
8	Reserved for national use
9	Reserved for private use

The 4th and 6th bits of transaction processing code are defined as follows:

Table 31 Definitions of 4th-6th Bits of Processing Code

4th, 6th bits	Description
0	Default
1-2	Reserved for ISO use
3-7	Reserved for national use
8-9	Reserved for private use

6.5.3 Usage

In a transaction response, this field must be the same as the one in the transaction request.

In a reversal transaction, this field must be same as the one in the original transaction.

In a dispute resolution advice (credit adjustment transaction), this field must be 22XXXX.

In a dispute resolution advice (debit adjustment transaction), this field must be 02XXXX.

In a chargeback for debit adjustment transaction, this field must be 02XXXX, while in a chargeback for other transaction, this field must be the same as the one in original financial transaction.

If the party initiating a representment has not initiated debit adjustment for the same transaction, then this field in the representment transaction message must be the same as the one in the original transaction, while if the party initiating the representment has initiated a debit adjustment, then this field in representment transaction message must be 02XXXX.

Detailed usages are as follows:

Table 32 Usage of Processing Code

Transaction Type	Card Type Not Selected	Saving Account	Cheque Account	Credit Account	Universal Account
Balance Inquiry	300000	301000	302000	303000	304000
Pre-authorization Pre-authorization reversal Additional pre-authorization Additional pre-authorization Reversal	030000	031000	032000	033000	034000
Pre-authorization Cancellation Pre-authorization Cancellation Reversal	200000	201000	202000	203000	204000
Pre-authorization Completion Pre-authorization Completion Reversal Pre-authorization Completion Chargeback Pre-authorization Completion Representment	000000	001000	002000	003000	004000
Authorization Authorization Reversal Additional Authorization Additional Authorization Reversal	000000	001000	002000	003000	004000
Authorization Cancellation Authorization Cancellation Reversal	200000	201000	202000	203000	204000
Purchase Purchase Reversal Purchase Chargeback Purchase Representment	000000	001000	002000	003000	004000
Pre-authorization Completion (offline) Advice Settlement Advice Pre-authorization Completion (manual) Chargeback	000000	001000	002000	003000	004000

Representment					
Purchase Cancellation Purchase Cancellation Reversal	200000	201000	202000	203000	204000
Refund	200000	201000	202000	203000	204000
Pre-authorization Completion Cancellation Pre-authorization Completion Cancellation Reversal	200000	201000	202000	203000	204000
Cash Withdrawal Cash Withdrawal Reversal Cash Withdrawal Chargeback Cash Withdrawal Representment	010000	011000	012000	013000	014000
Deposit	210000	211000	212000	213000	214000
Deposit Confirmation	210000	211000	212000	213000	214000
Deposit Cancellation	170000	171000	172000	173000	174000
Transfer	400000	401000	402000	403000	404000
Transfer-out	460000	461000	462000	463000	464000
Transfer-in	470000	471000	472000	473000	474000
Transfer-in Confirmation	470000	471000	472000	473000	474000
Credit Adjustment	220000	221000	222000	223000	224000
Debit Adjustment Debit Adjustment Chargeback Debit Adjustment Representment	020000	021000	022000	023000	024000
Fund Collection Transaction	190000	191000	192000	193000	194000
Fund Payment Transaction	280000	281000	282000	283000	284000
Fund Payment Transaction Cancellation	180000	181000	182000	183000	184000
Load on specific account of IC card based on PBOC e-wallet/bankbook standard	600000	601000	602000	603000	604000
Unload and Unload confirmation of IC card based on PBOC e-wallet/bankbook standard	610000	611000	612000	613000	614000
Transfer Load on un-specific account of IC card based on PBOC e-wallet/bankbook standard	620000	621000	622000	623000	624000
Cash Deposit of IC card based on PBOC e-wallet/bankbook standard	630000	631000	632000	633000	634000
Transfer-out Load on un-specific account of IC card based on PBOC e-wallet/bankbook standard	640000	641000	642000	643000	644000
Transfer-in Load on un-specific account of IC card based on PBOC e-wallet/bankbook standard	650000	651000	652000	653000	654000
Fee collection/fund disbursement-Debit	190000	191000	192000	193000	194000
Fee collection/fund disbursement -Credit	290000	291000	292000	293000	294000
Exceptional Processing	220000	221000	222000	223000	224000

Setup Clientage	900000	901000	902000	903000	904000
Withdraw Clientage	910000	911000	912000	913000	914000
Cash Advance Cancellation	270000	271000	272000	273000	274000

For a transaction without selecting card type, the issuer will determine the card type at its own discretion to process the account according to the account number.

For different transactions with the same processing code, the issuer can differentiate further according to Usage 2 of Field 25 (Point Of Service Condition Code), such as Pre-authorization completion and purchase transaction, chargeback and representment transaction, fund collection and fee collection/fund disbursement-debit transaction. Please refer to Usage 2 of Field 25 for details.

6.5.4 Reject Code

10035＝invalid processing code or invalid characters

6.6 Field 4 Amount, Transaction

6.6.1 Attribute

n12, 12 numerics with fixed length

6.6.2 Description

Transaction amount. No decimal point appears in this field. The decimal place is implied, based on the transaction currency.

6.6.3 Usage

This field value only includes transaction amount and excludes any transaction fee. And its value will remain unchanged during the whole transaction process. The Field 49 (Currency Code, Transaction) will indicate the transaction currency code and must be appear together with this field. For an issuer participating in multi-currency transactions, this field indicates the currency in the request submitted by the acquirer.

When the transaction currency is RMB, the last two digits in the right of this field should contain Jiao and Fen of RMB.

When the transaction currency is non-RMB and has no decimal digit, this field reflects the actual transaction amount. If the currency is non-RMB and has two decimal digits, the way to fill the field is that same as that for RMB; while if it has three decimal digits, the last decimal digit must be 0. Examples of usage are as follows:

Table 33 Usage of Transaction Amount

Currency Type	Decimal Digits	Actual Amount	Field Value
RMB	2	1000.02	000000100002
Non-RMB	None	1000	000000001000

	2	1000.02	000000100002
	3	1000.112	000001000110

The field will not exist in balance inquiry requests.

In the fund collection/payment transaction message, this field indicates the sum of the fees in the fund collection/payment message.

6.6.4 Reject Code

10045＝invalid characters

6.7 Field 5 Amount, Settlement

6.7.1 Attribute

n12, 12 numerics with fixed length

6.7.2 Description

Settlement amount＝transaction amount (Field 4) × settlement conversion rate (Field 9), any transaction fee excluded. Decimal point is not included in this field, and the decimal place is implied, based on the settlement currency.

6.7.3 Usage

This field is used as a basis for the settlement between Participants. Field 50 (Currency Code, Settlement) indicates the settlement currency. If this field is existed, Field 50 must appear.

When the settlement currency is RMB, the last two digits in the right of this field should contain Jiao and Fen of RMB.

When the currency is non-RMB and has no decimal digit, this field reflects the actual settlement amount. If the currency is non-RMB and has two decimal digits, the way to fill the field is that same as that for RMB; while if it has three decimal digits, the last decimal digit must be 0. Examples of usage are as follows:

Table 34 Usage of Settlement Amount

Currency Type	Decimal Digits	Actual Amount	Field Value
RMB	2	1000.02	000000100002
Non-RMB	None	1000	000000001000
	2	1000.02	000000100002
	3	1000.112	000001000110

This field is only included in the international transaction message.

This field will not appear in authorization and balance inquiry messages.

This field will be filled by CUP.

When the transaction currency is different from that of settlement, this field must be used. If this field appears, Field 9 (Settlement Conversion Rate), Field 16 (Exchange Date) and Field 50 (Currency Code, Settlement) must appear.

6.7.4. Reject Code

10055＝invalid characters

6.8 Field 6 Amount, Cardholder Billing

6.8.1 Attribute

n12, 12 numerics with fixed length

6.8.2 Description

Cardholder billing amount＝transaction amount (Field 4)×cardholder billing conversion rate (Field 10), any transaction fee excluded. There is no decimal point in this field, and the decimal place is implied, based on the cardholder billing currency.

6.8.3 Usage

This field is used for deducting or freezing the fund in the cardholder account and only appears in international transaction messages. In a single-message transaction such as ATM cash withdrawal transaction, the amount filled in this field can be used as the referenced amount for the issuer to deduct the fund from the cardholder account; while in a dual-message transaction such as authorization transaction, the amount can be used as the referenced amount for the issuer to freeze the fund in the cardholder account.

In CUP card international transactions, this field is filled by CUP, only containing transaction amount without any transaction fee (refer to Field 121.5 for details of transaction fee). Therefore, the amount deducted by the issuer from the cardholder account should contain two parts, this amount and other fees. This value is only for reference, and the issuer can calculate the cardholder billing amount itself.

When the cardholder billing currency is RMB, the last two digits in the right of this field should contain Jiao and Fen of RMB.

When the cardholder billing currency is non-RMB and has no decimal digit, this field reflects the actual settlement amount. If the currency is non-RMB and has two decimal digits, the way to fill the field is that same as that for RMB; while if it has three decimal digits, the last decimal digit must be 0. Examples of usage are as follows:

Table 35 Usage of Cardholder Billing Amount

Currency Type	Decimal Digits	Actual Amount	Field Value
RMB	2	1000.02	000000100002

Non-RMB	None	1000	000000001000
	2	1000.02	000000100002
	3	1000.112	000001000110

This field is used only when the transaction currency is different from the cardholder billing currency. When this field appears, Field 10 (Cardholder Billing Conversion Rate) and Field 51 (Cardholder Billing Currency Code) must appear.

6.8.4 Reject Code

10045＝invalid characters

6.9 Field 7 Transmission Date and Time

6.9.1 Attribute

n10, 10 numerics with fixed length

Format: MMDDhhmmss

6.9.2 Description

The system working date and time of the transaction initiator

6.9.3 Usage

When the acquirer receives a transaction request message, it fills this field with the system working date and time of the acquirer.

When CUP System initiates a dispute resolution advice, it fills this field with the system working date and time of CUP.

Participants should save this field when they receive a message, and then return the original value in the response message.

This field is a key field that will be used to match the request message when a Participant receives a transaction response message.

When sending a reversal message, the reversal initiator will fill this field with a new transaction time which will not be changed when the reversal is resent.

It is Beijing time for Participants to fill this field with when sending messages.

The range of transaction transmission time is:

MM: 01－12

DD: 01－31

hh: 00－23

mm: 00－59

ss: 00－59

6.9.4 Reject Code

10075＝invalid numbers or invalid characters

6.10 Field 9 Conversion Rate, Settlement

6.10.1 Attribute

n8, 8 numerics with fixed length

6.10.2 Description

It is the currency conversion rate from the transaction currency to settlement currency, which is agreed by CUP and the Participant. The format is right-justified and no decimal point. The number of decimal digits is indicated by the leftmost number. The digits from 2 to 8 indicate the value of the conversion rate.

For example, 71212345 indicates that the conversion rate is 0.1212345.

6.10.3 Usage

This field is only used when the transaction currency (Field 49) is different from the settlement currency (Field 50).

It will be filled by CUP. In the request message that CUP sends to the issuer, it is the conversion rate for the currency conversion from the acquirer's transaction currency to the issuer's settlement currency. And in the response message that CUP returns to the acquirer, it is the conversion rate for the currency conversion from the acquirer's transaction currency to its settlement currency. This field must appear when transaction amount (field 4) and settlement amount (field 5) appear in the message. The field 16 (conversion date) and field 50 (settlement currency code) must appear when this field is used.

6.10.4 Reject Code

10095＝invalid characters

6.11 Field 10 Conversion Rate, Cardholder Billing

6.11.1 Attribute

n8, 8 numerics with fixed length

6.11.2 Description

It is the conversion rate for the currency conversion from the acquirer's transaction currency to the cardholder billing currency. The format is right-justified (the leftmost digit denotes the number of decimal digits), no decimal point, the leftmost digit (0-7) indicates the number of digits after the decimal place. For example, 71212345 indicates that the conversion rate is 0.1212345.

6.11.3 Usage

The field only appears in international transaction messages, and is filled by CUP.

It is present when field 6 (cardholder billing amount) appears.

6.11.4 Reject Code

10105＝invalid characters

6.12 Field 11 System Trace Audit Number

6.12.1 Attribute

n6, 6 numerics with fixed length

6.12.2 Description

A serial of numbers filled by the transaction initiator, the combination value with Field 7, Field 32 and Field 33 is the unique identifier of a transaction.

6.12.3 Usage

The transaction initiator must assign a system trace audit number for every transaction. For resended reversal messages, the number must be the same as that of original reversal transaction. The number remains unchanged throughout the whole transaction cycle.

This field is also a key field. Combining with the value of this field and those of other key fields (field 7, field 32 and field 33), the whole value should be unique. The Participant will use this value to match the original request message when receiving the transaction response message.

6.12.4 Reject Code

10115＝invalid characters

6.13 Field 12 Time, Local Transaction

6.13.1 Attribute

n6, 6 numerics with fixed length

Format: hhmmss

6.13.2 Description

The local time of the acquirer location when the transaction occurs

Format: hhmmss, hh=hour, mm=minute, ss= second.

6.13.3 Usage

In the 0100 and 0200 request message, the acquirer must fill this field with its local time. The acquirer' local time in the related transactions of the original transaction

such as reversal, transfer-in confirmation, deposition confirmation message should be the time in the original cash withdrawal or purchase message.

hh: 00－23

mm: 00－59

ss: 00－59

6.13.4 Reject Code

10125＝invalid numbers or invalid characters

6.14 Field 13 Date, Local Transaction

6.14.1 Attribute

n4, 4 numerics with fixed length

Format: MMDD

6.14.2 Description

The local date of the acquirer location when the transaction occurs

Format: MMDD, MM=month, DD=day.

6.14.3 Usage

In the 0100 and 0200 request message, the acquirer must fill this field with its local date.

The acquirer's local date in the reversal message should be the same as that in the original message.

This field is the original financial transaction date in the dispute resolution advice message and in credit adjustment transaction message.

In a debit adjustment transaction, the local date should be that of the original financial transaction or credit adjustment transaction date.

In a chargeback transaction message, the local date should be that of the original financial transaction or debit adjustment transaction date.

In a representment transaction message, the local date should be the date of the chargeback transaction date.

The range of the local date is:

MM: 01－12

DD: 01－31

6.14.4 Reject Code

10135＝invalid numbers or invalid characters.

6.15 Field 14 Date, Expiration

6.15.1 Attribute

n4, 4 numerics with fixed length

Format: YYMM

6.15.2 Description

The expiration date of bank card is the year and month after which the card expires. For example, the expiration date of the card is April 2005. So it is an expired card from May 1st, 2005.

The card expiration date is contained in the magnetic stripe.

6.15.3 Usage

This field is filled with the expiration date of bank card.

YY: year

MM: month

This field will be filled out by the cardholder in an e-commerce transaction, and then be sent to CUP System by the payment gateway.

"0000" will be filled with in the reject response message or the transaction response message processed by CUP system directly.

6.15.4 Reject Code

10145＝invalid numbers and characters

6.16 Field 15 Date, Settlement

6.16.1 Attribute

n4, 4 numerics with fixed length

Format: MMDD

6.16.2 Description

This field is the transaction settlement date between the acquirer and the issuer.

Format: MMDD, MM= month, DD= day.

6.16.3 Usage

CUP System assigns a settlement date for each received or initiated 0100, 0200, 0220, 0420 and 0432 message, indicating that the transaction will participate in the

settlement on that day. The settlement date will be assigned in the reconciliation message（0520/0522）, indicating the settlement date of the settled transactions in this message. The settlement date will be assigned in the fund settlement message（0620/0630）, indicating the settlement date of the settled transactions in this message. It indicates the previous settlement day in the cutoff message（0820/0830）.

Participants should return the original settlement date in the response message.

In a re-sent message, it is the settlement date in the original message.

The range of settlement date is:

MM: 01－12

DD: 01－31

6.16.4 Reject Code

10155＝invalid numbers or invalid characters

6.17 Field 16 Date, Conversion

6.17.1 Attribute

n4, 4 numerics with fixed length

Format: MMDD

6.17.2 Description

This field is the effective date of the conversion rate for the currency conversion from the original transaction currency to the settlement currency.

The date will be in MMDD format, among which, MM=month, DD=date.

6.17.3 Usage

This field is used when the transaction currency is different from the settlement currency.

The range of conversion date is:

MM: 01－12

DD: 01－31

This field will be filled by CUP.

6.17.4 Reject Code

10165＝invalid numbers or invalid characters

6.18 Field 18 Merchant's Type

6.18.1 Attribute

n4, 4 numerics with fixed length

6.18.2 Description

This field indicates Merchant Category Code (MCC).

6.18.3 Usage

It indicates the service range and type of a merchant. It must exist in the 01xx、02xx and 04xx message. Please refer to the merchant category codes in *Appendix A Code Definitions of Part VI Annex* for detailed values.

6.18.4 Reject Code

10185＝invalid characters

6.19 Field 19 Acquiring Institution Country Code

6.19.1 Attribute

n3, 3 numerics with fixed length

6.19.2 Description

It is the country code of the acquiring institution. Please refer to the *Country Codes（GB/T 2659-94）*.

6.19.3 Usage

This field contains a code that identifies the country of the acquiring institution for the merchant or ATM.

6.19.4 Reject Code

10195＝invalid characters

6.20 Field 22 Point of Service Entry Mode Code

6.20.1 Attribute

n3, 3 numerics with fixed length

6.20.2 Description

Point of Service Entry Mode Code, is the entry mode of cardholder data（for example, PAN and PIN）. Point of service means the place where the transaction is initiated. The definitions of point of service codes are specified in the following table.

Table 36 Definition of Each Digit of Point of Service

1st–2nd digit	PAN Entry Mode	3rd digit	PIN Entry Mode
00	Unknown	0	Unknown
01	Manual	1	PIN included in transaction
02	Magnetic strip read	2	PIN excluded in transaction
03	Bar code read	3-5	Reserved for ISO use
04	OCR coding read	6-7	Reserved for national use
05	Integrated circuit card read, magnetic strip data reliable	8-9	Reserved for private use
06-60	Reserved for ISO use		
61-94	Reserved for national use		
90	Magnetic strip data read and reliable, track 2 data must exist.		
95	Integrated circuit card, card data may be unreliable.		
96-99	Reserved for private use		

6.20.3 Usage

The values of the first and second digits in this field are related to field 60.2.2（terminal entry capability）.

When the 1st-2nd position of this field is “05” or “95”, value “5” must be filled in field 60.2.2

Point of service entry mode codes used at this stage include:

- 021: magnetic strip read with PIN
- 022: magnetic strip read without PIN
- 011: manual entry with PIN
- 012: manual entry without PIN
- 050: IC card read, card data is reliable
- 950: IC card, card data is unreliable

6.20.4 Reject Code

10225＝invalid characters

6.21 Field 23 Card Sequence Number

6.21.1 Attribute

n3, 3 numerics with fixed length

6.21.2 Description

The sequence number of IC card

6.21.3 Usage

It is used for distinguishing between separate cards having the same PAN, and is only used in IC card transactions.

6.21.4 Reject Code

10235＝invalid characters

6.22 Field 25 Point of Service Condition Code

6.22.1 Attribute

n2, 2 numerics with fixed length

6.22.2 Description

Table 37 Point of Service Condition Code

Code	Meaning	Editing related
00	Normal present	
01	Customer not present	PIN data unallowable
02	Un-attended terminal	PIN must be input
03	Suspicious merchant	
05	Customer present, card not present	It must be 01X0 authorization message
06	Pre-authorized request	Pre-authorization code required
08	Mail or telephone order	It must be 01X0 message, but without PIN
10	Customer identity verified	
11	Suspected Fraud	Message type must be 0100 or 0200
12	Security reason	Message type must be 0100 or 0200
13	Representment	
17	Chargeback	
41	Second Chargeback	
42	Normal submission of e-commerce transaction	
43	Pre-authorization request of e-commerce transaction	Pre-authorization code required
44	Second presentment of e-commerce transaction	
45	Chargeback of e-commerce transaction	
60	Additional	

	pre-authorization/additional authorization	
81	Fund collection transaction	
82	Exceptional processing	
83	Credit adjustment initiated by transfer-in side, credit adjustment for deposit initiated by issuer	Credit adjustment for general transaction (e.g. purchase) is usually initiated by acquirer, whereas the credit adjustment for deposit and transfer is initiated by issuer, its flag of debit /credit is different from that of the general transaction. It must be distinguished in the dispute resolution advice messages.
91	Load and unload of IC card based on PBOC E-wallet/Bankbook Standard	

6.22.3 Usage 1: Point of Service Condition

It indicates the condition under which the point of service initiates the transaction. In this usage, the value range at this stage is:

- 00: normal submission
- 02: ATM cash withdrawal, ATM balance inquiry

6.22.4 Usage 2: Expanded Processing Code

It is the supplement of field 3 (transaction processing code), used to distinguish separate transactions having the same processing code but with different transaction types. Those transactions include:

- 06: Pre-authorization completion, used to distinguish from purchase (00)
- 13: Representment, used to distinguish from chargeback (17)
- 17: Chargeback: used to distinguish from representment (13)
- 60: Additional pre-authorization/authorization, used to distinguish from pre-authorization/authorization
- 81: fund collection, used to distinguish from fee collection/fund disbursement-debit (00)
- 82: special adjustment, used to distinguish from credit adjustment (00)
- 83: used to distinguish credit adjustment for a deposit transaction or a transfer transaction from that for a general transaction (e.g. purchase)

6.22.5 Reject Code

10255＝invalid characters

6.23 Field 26 Point of Service PIN Capture Code

6.23.1 Attribute

n2, 2 numerics with fixed length

6.23.2 Description

Table 38 Point of Service PIN Capture Code

Code	Meaning
00-03	Reserved for ISO use
04-12	The maximum number of PIN characters accepted by point of service device
13-59	Reserved for ISO use
60-73	Reserved for national use
80-99	Reserved for private use

6.23.3 Usage

This field describes the maximum number of PIN characters accepted by point of service device.

6.23.4 Reject Code

10265＝invalid characters

6.24 Field 28 Amount, Transaction Fee

6.24.1 Attribute

X + n8, 1-digit flag + 8-digit numerics with fixed length

6.24.2 Description

It is used to notify the issuer of the transaction fee which should be deduced from the cardholder's account. The currency of the transaction fee is the same as the transaction currency.

6.24.3 Usage

The first digit is "C" for crediting and "D" for debiting the cardholder's account.

The 2^{nd} – 9^{th} digits indicate the amount of transaction fee for crediting or debiting the cardholder account. The currency of transaction fee amount is indicated by that of Field 49. If it is RMB, it should contain Jiao and Fen.

6.24.4 Reject Code

10285 =non-numeric characters

6.25 Field 32 Acquiring Institution Identification Code

6.25.1 Attribute

n..11 (LLVAR), 2-digit length value + maximum 11 digits of accepting institution identification code

6.25.2 Description

This field is the accepting institution identification code. The accepting institution should be a Participant that is approved to connect to CUP network and can provide ATM cash withdraw service or merchant acceptance service.

6.25.3 Usage

This code identifies the ATM or POS acquiring institution. For e-commerce gateway directly connected to CUP System, it stands for the code of the bank in which the merchant opens account.

It is a key field. Issuers and CUP use this value, along with transaction transmission date/time, system trace audit number and forwarding institution identification code to match the original request message, and then find the return routing. It should remain the same in the following related transactions.

Acquirers must provide the accepting institution identification code in 01xx, 02xx and 04xx messages.

Issuers should save this field to process transactions, such as fee collection/fund disbursement, chargeback, and so on.

6.25.4 Reject Code

10323＝invalid characters in length field

10324＝length value exceeding 11

6.26 Field 33 Forwarding Institution Identification Code

6.26.1 Attribute

n..11 (LLVAR), 2-digit length value + maximum 11 digits of forwarding institution identification code

6.26.2 Description

This field is the forwarding institution identification code. The forwarding institution should be should be a Participant that is approved to connect to CUP network and sends a transaction request or advice message.

6.26.3 Usage

It is used to identify a CUP Network Participant. Please refer to *Appendix A Code Definitions* of *Part VI Annex*. It provides the unique identification code of each Participant of CUP System.

Forwarding Institution Identification Code is a key information field. Issuers and CUP will use this value, along with transaction transmission date/time, system trace audit number and accepting institution identification code to match the original request message, and then find the return routing. It should remain the same in the following related transactions initiated by the sender.

6.26.4 Reject Code

10333＝invalid characters in length field

10334＝length value exceeding 11

6.27 Field 35 Track 2 Data

6.27.1 Attribute

z..37 (LLVAR), 2-digit length value + maximum 37 bytes (characters) of track 2 data

6.27.2 Description

This field is the track 2 data on the card.

6.27.3 Usage

It is read from the 1st character after the beginning character (;) of track 2, including field separators, excluding the ending sentinel and LRC characters. It is not used in e-commerce transaction or settlement advice.

For CUP card accepted outside Mainland of China, because of different coding standard, the field separator '=' in track 2 data may be changed to 'D' or 'd', it is strongly recommended that the issuing bank can support the field separator with 'D' and 'd'.

6.27.4 Reject Code

10353＝invalid characters in length field

10354＝length value exceeding 37

10355＝invalid Track 2 data or invalid characters

6.28 Field 36 Track 3 Data

6.28.1 Attribute

z...104 (LLLVAR), 3-digit length value + maximum 104 bytes (characters) of track 3 data

6.28.2 Description

This field is the track 3 data on the card.

6.28.3 Usage

It is read from the 1st character after the beginning character (;) of track 2, including field separators, excluding the ending sentinel and LRC characters. It is not used in e-commerce transaction or settlement advice.

6.28.4 Reject Code

10363＝invalid characters in length field

10364＝length value exceeding 104

10365＝invalid Track 3 data or invalid characters

6.29 Field 37 Retrieval Reference Number

6.29.1 Attribute

an12, 12-digit letters and numerics with fixed length

6.29.2 Description

This field is a system reference number for the transaction assigned by Participants, POS terminals or merchants

6.29.3 Usage

This field is a system reference number assigned by the accepting institution to locate the original transaction. It should remain unchanged throughout the whole transaction cycle.

The accepting institution will give a new value to each new transaction, such as purchase, cash withdraw, deposit, and the following related transaction may be happened in different day such as pre-authorization cancellation, pre-authorization completion, refund transaction.

For dispute resolution advice and the following related transaction must be happened on the same day, such as purchase cancellation, reversal, deposit confirmation, the value in this field must be same with that in the original transaction.

The issuer should return this field value in the response message and related chargeback transaction. And also, the value should be printed in the receipt of ATM or POS transaction.

6.29.4 Reject Code

10375＝invalid characters

6.30 Field 38 Authorization Identification Response

6.30.1 Attribute

an6, 6-digit letters and numerics with fixed length

6.30.2 Description

The authorization code for the approved transaction assigned by the issuer or the stand-in authorization code generated by CUP System when a stand-in authorization transaction is processed

6.30.3 Usage

If the authorization code is less than 6 digits, then it should be left-justified, filling up with blanks to the right. There should not be any blank among the code.

In a pre-authorization completion request message, this field should be filled up with the authorization code obtained in the pre-authorization transaction, and then be sent to the issuer.

For a reversal, the value of this field may be obtained from the request message of original transaction such as authorization completing. For cancellation, refund and dispute resolution advice, the value of this field should be obtained from the response message of original transaction.

This field does not exist in the transaction which credits the cardholder account and its related transactions. These transactions include deposits, deposits confirmation, deposits cancellation, fund collection, fund collection cancellation, transfer-in and transfer-in confirmation.

For the authorization transaction with fixed amount initiated by dual messages acquirer outside Mainland of China, it will be converted to purchase transaction when forwarding to issuing bank in Mainland of China, the issuing bank may not return this field. The acquirer should support that and process transaction correctly. Please refer the description of usage 4 for Field 48.

6.30.4 Reject Code

10385＝invalid characters

6.31 Field 39 Response Code

6.31.1 Attribute

an2, 2-digit letters and numerics with fixed length

6.31.2 Description

The response code from the issuer or CUP to the accepting institution indicates the processing information of the received transaction, such as successfully processed, not processed or declined. If the transaction is not processed or declined, this field should be filled up with the reason, and in some cases, this field will remind the card acceptor or POS terminal to pick up the card.

6.31.3 Usage

For every received request message, the issuer should return the processing result in this field to the accepting institution. CUP System will directly send a response to the accepting institution if CUP System fails to forward the message to the issuer. Please refer to *Appendix A Code Definitions* of *Part VI Annex* for details.

6.31.4 Reject Code

10395＝invalid characters

6.32 Field 41 Card Acceptor Terminal Identification

6.32.1 Attribute

ans8, 8-digit letters, numerics and special characters with fixed length

6.32.2 Description

Card acceptor terminal identification code

6.32.3 Usage

If the terminal identification code is less than 8 digits, then it should be left-justified, filled up with blanks to the right.

The terminal identification code is assigned by the accepting institution. It must exist in every transaction request and remain unchanged throughout the whole transaction cycle.

6.32.4 Reject Code

10415＝invalid characters

6.33 Field 42 Card Acceptor Identification Code

6.33.1 Attribute

ans15, 15-digit letters, numbers and special characters with fixed length

6.33.2 Description

This field is the card acceptor identification code, namely the merchant code, is the unique identification code of merchant in the accepting institution network.

6.33.3 Usage

It is assigned by the accepting institution. Also, it must exist in each transaction request message and remain unchanged throughout the whole transaction cycle.

6.33.4 Reject Code

10425＝invalid characters

6.34 Field 43 Card Acceptor Name/Location

6.34.1 Attribute

ans40, 40-digit letters, numbers and special characters with fixed length

6.34.2 Description

This field is the card acceptor name/location, namely the merchant's name/location

6.34.3 Usage

It is filled up by the accepting institution or the merchant, not processed by CUP System. It must appear in every card transaction request message and remain the same in the whole transaction cycle. The information should involve the name of card acceptor's name, city and province. The format is as follows:

Table 39 Usage of Card Acceptor's Name and Address

Sub-field	Position	Length	Attribute		Usage
1	0	3	a	M	Country Code
2	3	2	ans	O	Merchant Province/state Code (if not exist, fill with blank)
3	5	3	ans	O	Area Code (if not exist, fill with bank)
4	8	32	ans	M	Merchant Name/ATM location

- Country Code, e.g., CHN

  This sub-field is required for all acquirers with a valid alphabetic country code which indicates where the transaction is initiated. For valid alphabetic country code, please refer to Chapter A.6 in *Part VI Annex of Technical Specifications on Bankcard Interoperability*

- Merchant Province/State Code: letter code

  This sub-field is only required for the acquirers inside Mainland of China, and will be filled with the Province Code which indicates where the transaction is initiated. For valid Province Code of China, please refer to the following table.

For acquirers outside Mainland of China, this sub-field is optional, and may be filled with blank or other valid value.

Table 40 Province Code of Mainland of China.

City Name	Abbreviation	City Name	Abbreviation
Beijing	BJ	Hubei Province	HB
Tianjin	TJ	Hunan Province	HN
Hebei Province	HE	Guangdong Province	GD
Shanxi Province	SX	Guangxi Auto. area	GX
Neimenggu auto. area	NM	Hainan Province	HN
Liaoning Province	LN	Chongqing	CQ
Jilin Province	JL	Sichuan Province	SC
Heilongjiang Province	HL	Guizhou Province	GZ
Shanghai	SH	Yunnan Province	YN
Jiangsu Province	JS	Tibet	XZ
Zhejiang Province	ZJ	Shanxi Province	SN
Anhui Province	AH	Gansu Province	GS
Fujian Province	FJ	Qinghai Province	QH
Jiangxi Province	JX	Ningxia auto. area	NX
Shandong Province	SD	Xinjiang auto. area	XJ
Henan	HA		

- Area Code:

  This sub-field is only required for the acquirers inside Mainland of China, and will be filled with the 3 digits telephone Area/Region code which indicates where the transaction is initiated.
  For acquirers outside Mainland of China, this sub-field is optional, and may be filled with blank or other valid value.

- Merchant Name/ATM Location:

  This sub-field is required for all acquirers with maximum 32 letters. If less then 32 letters, blanks can be filled after the letters. It is the merchant name for POS transaction and ATM location (including ATM owner name) for ATM transaction.

6.34.4 Reject Code

10435＝invalid characters

6.35 Field 44 Additional Response Data

6.35.1 Attribute

ans..25 (LLVAR), 2-byte length value + maximum 25 bytes of additional response data (letters, numbers and special characters)

6.35.2 Description

This field is the identifier assigned by the issuer for an approved transaction.

It can be used by the issuer for identifying the original transaction.

6.35.3 Usage

The additional response data of the issuer must be effective digits. It will be input into the response message when the issuer approves the transaction, not processed by the acquirer or CUP.

It is an optional field.

The field value of the original response message should be sent to the issuer if a reversal is initiated after an approved response message has been received.

6.35.4 Reject Code

10443＝invalid characters in length field

10444＝length value exceeds 25

6.36 Field 45 Track 1 Data

6.36.1 Attribute

z..79（LLVAR）, 2-byte length value + maximum 79 bytes/characters track 1 data

6.36.2 Description

Track 1 data in the card includes field separators, but excluding beginning, ending and LRC characters.

6.36.3 Reject Code

10453＝invalid characters in length field

10454＝length value exceeds 79

10455＝invalid characters

6.37 Field 48 Additional Data-Private

6.37.1 Attribute

ansb...512 (LLLVAR), 3-byte length value + maximum 512 bytes of private additional data (letters, numbers, special characters and binary numbers)

6.37.2 Description

This field is defined by ISO as private-use field. This Specification defines multiple usages for this field and each usage has its own format. For all usages, the general format is as follows: <length><field identifier><data>

<length>

It indicates the total length (including the field identifier) of this field, 3 bytes.

<field identifier>

It indicates the type of the data following the field identifier, 2 bytes. The format is described in Table 41.

Table 41 Descriptions of Field Identifiers for Field 48

Field Identifier	Corresponding Usage	Description
TT	Usage 1	Text Transmission Information
FS	Usage 2	Fund Settlement Information
CD	Usage 3	Fee Collection/Fund Disbursement Reason
AA	Usage 4	Acquirer Additional information
CI	Usage 5	Clientage Information
AT	Usage 6	Transfer-in/Transfer-out Account Type
PA	Usage 7	Public Payment Information
BC	Usage 8	Suspicious Card Information
BT	Usage 9	Suspicious Card Transaction Information
NK	Usage 10	New Key
IN	Usage 11	CUP Secure Information
PB	Usage 12	Load information on un-specific account of IC card based on PBOC e-wallet/bankbook standard

<data>

It contains the detailed data. The format is defined by <field identifier> and the maximum length is 510 bytes.

6.37.3 Usage 1: Text Transmission

It is used in the text information transmission message between Participants, with the maximum length of 512 bytes. The sequence and value of information in this usage are as follows:

Table 42 Text Transmission Information Value

Sequence Number of Position	Definition	Length	Value
1	Usage identifier	2 bytes	TT
2	Free text format	Maximum 510 bytes	

6.37.4 Usage 2: Fund Settlement

It is used in the fund settlement message between CUP and Participants. The sequence and value of information in this usage are as follows:

Table 43 Fund Settlement Information Value

Sequence Number of Position	Definition	Length	Value
1	Usage identifier	2 bytes	FS
2	Fund settlement information	177 bytes	Refer to the following description for detailed value

The simple format of "fund settlement information" is as follows:

Table 44 Simple Format of Fund Settlement Information

Sequence Number	Content	Length
1	Amount, Debit transaction	16 bytes
2	Amount, Debit reversal	16 bytes
3	Amount, Credit transaction	16 bytes
4	Amount, Credit reversal	16 bytes
5	Amount, Debit, dispute resolution	16 bytes
6	Amount, Credit, dispute resolution	16 bytes
7	Amount, Debit, fee collection/fund disbursement	16 bytes
8	Amount, Credit, fee collection/fund disbursement	16 bytes
9	Amount, Debit, service fee	16 bytes
10	Amount, Credit, service fee	16 bytes
11	Net settlement amount identifier	1 bytes
12	Amount, net settlement	16 bytes

Note 1: Dispute resolution transaction means dispute resolution advice of credit adjustment, debit adjustment, chargeback, representment and special adjustment.

Note 2: There are two ways for filling up the debit and credit amount of service fee. When the service fee is cleared and settled by day, the amount is filled every day. When the service fee is cleared by day and settled by month, these two fields will be filled up with the settled fee amount at the end of a month and "0" in other days.

Note 3: Settlement amount = gross credit amount – gross debit amount = (credit transaction amount + credit reversal transaction amount + dispute resolution transaction credit amount + fee collection/fund disbursement transaction credit amount + credit amount of service fee amount) －(debit transaction amount + debit reversal transaction amount + dispute resolution transaction debit amount + fee collection/fund disbursement transaction debit amount + debit amount of service fee amount)

If the settlement amount is minus, the net settlement amount identifier is "D", and the net settlement amount = － settlement amount. Otherwise, the net settlement amount identifier is "C", and the net settlement amount = settlement amount.

Note 4: Branding service fee is not included in this usage.

6.37.5 Usage 3: Fee Collection/Fund Disbursement Reason

The additional information field in the fee collection/fund disbursement message indicates the reasons of fee collection/fund disbursement. The maximum length is 255 bytes. The sequence and value of information in this usage are as follows:

Table 45 Collection/Payment Reason Information Value

Sequence Number of Position	Definition	Length	Value
1	Usage identifier	2 bytes	CD
2	Identification whether transactions are related	2 bytes	01: Related to transaction 02: Un-related to transaction
3	Record information whether transactions are related	Less than 251 bytes	Refer to the following description for detailed value

Record format related to transaction is as in Table 46:

Table 46 Record Format Relevant to Transaction

Position	Length	Format	Content	Description
0	4	n	Original message type	
4	6	n	Original system trace number	Field 11 in original request message
10	10	n	Original system date/time	Field 7 in original request message
20	11	ans	Original acquiring institution code	Field 32 in original request message, left justified, and fill-up blanks to the right
31	11	ans	Original forwarding institution code	Field 33 in original request message, left justified, and fill-up blanks to the right
42	8	ans	Original terminal code	Field 41 in original request message
50	15	ans	Original merchant code	Field 42 in original request message
65	Maximum 186	ans	Related text explanation	Free format text description

Record format un-related to transaction is as in Table 47:

Table 47 Record Irrelevant to Transaction

Position	Length	Format	Content	Description
0	11	ans	Receiving institution code	It indicates the specific receiving institution, either a Participant or a branch of the Participant. It is the settlement basis for the Participant. Left justified, and fill-up blanks to the right.
11	Maximum 240	ans	Related Text explanation	Free format text description

6.37.6 Usage 4: Acquirer Additional Information

It is used by the acquirer to transmit some special information of the transaction (it can be used in the public payment program). The maximum length is 510 bytes.

This usage is applicable to international transactions and is used to identify whether the authorization request from the acquirer outside Mainland of China is with a fixed amount or an estimated amount. For the authorization request with a fixed amount, CUP system will change it into a purchase transaction and send it to the single massage issuer inside Mainland of China (in this instance, the single message issuer may not return the authorization identification response code (field 38), the dual message acquirer should process correctly); for the authorization request with an estimated amount, CUP system will change it into a pre-authorization and send it to the single massage issuer inside Mainland of China. The sequence and value of information are shown in the following table:

Table 48 Acquirer Additional Transaction Information Value

Sequence Number of Position	Definition	Length
1	Usage Identifier	2 bytes
2	Function code	3 bytes
3	The information of original transaction amount and currency	23 bytes
4	Free text format	484 bytes maximum

Note 1: Usage identifier—2 bytes, value "A".

Note 2: Function code—3 bytes, value is as follows:

Function Code	Definition
100	Original authorization－fixed amount
101	Original authorization－estimated amount

If the acquirer cannot provide this field, this field is filled by blanks.

Note 3: The original transaction amount and currency information. It is applicable to the transaction for which the currency conversion has been conducted before it is sent to CUP system.

Field	Data Type	Description
Original transaction amount	n12	Transaction amount before the first currency conversion
Original transaction currency	an3	Transaction currency before the first currency conversion
Original conversion rate	n8	Conversion rate for the first currency conversion

If the acquirer cannot provide this field, this field is filled by blanks.

Note 4: Free text format –maximum 484 bytes.

6.37.7 Usage 5: Clientage Information (Participants inside Mainland of China Use Only)

It is used in establishing/withdrawing clientage message and illustrating the detailed information. The sequence and value of information in the usage is showed as follows:

Table 49 Clientage Information Value

Sequence Number of Position	Definition	Length	Value
1	Usage Identifier	2 bytes	CI
2	Clientage information	110 bytes	Please refer to the following description for the detailed value
3	Additional transaction information	402 byte maximum	Free to fill

The format of the clientage information is as follows:

Table 50 Clientage Information Format

Content	Data type	Other Explanation
Clientage code 1	ans32	Mandatory

Clientage code 2 (optional)	ans32	Blank to be filled with if the code does not exist.
Maximum amount limit (optional)	n12	12-bit numbers with fixed length; the last two bits are decimal bits; 0 is filled if the limit does not exist.
Minimum amount limit (optional)	n12	12-bit numbers with fixed length; the last two bits are decimal bits; 0 is filled if the limit does not exist.
Clientage effective period	n8	Format is YYYYMMDD
Clientage relation time limit (optional)	n3	Unit is month. Clientage relation time limit is 999 months maximum. 0 is filled if the limit does not exist.
Transaction card currency (optional)	an3	ISO 4217 standard; 0 is filled if it does not exist.
Clientage relation corresponding password (optional)	bit64	The item is not included if it does not exist.

6.37.8 Usage 6: Transfer-in/Transfer-out Account Type (Participants inside Mainland of China Use Only)

The sequence of information in the usage is as follows:

Table 51 Transfer-in/Transfer-out Account Type Information Value

Sequence Number of Position	Definition	Length	Value
1	Usage Identifier	2 bytes	AT
2	Transfer-out account type	2 bytes	01: Bank card
3	Transfer-in account type	2 bytes	01: Bank card
4	Additional transaction information	Maximum 506 bytes	Free content
Note 1: Usage Identifier —2 bytes, value “AT”. Note 2: Transfer-out account type—2 bytes: 01-bank card, others-reserved. It is only used in the message of transfer-in message generated by the acceptor. While 0 is filled in the three-side transfer message initiated by the acceptor, the transfer-in or transfer-out message split by the switch center and the transfer-out message initiated by the acceptor. Note 3: Transfer-in account type—2 bytes: 01-bank card, others-reserved. It is only used in the message of transfer-out message generated by the acceptor. While 0 is filled in the three-side transfer message initiated by the acceptor, the transfer-in or transfer-out message split by the disposal center and the transferring-in message initiated by the acceptor. Note 4: The rest bytes can be filled with the additional transaction information. Maximum 506 bytes			

6.37.9 Usage 7: Public Payment Information (Participants inside Mainland of China Use Only)

It is used in the public payment program.

The sequence and value of information in the usage is showed as follows:

Table 52 Public Payment Business Information Value

Sequence Number of Position	Definition	Length	Value
1	Usage Identifier	2 bytes	PA
2	Identifier whether to support partial fund collection	1 bytes	Y: support partial N: Not to support partial
3	Free text format	Maximum 509 bytes	Agree on between the acceptor and issuer
Note 1: "Identifier whether to support partial fund collection" is filled by the acceptor, which is used for the issuer to judge whether to approve the authorization for partial amount of fund collection transaction. If no such identifier, fill with blank. If the issuer approves the partial amount, the issuer should fill Field 95(replaced amount) with the actual approved amount. Note 2: "Free text format" is used for filling the additional information of public payment program, such as the order number for e-commerce transaction or mobile phone payment. The format can be decided by the issuer and the acceptor.			

6.37.10 Usage 8: Suspicious Card Information (Participants inside Mainland of China Use Only)

It's used in the advice message of the suspicious card number sent by CUP system to the issuer.

a) Usage identifier—2 bytes, value"BC".

b) Suspicious card number information includes maximum 12 pieces of suspicious card information. The format is as follows:

Table 53 Suspicious Card Information Format

Content	Length	Field Attribute	Description
Number of the suspicious card information	2 bytes	N	Maximum 12
First suspicious card information			The part is the detailed information of the suspicious card. The maximum number is 12
……			
Each item of the suspicious card information includes the following content:			
Card number	21 bytes	an	2 bits of length + Card number. Left justified and fill blanks to the right
Monitoring level	1 byte	an	1: high

			2: middle 3: low
Action identifier	1 byte	an	1: new add 2: delete
Effective time	6 bytes	n（yymmdd）	Detailed date of startup
Note: The rest bytes can be filled on the basis of need.			

6.37.11 Usage 9: Suspicious Card Transaction (Participants inside Mainland of China Use Only)

It is used in the advice message of the suspicious card transaction sent by the issuer to CUP. Each message only contains one suspicious card transaction.

a) Usage identifier—2 bytes, value “BT”.

b) The transaction information of the suspicious card includes the following content:

Table 54 Suspicious Card Transaction Information

Content	Length	Field Attribute	Description
Message Type ID	4 bytes	n	Transaction type
PAN	21 bytes	an	2 bits of length + Card number. left justified and fill blanks to the right
Processing_code	6 bytes	n	Transaction processing code
Amt_trans	12 bytes	n	Transaction amount
Transmsn_date_time	10 bytes	n	MMDDHHMMSS
Sys_trace_audit_num	6 bytes	n	
Mchnt_type	4 bytes	n	
Pos_cond_code	2 bytes	N	
Acq_inst_id_code	13 bytes	ans	2 bits of length + maximum 11 types. Left justified and fill blanks to the right
Fwd_inst_id_code	13 bytes	ans	2 bits of length + less than 11 bytes. Left justified and fill blanks to the right
Retrivl_ref_num	12 bytes	an	
Card_accptr_termnl_id	8 bytes	ans	
Card_accptr_id	15 bytes	ans	
Card_accptr_name_loc	40 bytes	ans	Please refer to the corresponding technical specification for the format.
Currcy_code_trans	3 bytes	an	
Reserved	20 bytes	ans	The first byte: same region/different region

			symbol. 0: same region 1: different region. the 2nd to 20th bytes: reserved
Note: The rest bytes can be filled on the basis of need.			

6.37.12 Usage 10: New Key

It is used in the key reset message to store the new key which is defined by CUP and the Participant. It can meet the requirement of the key with double or triple or even longer length.

a) Usage identifier –2 bytes, value "NK".

b) 4080-bit binary number.

It is used in the transaction in which CUP system initiatively resets the key or CUP system resets the key upon the request of the Participant. When the CUP system resets the data key, the new generated key which is encrypted by the member master key (MMK) will be put in this field and sent to the Participant.

New Key is generated by the HSM of CUP system. After the Participant receives the new key distributed by CUP system, the key should be decrypted by HSM before installing and using.

6.37.13 CUPSecure Certification Information

This usage is applicable to the E-commerce transaction which is certified with CUPSecure. The sequence and value of information in the usage is showed as follows:

Table 55 CUPSecure certification information

Sequence number of position	Description	Length
1	Usage identifier	2 bytes, filled by CUP
2	Value of Certification DN	Maximum 255 bytes, filled by CUP
Note 1: Usage identifier – 2 bytes, 'IN' Note 2: Value of Certification DN – Maximum 255 bytes, attribute is ans, is the unique identification code of the user certification.		

6.37.14 Load Information on Un-specific Account of IC card Based on PBOC E-wallet/bankbook Standard

This usage is used to fill the Point of Sale Entry Mode for transfer-in card (E-wallet card) based on PBOC e-wallet/bankbook standard.

Detail format is as below:

Table 56 Point of Sale Entry Mode for transfer-in card (E-wallet card) based on PBOC e-wallet/bankbook standard.

Sequence number of position	Description	Length
1	Point of Sale Entry Mode	3 bytes, refer to the description of field 22

6.37.15 CUPSecure Certification Information

10483=Invalid characters in the length field

10484＝length value exceeds 512

10485＝invalid characters

6.38 Field 49 Currency Code, Transaction

6.38.1 Attribute

an3, 3 alphabetic and numeric characters with fixed length

6.38.2 Description

It identifies the currency for Field 4 (transaction amount).

6.38.3 Usage

Please refer to ISO 4217 standard.

6.38.4 Reject Code

10495＝invalid characters

6.39 Field 50 Currency Code, Settlement

6.39.1 Attribute

an3, 3 alphabetic and numeric characters with fixed length

6.39.2 Description

settlement currency

It is used to designate the currency of Field 5 (settlement amount), Field 82 (credit, service fee amount), Field 84 (debit, service fee amount) Field 86 (credit, transaction amount), Field 87 (credit, reversal amount), Field 88 (debit, transaction amount), field 89 (debit, reversal amount), Field 97 (amount, net settlement). In addition, it also indicates the currency of all amounts in Field 48 (additional data-private) when it is used for fund settlement.

This field is filled by CUP.

6.39.3 Usage

Please refer to ISO 4217.

When the settlement currency and transaction currency are different, the settlement currency must be identified in the settlement request message and response message.

6.39.4 Reject Code

10505＝invalid code

6.40 Field 51 Currency Code, Cardholder Billing

6.40.1 Attribute

an3, 3 alphabetic and numeric characters with fixed length

6.40.2 Description

This field contains the cardholder billing currency.

6.40.3 Usage

The field only exists in the international transaction message. It is filled by CUP and is used to identify the currency code of Field 6 (Amount, Cardholder Billing)

If Field 6 (Amount, Cardholder Billing) appears, the field is required.

6.40.4 Reject Code

10515＝invalid characters

6.41 Field 52 PIN Data

6.41.1 Attribute

64 bit binary number

6.41.2 Description

PIN Cryptogram

6.41.3 Usage

If Field 22 (Point Of Service Entry Mode Code) identifies that the PIN is input, the field must appear. The Personal Identification Number (PIN) must be encrypted before it is put into this field. The format of PIN and the encrypting algorithm are designated in Field 53 (Security Related Control Information)

The length of PIN is 12 digits maximum. For the detailed algorithm, please refer to the *Part IV Specification on Data Security Transmission Control*.

6.41.4 Reject Code

N/A

6.42 Field 53 Security Related Control Information

6.42.1 Attribute

n16, 16 bit fixed length number character

6.42.2 Description

The control information related to security.

6.42.3 Usage 1: Usage in Key Management Message

The field is used in the key management message (0800/0810, 0820/0830). The data structure is defined as follows:

Table 57 Field 53 - Key Management Message Data Structure Definition

Name	Data type	Definition	Value
Key - Type	n1	Key reset type	1: PIK 2: MAK
Encryption Method Used	n1	Encryption algorithm symbol	0: Single length DES algorithm 6: Double length DES algorithm other value: Other encrypted algorithm (not used)
Reserved	n14	Reserved for use	All set to ”0”

6.42.4 Usage 2: Usage in Transaction Message

The field is used to identify the PIN type in the transaction message.

The data structure is defined as follows:

Table 58 Field 53 - Transaction Message Data Structure Definition

Name	Data type	Definition	Value
PIN format used	n1	PIN format	1: ANSI X9.8 Format (without PAN) 2: ANSI X9.8 Format (with PAN)
Encryption Method Used	n1	Encryption algorithm symbol	0: Single length DES algorithm 6: Triple length DES algorithm other value: other encrypted algorithm (not used)
Reserved	n14	Reserved use	All set to “0”
Note: please refer to the *Part IV Specification on Data Security Transmission Control* for the encryption method ANSI X9.8 format.			

6.42.5 Reject Code

10535＝invalid characters

6.43 Field 54 Additional Amounts

6.43.1 Attribute

an…040 (LLLVAR), 3-byte length value + maximum 40 bytes (alphabetic and numeric characters) of the actual balance

6.43.2 Description

The field is parted into two sections. One is the ledger balance amount and the available balance amount. The ledger balance amount is the amount of the fund in the account .The available balance amount is the amount which can be used on the current day.

The available balance amount = the ledger balance amount + credit limit – authorized amount

During a POS purchase transaction, if the balance is not sufficient, the issuer may respond the available balance amount of the cardholder for reference.

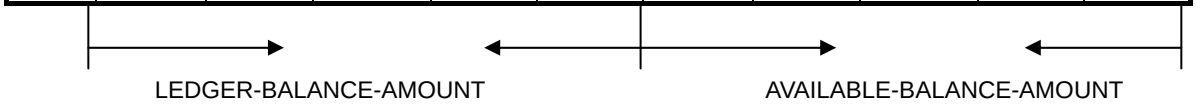
When the field only has one section of balance, the other section is filled with all "0".

6.43.3 Usage

The name of the field is user-defined. The standard field "Additional Amounts" with variable length is adopted. The length is 40. 20 bytes compose a record and there are 2 records altogether. The content is defined as follows:

Table 59 Definition

Field length	Account type	Balance type	Currency code	Balance symbol	Balance	Account type	Balance type	Currency code	Balance symbol	Balance
n3	n2	n2	an3	an1	n12	n2	n2	an3	an1	n12



The value of the above data is as follows:

Table 60 Value of Data Item of Actual Balance Field

Data Element Length	040
Account type	Saving Account: 10 Credit card Account: 30
Balance type	Ledger balance amount: 01 Available balance amount: 02
Currency code	If it is a RMB account, the field is filled with 156
Balance symbol	Debit amount: D Credit amount: C

Balance	If the transaction fails, the value is all 0

6.43.4 Reject Code

10543＝invalid characters in length field

10544＝length value not equal to 40

10545＝invalid characters

6.44 Field 55 IC Card Data

6.44.1 Attribute

This is a field of variable length (LLLVAR) with the maximum length of 255 bytes beginning with a 3-byte value that indicates the length.

Attribute of data supported:

b: binary (binary number or bit combination).

cn: BCD code. Right justified, ‘0’ padded to the left. For example, the number 12345 may be stored in the data of n12 authorization amount, as ’00 00 00 01 23 45’.

an: each byte includes an alphanumeric data element (A-Z, a-z, 0-9).

var. up to N: variable length with the maximum length of N.

6.44.2 Description

This field will include different subfields according to different types of transaction. CUP system only forwards this unique data for IC card transactions between the acquirer and the issuer, and will not change or process the data in any manner. To meet the needs of changing of the subfields, this field uses a TLV (tag-length-value) representation, i.e. each subfield consists of tag (T), length of subfield value (L) and subfield value (V).

The attribute of tag is bit and is represented with hexadecimal system occupying 1~2 bytes. For example, “9F33” is a tag that occupies two bytes, while “95” is a tag that occupies one byte. If the last five bits of the first byte of the tag (note: bytes are sequenced from the left to the right, so that the first byte is the byte at far left. bit sequencing follows the same rule) are “11111”, it shows this tag occupies two bytes, e.g. “9F33”; otherwise the tag occupies one byte, e.g. “95”.

Attribute of subfield length (i.e. L itself) is also bit with its length of 1~3 bytes. Specific coding rules are as follows:

a) When the far left bit of the far left byte of the L field (namely bit 8) is 0, it means the L field occupies one byte, and the next 7 bits (namely bit 7~ bit 1) means length of subfield value, and binary number is used to represent decimal value of the length of subfield value. For example, when a field value occupies 3 bytes, then its subfield

length is represented by "00000011". Therefore, if length of subfield value is between 1~127 bytes, then the L field itself only occupies one byte.

b) When the far left bit of the far left byte of the L field (namely bit 8) is 1, it means the L field occupies more than one byte, and the decimal value of the next 7 bits (namely bit 7~ bit 1) determine the length of the field. For example, if the far left byte is 10000010, it means the L field has another two bytes after this byte. The decimal value of the following bytes means the length of the subfield value. For example, when L field is "1000 0001 1111 1111", it means the subfield values occupies 255 bytes. Therefore if the subfield value length is between 128～255 bytes, the L field itself should occupy two bytes.

Subfields adopt different values based on different meanings of subfields. As the subfields of this field contain information that is unique to IC cards and IC terminals instead of characteristic information of Switch Center, which is only a bridge for data transmission, specific values of the subfields shall be determined with reference to IC cards and IC card terminal specifications and change correspondingly as such specifications change. Refer to "China Financial Integrated Circuit (IC) Card Debit and Credit Specifications V2.0 – Cards" and "China Financial Integrated Circuit (IC) Cards Debit and Credit Specifications V2.0 – Terminals" for domestic transactions. However, as all these organizations (including CUP) define cards and terminals based on EMV2000 standards, the tags will be the same regardless of adopting specific values. Therefore only tags are provided in this Specification and network institutions may use tags to find specific values of different organizations correspondingly. Tag, length value and attribute of each subfield are shown in the following tables.

6.44.3 Usage

Table 61 List of Basic Information Subfields of Field 55

Name of Subfield	Subfield Abbreviation	Subfield Tag Value	Subfield Value Length (Unit: Byte)	Subfield Attribute
Application Cryptogram	AC	9F26	8	b
Cryptogram Information Data	-	9F27	1	b
Issuer Application Data	IAD	9F10	maximum 32	b
Unpredictable Number	-ATC	9F37	4	b
Application Transaction Counter	TVR	9F36	2	b
Terminal Verification Result	-	95	5	b
Transaction Date	-	9A	3	cn (including a 6-digit valid number, format

				YYMMDD)
Transaction Type	-	9C	1	cn (including 2-digit valid number)
Transaction Amount or Amount Authorized	-	9F02	6	cn (including 12-digit valid number)
Transaction Currency Code	-	5F2A	2	cn (including 3-digit valid number)
Application Interchange Profile	-	82	2	b
Terminal Country Code	-	9F1A	2	cn (including 3-digit valid number)
Amount Other	-	9F03	6	cn (including 12-digit valid number)
Terminal Capabilities		9F33	3	b

Table 62 List of Optional Information Subfields of Field 55

Name of Subfield	Subfield Abbreviation	Subfield Tag Value	Subfield Value Length (Unit: Byte)	Subfield Attribute
Cardholder Verification Method Result	CVMR	9F34	3	b
Terminal Type	-	9F35	1	cn (2-digit valid number)
Interface Device Serial Number	IFD	9F1E	8	an
Dedicated File Name	DF	84	5～16	b
Terminal Application Version Number	—	9F09	2	b
Transaction Sequence Counter	-	9F41	2～4	cn (including 4-digit to 8-digit valid number)
Issuer Authentication Data	-	91	8～16	b
Issuer Script Template 1	-	71	1～128	b
Issuer Script Template 2	-	72	1～128	b
Issuer Script Results	-	DF31	5～21	b

6.44.4 Reject Code

N/A

6.45 Field 57 Additional Transaction Data

6.45.1 Attribute

ans...100 (LLLVAR), 3-byte length value + additional transaction data of the maximum 100 bytes (alphabetic, numeric and special characters)

6.45.2 Description

ISO has defined this field as private data. This Specification applies this field in many usages, each of which has the specific format. In all conditions, the following general format is used: <length><field identifier><data>

<length>

It means the total length of the field (including <field identifier>), occupying 3 bytes.

<field identifier>

It indicates the type of subsequent data with length of 2 bytes.

Table 63 Field Identifier Description of Field 57

Field Identifier	Corresponding usage	Description
AB	Usage 1	Public Payment
TA	Usage 2	Total Amount
CI	Usage 3	Cardholder Information

<data>

Format of specific data depends on the <field identifier>, and the maximum length is 98 bytes.

6.45.3 Usage 1: Public Payment Information (Participants inside Mainland of China Use Only)

Additional transaction information. It is used by issuers and CUP to transmit some special information of the transaction.

a) Usage identifier – 2 bytes, with the value “AB” meaning public payment program.

b) Other bytes are used by issuers and CUP to fill with additional transaction information. The format is as follows:

Table 64 Field 57 Usage 1

Content	Data Type
Issuer additional transaction information	an20

CUP additional transaction information	an20
Reserved	an58

"Issuer additional transaction information" is completed by an issuer to transmit some special information of transactions (may be used for value_added business). For example, winning information of transactions, score information of cardholder, or other information that the issuer should inform the cardholder. If this field has no content, fill with spaces.

"CUP additional transaction information" is completed by CUP to transmit some special information of transactions.

Other bytes are reserved for other purposes.

6.45.4 Usage 2: Total Amount (Participants inside Mainland of China Use Only)

It is used for additional pre-authorization (or additional authorization) transactions and completed by the issuer. This field indicates the total authorization amount after the additional pre-authorization.

1. Usage identifier – 2 bytes with the value of "TA" meaning total authorization amount.

2. The format of other bytes is as follows:

Table 65 Field 57 Usage 2

Content	Data Type
Accumulative total amount	n12
Reserved	ans86

When an additional pre-authorization (or additional authorization) is successful, the accumulative total amount = amount of this additional pre-authorization + previous total amount; if the additional pre-authorization (or additional authorization) fails, accumulative total amount = previous total amount.

6.45.5 Usage 3: Cardholder Information

In processing some transactions like depositing transaction, the acceptor needs to verify the cardholder information such as cardholder name, which is returned by the issuer, to avoid depositing the fund into a wrong account.

The sequence and value of this usage is as follows:

Table 66 Usage 3 of field 57

Position Sequence	Description	Length	Value
1	Usage Identifier	2 bytes	CI
2	Name	Maximum 20 bytes	Letter or Chinese character.
3	Other information	78 bytes	Specific format and value are defined by participants. CUP recommends inputting information related to customer or cardholder, such as mailing address.

6.45.6 Rejection Code

10573＝invalid character in the length field

10574＝length value exceeds 100

10575＝invalid character

6.46 Field 58 Transaction Data Based on PBOC E- Wallet /Bankbook IC Card Standards

IC (PBOC) Data Reserved

6.46.1 Attribute

ans...100(LLLVAR), IC (PBOC) with 3-byte length value ＋ IC (PBOC) card transaction data of maximum 100 bytes (letters, numeric characters, special symbols)

6.46.2 Description

This field is used to store the data used to calculate MAC1、MAC2、MAC3 in the IC card transaction which complies with the PBOC standards. In the message field, the first and second bytes are usage identifier in ASCII code .The usage is identified with the corresponding English abbreviation. For example: Usage 3 is the unload confirmation request of IC card based on PBOC e-wallet/bankbook standard. And the first and second bytes correspond to the value ‘UA’, namely Unload Authentication.

Table 67 Usage Identifier of Field 58

Usage Identifier	Corresponding usage	Description
RQ	Usage 1	Load/unload request of IC Card based on PBOC E-wallet/Bankbook Standard
RP	Usage2	Load/unload response of IC Card based on PBOC E-wallet/Bankbook Standard
UA	Usage3	Unload authentication of IC Card based on PBOC E-wallet/Bankbook Standard

6.46.3 Usage1: Load/Unload Request of IC Card based on PBOC E-wallet/Bankbook Standard

It is used in the load/unload request message of IC card based on PBOC E-wallet/Bankbook Standard. It identifies which field values need to calculate MAC1 in the message.

a) Usage identifier – 2 bytes, value 'RQ'.

b) In load/unload request message of IC card based on PBOC E-wallet/Bankbook Standard, the fields which need to calculate MAC1 include:

Table 68 Fields to Calculate MAC1, MAC2 and TAC in Load/Unload Request Message of IC Card Based on PBOC E-wallet/Bankbook Standard

Subfield of Field 58	Name	Description	Length (byte)	Attribute
58.1	Issuer IIN	A number used to uniquely identify Issuer	8	cn
58.2	Card application serial number	A number assigned by issuer, conform to the national standard GB/T14504-93	10	cn
58.3	Pseudo random number	A number produced by IC card randomly	4	b
58.4	Key index number	A number assigned to uniquely identify the key index number in a key version	1	cn
58.5	Key edition number	Key edition of load, purchase, cash withdrawal, TAC calculation, credit limit change or unload transaction	1	b
58.6	Counter of bankbook or e-wallet online transaction	Increase when transaction happens	2	b
58.7	Calculate MAC1			

	subfield			
58.7.1	Bankbook or e-wallet balance	E-wallet balance: available balance Bankbook balance: Sum of the available balance and credit limit	E-wallet balance: 3 Bankbook balance: 4	b
58.7.2	Transaction amount	Current transaction amount	4	b
58.7.3	Transaction type identifier, TTI	01 bankbook load 02 e-wallet load 03 bankbook unload	1	cn
58.7.4	Terminal machine serial number	A number used to uniquely identify a merchant terminal	6	cn
58.8	MAC1		4	b
Total			45	
Note 1: for fields with attribute of "cn", residual bits should be made up with "F". Note 2: if a subfield is not in the message, fill with a binary 0.				

6.46.4 Usage 2: Load/Unload Response of IC Card based on PBOC E-wallet/Bankbook Standard

It is used in the load/unload response message of IC card bases on PBOC E-wallet/Bankbook Standard. It identifies which field values need to calculate MAC2 in the message.

a) Usage identifier – 2 bytes, value"RP".

b) In the message of load/unload response message of IC card based on PBOC E-wallet/Bankbook Standard, the fields which need to calculate MAC2 include:

Table 69 Fields to Calculate MAC1, MAC2 and TAC in Load/Unload Response Message

subfield of Field 58	Name	Description	Length (byte)	Attribute
58.1	Issuer IIN	A number used to uniquely identify Issuer	8	cn
58.2	Card application serial number	A number assigned by issuer, conform to the national standard GB/T14504-93	10	cn
58.3	Pseudo random number	A number produced by IC card randomly	4	b
58.4	Key index number	A number assigned to uniquely identify the key index number in a key edition	1	cn
58.5	Key edition number	Key edition of load, purchase, cash withdrawal, TAC calculation, credit limit change or unload transaction	1	b

58.6	Counter of bankbook or e-wallet online transaction	Increase when transaction happen	2	b
58.7	Calculate MAC2 subfield			
58.7.1	Transaction amount	Current transaction amount	4	b
58.7.2	Transaction type identifier, TTI	01 bankbook load 02 e-wallet load 03 bankbook unload	1	cn
58.7.3	Terminal machine serial number	A number used to uniquely identify merchant terminal	6	cn
58.7.4	Transaction date	Date of Host computer (CCYYMMDD), the "CC"represent: century	4	cn
58.7.5	Transaction time	Time of host computer (HHMMSS)	3	cn
58.8	MAC2		4	b
Totalize			48	
Note 1: for fields with attribute of "cn", residual bits should be made up with "F". Note 2: if a subfield is not in the message, fill with a binary 0.				

6.46.5 Usage 3: Unload Confirmation Request of IC Card based on PBOC E-wallet/Bankbook Standard

It is used in the unload confirmation request message of IC card based on PBOC E-wallet/Bankbook Standard. It identifies which field values need to calculate MAC3 in the message.

a) usage identifier –2 bytes, value"UA".

b) In the unload confirmation request message of IC card based on PBOC E-wallet/Bankbook Standard, the fields which need to calculate MAC3 include:

Table 70 Fields to Calculate MAC1, MAC2 and TAC in Unload Confirmation Request Message of IC Card Based on PBOC E-wallet/Bankbook Standard

Subfield of Field 58	Name	Description	Length (byte)	Attribute
58.1	Issuer IIN	A number used to uniquely identify Issuer	8	cn
58.2	Card application serial number	A number assigned by issuer, conform to the national standard GB/T14504-93	10	cn
58.3	Pseudo random number	A number produced by IC card randomly	4	B
58.4	Key index number	A number assigned to uniquely	1	cn

		identify the key index number in a key edition		
58.5	Key edition number	Key edition of load, purchase, cash withdrawal, TAC calculation, credit limit change or unload transaction	1	b
58.6	Calculate MAC3 subfield			
58.6.1	Bankbook or e-wallet balance	Sum of the available balance and credit limit	4	b
58.6.2	Counter of bankbook or e-wallet online transaction	Increase when transaction happens	2	b
58.6.3	Transaction amount	Current transaction amount	4	b
58.6.4	Transaction type identifier, TTI	03 bankbook unload	1	cn
58.6.5	Terminal machine serial number	A number used to alone identify merchant terminal	6	cn
58.6.6	Transaction date	Date of host computer (CCYYMMDD)	4	cn
58.6.7	Transaction time	Time of host computer (HHMMSS)	3	cn
58.7	MAC3		4	b
Total			52	
Note 1: for fields with attribute of "cn", residual bits should be made up with "F". Note 2: if a subfield is not in the message, fill with a binary 0.				

6.46.6 Reject Code

10583＝invalid characters in length field

10584＝length value exceeds 100

10585＝invalid characters

6.47 Field 59 Detailed Inquiry Data[1]

6.47.1 Attribute

ans..600 (LLLVAR), 3-byte length value + detail inquiring data of maximum 600 bytes (alphabets, numbers and special characters)

[1] The field is not used, and is reverved for CUP to define.

6.47.2 Description

It is used to store the request and response data in the detailed inquiry message. Maximum ten transaction details are stored in a response record.

ISO defines this field as the private data. This Specification applies this field in many usages, each of which has the specific format. In all usages, the following general format is used: <length ><field identifier><data>

<length >

It illustrate the general length of the field (including <field identifier>), and the length is 3 bytes.

<field identifier>

It identifies the data type, and the length is 2 bytes.

Table 71 Field Identifier of Field 59

Field Identifier	Corresponding Usage	Description
QL	Usage1	Query Latest: The latest ten detailed inquiries
QD	Usage2	Query Date: inquiry request according to date
QR	Usage3	Query Result: detailed inquiry result

<data>

It is the detailed data, and its format is decided by <field identifier>, and the length is 598 bytes maximum.

6.47.3 Usage1: The Latest Ten Detailed Inquiries

It is used in the message of detailed inquiry request of the latest ten transactions.

a) Usage identifier—2 bytes, value “QL”

b) The request of inquiring the latest ten transaction details. Definition of this field is as follows:

Table 72 Field 59—Definition of the Field for the Latest Ten Details Inquiries

Name	Description	Length (byte) and Attribute
FIELD-LENGTH	Field length	n3
USAGE	QL: ten latest details inquiry	an2
CURRENT-SEQUENCE-NUMBER	Current details sequence number	n3

6.47.4 Usage 2: Inquiry Request According to Date

It is used in the request message of details inquiry according to the date.

a) Usage identifier—2 bytes, value “QD”

b) The request of inquiring the transaction details according to the date, and the definition of this field is as follows:

Table 73 Field 59—Definition of Inquiry Request According to Date

Name	Description	Length (byte) and Attribute
FIELD-LENGTH	Field length	n3
USAGE	QD: inquiry according to the date	an2
CURRENT-SEQUENCE-NUMBER	Current details sequence number	n3
BEGIN-DATE	Beginning date of details	n8 (YYYYMMDD)
END-DATE	Ending date of details	n8 (YYYYMMDD)
Note: The current details sequence number is filled up on the principle: If there are 35 records, when the request is sent for the first time, the current details sequence number should be filled with 001; when the request is sent for the second time, the current details sequence number should be filled with 011; when the request is sent for the third time, the current details sequence number should be filled with 021, and so on.		

6.47.5 Usage 3: Details Inquiry Result

It is used in the response message of details inquiry.

a) Usage identifier—2 bytes, value “QR”

b) It is used to store the inquiry result of transaction details, and the definition of this field is as follows:

Table 74 Field 59—Definition of Details Inquiry Result Information Field

Name	Description	Length (byte) and Attribute
FIELD-LENGTH	Field length	n3
USAGE	QR: the details inquiry result	an2
CURRENCY-CODE, ACCOUNT	Cardholder billing currency code	an3
TOTAL — SATISFIED-RECORDER-NUMBER	The number of all record satisfying the inquiry condition	n3
RESULT1	Inquiry result record 1	ans50
RESULT2	Inquiry result record 2	ans50
…	…	…
RESULTn	Inquiry result record n	ans50

Definition of the inquiry result record is follows:

Table 75 Field 59—Definition of Inquiry Result Record

SEQUENCE-NUMBER	Details sequence number	n3
TRANSACTION-DATE	Transaction date	n8
CURRENCY-CODE, TRANSACTION	Transaction currency code	an3
TRANSACTION-AMOUNT	Transaction amount	X+n12
BALANCE-AMOUNT	Balance	X+n12
MEMO-CODE	Remark code	ans10

Inquiry result record appears repeatedly in the details data in turn. The field-length can identify how many records are included in this field. Records are arranged on the sort ascending of the transaction time (increasing).

6.47.6 Reject Code

10593＝invalid characters in length field

10594＝length value exceeds 600

10595＝invalid characters

6.48 Field 60 Self-Defined Field

Reserved

6.48.1 Attribute

ans..030 (LLLVAR), 3-byte length value + data of maximum 30 bytes (alphabets, numbers and special characters)

6.48.2 Description

This field is a self-defined field. It includes the following subfields.

Table 76 Composition of Field 60

Position	1-4bytes	5-14bytes	15-30bytes
subfield	60.1	60.2	Reserved for future use

6.48.3 Field 60.1 Message Reason Code

6.48.3.1 Attribute

n4, numerics with 4-byte length

6.48.3.2 Description

This field is filled by the message sender in the message of reversal and dispute resolution advice (credit adjustment, debit adjustment, chargeback, representment, exceptional processing), deposit confirmation, transfer-in confirmation, fee collection and fund disbursement etc.. It is used to describe the reason of sending the

message. If the issuer signs the stand-in authorization agreement with CUP, this field is filled by CUP in the transaction request message which is forwarded to the issuer due to the fact that it does not meet stand-in authorization conditions. In this case, this field indicates the stand-in authorization condition which the transaction request does not meet, such as 'exceed the single transaction limit for VIP card normal stand-in authorization' etc. If the issuer does not sign the agreement with CUP, this field is filled with '0000' in the 0100, 0200, 0220 request message. '0000' is filled in other 0100, 0200, 0220 message.

For detailed reason code please refer to *Appendix A Code Definitions* in the *Part VI Annex*.

6.48.4 Field 60.2 Additional Point Of Service Information

6.48.4.1 Attribute

ans10, ten-bytes, letters, numbers or special characters with fixed length

6.48.4.2 Description

It is used to distinguish the differences of transactions with the same transaction type in the initiating method, location or terminal (ATM, POS, counter, Internet etc.).

This field is divided into 8 subfields:

Table 77 Composition of Field 60.2

Subfield Name	Position	Length (byte)
F60.2.1: reserved	1	1
F60.2.2: terminal entry capability	2	1
F60.2.3: chip condition code	3	1
F60.2.4: reserved	4	1
F60.2.5: transaction channel type	5-6	2
F60.2.6: reserved	7	1
F60.2.7: chip card authentication reliability indicator	8	1
F60.2.8: reserved	9-10	2

Note 1: Position 1: (Field 60.2.1): reserved.
Note 2: Position 2: terminal entry capability (Field 60.2.2): The value is a decimal number code. It indicates whether the terminal could read the IC card in IC card transaction.
Note 3: Location 3: chip condition code (Field 60.2.3): The value is a decimal number code. It indicates whether the IC card reading capability of IC card terminal is available when using IC card magnetic information on it. Whether the card or terminal is damaged can be judged according to the field value. At the same time whether it is a counterfeit card transaction can also be judged.
Note 4: When the value of field 22 is 02 or 90, the value of 60.2.2 is 5 and the value of 60.2.3 is 1 or 2, it indicates that the chip in the card is problematic or the chip terminal doesn't work, and so the chip card can only conduct the transaction through reading the magnetic information, which is called Fall Back.
Note 5: Location 4: (Field 60.2.4) reserved.
Note 6: Location 5-6: (Field 60.2.5) transaction channel type.
Note7: Location 7: (Field 60.2.6): reserved.
Note8: Location 8: chip card authentication reliability indicator (Field 60.2.7): the value is a decimal number code. It indicates the reliability of the card authentication in IC card transaction. The acquirer will set the value when problems occur to the merchant or terminal; Or CUP will set the value when either the acquirer or issuer cannot carry out the card authentication.
Note9: Location 9-10: reserved.

The value of each subfield is defined as follows:

Table 78 Field Value of Subfields of Field 60.2

Code	Definition
F60.2.1/Position 1: Reserved: reserved, filled in with 0	
F60.2.2/Position 2: Terminal Entry Capability:	
0	Unknown
2	Magnetic stripe read capability
5	Chip-capable terminal. If the first and second position of field 22 is 05 or 90, this field must be 5.
Subfield 60.2.3/Position 3: Chip Condition Code	
0	Not applicable; subsequent subfields are present
1	Last read was not a chip transaction or was a successful chip transaction
2	Last read at VSDC terminal was chip read, but transaction failed
Subfield 60.2.4/Position 4: Reserved: reserved, filled in with 0	
Subfield 60.2.5/Position 5-6: Transaction Channel Type	
00	Not defined
01	ATM-Automatic Teller Machine
02	CDM-Cash Deposit Machine
03	POS-Point Of Sale
04	EDC-Electronic Data Capture
05	Self-terminal

06	Bank Counter and Terminal
07	Internet
08	Wireless Device
09	Telephone Bank
10	Load/Upload Device
11	Mobile POS
12	CUP Public Services Platform
13	Characteristic service for granger's bank card
14~99	Reserved
Subfield 60.2.6/Position 7: Reserved, filled with "0"	
Subfield 60.2.7/Position 8: Chip Card Authentication Reliability Indicator	
0	Fill for field 60, if position 8 or subsequent positions are present.
1	Acquirer indicates that card authentication may not be reliable.
2	CUP system indicates that the acquirer is inactive for card authentication.
3	CUP system indicates that the issuer is inactive for card authentication.
Subfield 60.2.8/Positions 9-10: Electronic Commerce Identification (ECI)	
00	Not applicable
01	Conduct CUP safe entry mode authentication, and cardholder security information is input successfully
03	Conduct the certification of Issuer SAA direct authentication authorization, and the SAA authentication authorization is successful
05	Conduct the authentication of Issuer SA direct status verification, and the cardholder status verification is successful.
06	Tried to conduct the issuer direct status verification
07	Failed CUPSecure safe authentication, but adopt the security technology of channel encryption
08	Failed CUPSecure safe authentication, and does not adopt the security technology of channel encryption

6.48.5 Reject Code

10603＝invalid characters in length field

10604＝length value exceeds 30

10605＝invalid characters

6.49 Field 61 Cardholder Authentication Information

6.49.1 Attribute

ans...200 (LLLVAR), 3-byte length value + cardholder authentication information with maximum 200 bytes (letters, numbers and special characters)

6.49.2 Description

This field is a self-defined field with 6 subfields as follows:

Table 79 Definition of Field 61

field length	61.1 (ID number)	61.2 (CVN check result)	61.3 (PVV check result)	61.4 (card-not-present check value)	61.5 (ARQC authentication result)	61.6 (security information check value)
n3	ans22	ans1	ans1	ans7	ans7	ans..168
Note 1: If the subsequent subfield appears and the previous subfield is not required, the value of the unused subfield is filled with space.						

6.49.3 Field 61.1 ID Number

6.49.3.1 Attribute

ans22, 22-bytes, letters or numbers with fixed length

6.49.3.2 Usage

The specific usage is as follows:

Table 80 Usage of Field 61.1

ID Type	ID Number
n2	ans..20

The value of ID type is as follows:

- 01: ID Card
- 02: Serviceman Card
- 03: Passport
- 04: Home-Visiting Certificate
- 05: Taiwan Visitor Certificate
- 06: Police Card
- 07: Soldier Card
- 99: Other ID Card; if the serial number is less than 20 digits, space will be padded to the right.

The field is used to save ID number, telephone number and certificate serial number of the cardholder.

For the purpose of security, this subfield in the response message returned by the issuer should be filled with zeros only.

6.49.4 Field 61.2 CVV Check Result

6.49.4.1 Attribute

ans1, 1-byte letter or number with fixed length

6.49.4.2 Usage

If the Participant requests CUP to verify the CVN, this field is used to store the check result.

The definition is as follows:

- 1: succeeded
- 2: failed
- 3: unverified

If the Participant does not request CUP to verify CVN, this field is filled with space.

6.49.5 Field 61.3 PVV Check Result

6.49.5.1 Attribute

ans1, 1-byte, letter or number with fixed length

6.49.5.2 Usage

If the Participant requests CUP to verify PVV, this field is used to store the check result. The definition is as follows:

- 1: succeeded
- 2: failed
- 3: unverified

If the Participant does not request CUP to verify PVV, this field is filled with space.

6.49.6 Field 61.4 Card-not-present Check Value

6.49.6.1 Attribute

ans7, 7-digit letters or numbers with fixed length

6.49.6.2 Usage

This field is to conduct the ID authentication for the card-not-present internet transaction by adding the check value. The usage is as follows:

Table 81 Usage of Field 61.4

Switch Center Identifier	Card-not-present Check Value	Card-not-present check Result
ans3	n3	ans1

Switch Center Identifier value is:

——CUP: China Unionpay

Card-not-present check value:

——For CUP, this field is filled with the CVN2 check value

For the purpose of security, this subfield in the response message returned by the issuer should be filled with zeros only.

Card-not-present check result:

——If the Participant requests CUP to verify the CVN2, this field is used to store the check result.

The definition is as follows:

- 1: succeeded
- 2: failed
- 3: unverified

——If the Participant does not request CUP to verify CVN2, this field is filled with space.

6.49.7 Field 61.5 ARQC Authentication Result

6.49.7.1 Attribute

Ans1, 1-byte, letter or number with fixed length

6.49.7.2 Usage

This subfield records the result of card authentication with ARQC method. For a Full Issuer fully supporting IC card transactions, if it requests CUP to conduct ARQC authentication on behalf of it, CUP system will store the result in this field and send it to the issuer. After receiving this value, the issuer may decide whether it accepts or rejects the transaction on its own discretion. The value is as follows:

Table 82 Value of Field 61.5

Value	Description
1	Transaction passes ARQC authentication
2	Transaction fails ARQC authentication
3	No ARQC authentication conducted

6.49.8 Field 61.6 Security Information Check Value

6.49.8.1 Attribute

ans..168, 168-bytes, letters, numbers or special characters with variable length

6.49.8.2 Usage

This field mainly conducts ID authentication for card-not-present internet transactions through security authentication method. The specific usage is as follows:

Table 83 Usage of Field 61.5

Switch Center identifier	Security Authentication Information
ans3	ans..165

Switch Center identifier value is:

——CUP: China Unionpay

The format of this field is as follows:

<format identifier.> <data>

The format identifier indicates the type of the following data, length is 2 bytes:

Table 84 Structure for Field 61.6

Format Identifier	Usage	Description
SC	Usage 1	CUP Safe Entry Mode
AR	Usage 2	Issuer authentication result under CUP Safe Entry Mode
SA	Usage 3	Issuer direct status authentication mode
CR	Usage 4	Issuer authentication result for CAVV under issuer direct status authentication mode

<data> consists of the specific information; its format is depended on the <format identifier> with maximum length of 163 bytes.

6.49.8.2.1 Usage 1: CUP Safe Entry Mode

Used in the transaction request message for internet transaction

1. Usage identifier – 2 bytes, value is 'SC'.

2. Fill with cardholder status information. Detail is as follows

Table 85 Usage 1: CUP Safe Entry Mode

Name	Description	Length (Byte) and Attribute
SR reference number	A series of digits assigned for the transaction by routing server (SR)	n6, It is required for acquirer in purchase and authorization transaction, not appeared in the related transaction such as purchase cancellation, pre-authorization completion
Authentication time	System working date and time of SR	n19, format:YYYY-MM-DD hh:mm:ss, It is required for acquirer in purchase, pre-authorization and authorization transaction, not appear in the related transaction such as purchase cancellation and pre-authorization completion.
Logistic Delivery Identifier	0: Logistic delivery 1: Non-logistic delivery 2: unknown	ans1, It is required for acquirer in purchase pre-authorization, authorization transaction, not appear in the related

		transaction such as purchase cancellation, pre-authorization completion.
Sub-merchant ID		ans8, the preceding four digits is the MCC for the sub-merchant of internet merchant. The back four digits is sequence number, from 0000 to 9999. It is optional for acquirer. If unavailable, not appear.
Authentication method	S: Static authentication – Issuer asks cardholder to enter static information such as ID, CVV in the interface provided by SC D: Dynamic authentication – Issuer asks cardholder to enter dynamic information such as dynamic PIN in the interface provided by SC A: Certificate authentication – Issuer chooses to have SC to authenticate the certificate instead.	ans1. Filled by CUP system. Only appear in the message of purchase, pre-authorization and authorization. Not appear in the request message sent from acquirer.
Authentication result of stand-in certificate authentication	Y: authentication passed N: authentication not passed A: no authentication	ans1. Filled by CUP system. Only appear in the message of purchase, pre-authorization and authorization. Not appear in the request message sent from acquirer.
PIN for internet payment		192bit. Filled by CUP system. Only appear in the message of purchase, pre-authorization and authorization. Not appear in the request message sent from acquirer.
Name		Ans20. Filled by CUP system. Only appea in the message of purchase,

		pre-authorization and authorization. Not appear in the request message sent from acquirer.
Birthday date		n8. format: YYYYMMDD Filled by CUP system. Only appear in the message of purchase, pre-authorization and authorization. Not appear in the request message sent from acquirer.
Issuing date		n8. format: YYYYMMDD Filled by CUP system. Only appear in the message of purchase, pre-authorization and authorization. Not appear in the request message sent from acquirer.
Other reserved authentication information		ans40
Note: If one subfield does not appear or have not enough data to fill, padding with space.		

6.49.8.2.2 Usage 2: Issuer Authentication Result under CUP Safe Entry Mode

Used in the response message of internet transaction

1. Usage identifier – 2 bytes value is AR

2. Indicate issuer's authentication result. Detail definition is as follows:

Table 86 Usage 2: Issuer Authentication Result under CUP Safe Entry Mode

Name	Description	Length (byte) and Attribute
SR Sequence number	A series of digits assigned for the transaction by routing server (SR)	n6. Required for issuer

Authentication time	Working date and time of routing server (SR)	n19. format:YYYY-MM-DD hh:mm:ss required for issuer
Issuer's authentication result	Value is as below: 1: Error. Transaction is rejected by CUP system 2. Cardholder passed status verification 3. Cardholder did not pass status verification 4. Cardholder does not participant CUPSecure	n1. Required for issuer

6.49.8.2.3 Usage 3: Issuer Direct Status Authentication Mode

Used in the request message of internet transaction

1. Usage identifier – 2 bytes. Value is SA

2. Fill the CAVV value and the arithmetic value used to calculate the CAVV. Definition is as follows:

Table 87 Usage 3: Issuer Direct Status Authentication Mode

Name	Description	Length (byte) and Attribute
SR Sequence number	A series of digits assigned for the transaction by routing server (SR)	n6. All zero is filled when sent from the acquirer
Authentication time	Working date and time of routing server (SR)	n19. format:YYYY-MM-DD hh:mm:ss All zero is filled when sent from the acquirer
Logistic Delivery Identifier	0: Logistic delivery 1: Non-logistic delivery 2: Unknown	ans1. Required for acquirer in purchase, pre-authorization, authorization transaction. Space is filled in the related transaction such as purchase cancellation, pre-authorization completion.
Sub-merchant ID		ans8. The preceding four digits is the CC for the sub-merchant of internet merchant. The back four digits is the sequence number, from 0000 to 9999. It is optional for acquirer, if not available,

		fill with space.
CAVV arithmetic identifier	Value is as below: 0: Reserved 1: Reserved 2: CVN with ATN 3: Reserved 4: CUP algorithm	ans1. Required for acquirer in purchase, pre-authorization, authorization transaction, not appear in the related transaction such as purchase cancellation, pre-authorization completion.
CAVV value	Refer to the following table for details	cn20. Required for acquirer in purchase, pre-authorization, authorization transaction, not appear in the related transaction such as purchase cancellation, pre-authorization completion.

CAVV value consists of the following 7 parts of subfield, each subfield is proximate and in seriation.

Table 88 Structure of CAVV value

Name	Description	Length (byte) and Attribute
Authentication result ID in SA authentication mode	Value is as below: 00: Authentication successful and field 60.2.8 must be filled with '05' 05: Authentication could not be completed and field 60.2.8 must be '07' 09: Authentication failed and field 60.2.8 does not appear 07: Attempt authentication (when issuer or cardholder do not participant CUPSecure) and field 60.2.8 must be '06' 08: Attempt authentication (when issuer participants CUPSecure, but could not complete authentication) and field 60.2.8 must be '06'.	cn1
Second authentication result ID	Indicate other authentication method used by issuer SA, value is as below: 00: No second authentication result ID	cn1

	11: Reserved 12: Reserved	
CAVV key identifier	Depended on the key used by SA. Standard value for SA is '01' or '02', value is as below 01: The first pair of CAVV key 02: The second pair of CAVV key 03-99: Reserved	cn1
CAVV value	CAVV value calculated by SA, 3 bytes of number	cn2
Un-prescient number	Indicate the last 4 digits of ATN (Authentication reference number)	cn2
ATN (Authentication Reference Number)	The 16 digits used by SA to identify transaction	cn8
Reserved	Filled with '0'	cn5
Note: If some subfields are not available, filled with '0'		

6.49.8.2.4 Usage 4: Issuer Authentication Result for CAVV under Issuer Direct Status Authentication Mode

Used in the response message of internet transaction

1. Usage identifier – 2 bytes, value is CR

2. Fill the CAVV verification result ID. Definition is as below:

Table 89 Usage 4: Issuer Authentication Result for CAVV under Issuer Direct Status Authentication Mode

Name	Description	Length (byte) and Attribute
CAVV verification result ID	Value is as below: 0: No CAVV verification 1: CAVV authentication failed - For successful SA authentication (field 60.2.8 must be 05) 2: CAVV verification successful – For successful SA authentication (field 60.2.8 must be 05) 3: CAVV verification successful – For attempting	ans1. Required for issuer

	SA authentication (field 60.2.8 must be 06) 4: CAVV verification failed - For attempting SA authentication (field 60.2.8 must be 06) 5: Reserved	

6.49.9 Reject Code

10613＝invalid characters in length field

10614＝length value exceeds 200

6.50 Field 62 Switch Center Data

6.50.1 Attribute

ans…200 (LLLVAR), 3-byte length value + switch center data with maximum 200 bytes of letters, numbers or special characters

6.50.2 Description

CUP Switching Data

ISO defines this field as private data. This Specification uses this field for multiple applications; each application has a specific format. For all usages, the following general format is applied: <length ><field identifier><data>

<length >

Describe the total length of the field (including <field identifier>), and the length is 3 bytes.

<field identifier>

Describe the type of subsequent data, and the length is 2 bytes.

<data>

The detailed data, and the format is decided by <field identifier>, and the length is no more than 198 bytes.

6.50.3 Usage[2]

Table 90 Structure of field 62

Usage identifier	Usage	Description
IO	Usage 1	Information from international organization

[2] At this stage, this field is not used for CUP card transactions.

6.50.4 Reject Code

10623＝invalid characters in length field

10624＝length value exceeds 200

10625＝invalid characters

6.51 Field 63 Financial Network Data

6.51.1 Attribute

ans…200（LLLVAR）, 3-byte length value + financial network data with maximum 200 bytes of letters, numbers and special characters

6.51.2 Description

Data of financial networks

6.51.3 Usage

The field is reserved for future use.

6.51.4 Reject Code

10633＝invalid characters in length field

10634＝length value exceeds 200

10635＝invalid characters

6.52 Field 66 Settlement Code

6.52.1 Attribute

n1, 1-digit number with fixed length

6.52.2 Description

Settlement response code

6.52.3 Usage

It is used in the settlement response message and indicates whether the receiver agrees with the settlement result.

Table 91 Settlement Code List

Settlement Code	Description
0	Reserved for ISO use
1	Balanced reconciliation
2	Unbalanced reconciliation
3	Error
4-5	Reserved for ISO use

6-7	Reserved for national use
8-9	Reserved for private use

6.52.4 Reject Code

10665＝invalid settlement code

6.53 Field 70 Network Management Information Code

6.53.1 Attribute

n3, 3-digit numbers with fixed length

6.53.2 Description

It is a network management function code which is used to differentiate messages with the same message type code and message format but different functions.

6.53.3 Usage 1: Network Management and Key Reset Message Identifier

Combined with the message type identifier of 0800/0810, 0820/0830, this field indicates the network management and key reset message.

Table 92 Field 70—Usage of Network Management and Key Reset Message Identifier

Message Type	Network Management Information Code	Transaction Type
0820/0830	001	Participant signs on / CUP system informs Participant that CUP system is enabled
0820/0830	002	Participant signs off / CUP system informs Participant that CUPS is disabled
0800/0810	101	CUP resets the key
0820/0830	101	Participant requests to reset the key
0820/0830	201	CUP starts date switch
0820/0830	202	CUP ends date switch
0820/0830	301	Echo test

6.53.4 Usage 2: Text, Fund Settlement and Risk Control Message Identifier (Participants inside Mainland of China Use Only)

Combined with the message type code of 0620/0630, this field indicates the text information, fund settlement and risk control message.

Table 93 Field 70—Usage of Text, Fund Settlement and Risk Control Message Identifier

Message Type	Network Management Information Code	Transaction Type
0620/0630	280	Fund settlement information

0620/0630	800	Text information sent to CUP by Participant
0620/0630	801	Text information sent to Participant by CUP
0620/0630	802	Suspicious card notification sent to issuer by CUP
0620/0630	803	Suspicious card transaction notification sent to CUP by issuer

6.53.5 Usage 3: Reconciliation Message Identifier (Participants inside Mainland of China Use Only)

Combined with the message type identifier of 0520/0530, 0522/0532, this field indicates the reconciliation message.

If the message type is 0520/0530, it indicates the reconciliation information sent to the acquirer by CUP. The field value is:

Table 94 Field 70—Usage of Reconciliation Message Identifier

Network Management Information Code	Reconciliation Contents
270	Cash Withdrawal, Balance Inquiry (balance inquiry will involve in reconciliation from the date of charging service fee)
271	Pre-authorization, Additional pre-authorization, Pre-authorization Cancellation, (Online) Pre-authorization Completion, Pre-authorization Completion Cancellation, (Offline) Pre-authorization Completion, Purchase, Purchase Cancellation (Online) Refund Collection Fund Payment, Fund Payment Cancellation Load and cash replenish on appointed account Remittance
272	General Transfer, load on un-appointed account (the acquirer here is referred as transfer-in side)
273	Deposit, Deposit Confirmation, Deposit Cancellation

If the message type is 0522/0532, it is the reconciliation information sent by CUP to the issuer. The field value is:

Table 95 Field 70 Value—Usage of Reconciliation Message Identifier

Network Management Information Code	Reconciliation Contents
270	Cash Withdrawal, Balance Inquiry (balance inquiry will involve in reconciliation from the date of charging service fee)

271	Pre-authorization, Additional pre-authorization, (Online)Pre-authorization Cancellation, (Manual)Pre-authorization Cancellation, (Online) Pre-authorization Completion, Pre-authorization Completion Cancellation, (Offline) Pre-authorization Completion, Dual to single settlement advice, Purchase, Purchase Cancellation Refund Collection Payment, Payment Cancellation Load and cash replenish on appointed account Remittance
273	General transfer, load on un-appointed account (the issuer here is referred as to transfer-out side)
276	Deposit, Deposit Confirmation, Deposit Cancellation

6.53.6 Usage 4: Stand-in Authorization Advice Information and Reconciliation Request Message Identifier (Participants inside Mainland of China Use Only)

Combined with the message type code 0800/0810, this field indicates the acquiring/acquiring termination/sending completion of stand-in authorization advice information, and reconciliation request message.

Table 96 Field 70—Usage of Stand-in Authorization Advice Information and Reconciliation Request Message Identifier

Message Type	Network Management Information Code	Transaction Type
0800/0810	078	Stand-in authorization advice request
0800/0810	079	Terminate acquiring the stand-in authorization advice
0800/0810	090	Request for reconciliation

6.53.7 Usage 5: Advice for Script Processing Result of IC Card Based on PBOC Debit/Credit Standards

Combined with the message type code 0620/0630, it indicates that the acquirer needs to send the advice of script processing result when a transaction includes the issuer's script.

Table 97 Field 70-- IC Card Script Processing Result Advice Based on PBOC Standards on Debit/Credit Card

Message Type	Network Management Information Code	Transaction Type
0620/0630	951	IC card script processing result advice based on PBOC standards on debit/credit card

6.53.8 Reject Code

10705＝invalid code

6.54 Field 74 Credit, Transaction Number

6.54.1 Attribute

n10, 10-digit numbers with fixed length

6.54.2 Description

Number of credit transactions, excluding reversals.

6.54.3 Usage

This field is only used for reconciliation messages.

It is only effective in reconciliation messages in types of A, B, C, E, F, G and H.

This field indicates that during the designated reconciliation period the number of the successful credit transactions (or the credit transactions that should be successful), that is the total number of transactions that successfully credit to the cardholders' accounts, excluding the reversal and dispute resolution advice number. For the detailed usage, please refer to the *Appendix E Explanation on Clearing and Reconciliation* in the *Part VI Annex*.

6.54.4 Reject Code

10745＝invalid characters

6.55 Field 75 Credit, Reversal Number

6.55.1 Attribute

n10, 10-digit numbers with fixed length

6.55.2 Description

Number of credit transactions caused by reversal transactions

6.55.3 Usage

The field is only used in reconciliation messages.

It is only effective in reconciliation messages in types of A, B, E, F and H. 0 shall be filled in C and G type reconciliation messages.

In a reconciliation message, this field indicates the number of successful credit reversals (or reversals that should be successful) in the designated reconciliation period. For the detailed usage, please refer to the *Appendix E Explanation on Clearing and Reconciliation* in the *Part VI Annex*.

6.55.4 Reject Code

10755＝invalid characters

6.56 Field 76 Debit, Transaction Number

6.56.1 Attribute

n10, 10-digit numbers with fixed length

6.56.2 Description

The number of debit transactions, excluding the number of reversal and dispute resolution transactions

6.56.3 Usage

This field is only used in reconciliation messages.

It is only effective in reconciliation messages in types of A, B, C, E, F, G and H.

This field indicates that during the designated reconciliation period the number of the successful debit transactions (or the debit transactions that should be successful), that is the total number of transactions that successfully debit to the cardholders' accounts, excluding the reversal and dispute resolution advice number. For the detailed usage, please refer to the *Appendix E Explanation on Clearing and Reconciliation* in the *Part VI Annex*.

6.56.4 Reject Code

10765＝invalid characters

6.57 Field 77 Debit, Reversal Number

6.57.1 Attribute

n10, 10-digit numbers with fixed length

6.57.2 Description

Number of debit transactions caused by reversal transactions

6.57.3 Usage

The field is only used in reconciliation messages.

It is only effective in reconciliation messages in types of A, B, E and F. 0 shall be filled in C, G and H type reconciliation messages.

In a reconciliation message, this field indicates the number of successful debit reversals (or reversals that should be successful) in the designated reconciliation period. For the detailed usage, please refer to the *Appendix E Explanation on Clearing and Reconciliation* in the *Part VI Annex*.

6.57.4 Reject Code

10775＝invalid characters

6.58 Field 78 Transfer Number[3]

6.58.1 Attribute

n10, 10-digit number with fixed length

6.58.2 Description

Number of transfer transactions

6.58.3 Usage

This field is only used in reconciliation messages.

This field indicates the number of general transfer transactions in the designated reconciliation period when the Participant acts as the acquirer of transfer transactions.

6.58.4 Reject Code

10785＝invalid characters

6.59 Field 79 Transfer Reversal Number

6.59.1 Attribute

n10, 10-digit number with fixed length

6.59.2 Description

Number of transfer-in and out reversal transactions

6.59.3 Usage

This field is required by ISO8583 (version 87). 0 shall be filled in the reconciliation messages as defined by this Specifications.

6.59.4 Reject Code

10795＝invalid characters

[3] CUP system does not conduct reconciliation with acquirers for transfer transactions and this field is not used currently.

6.60 Field 80 Balance Inquiry Number

6.60.1 Attribute

n10, 10-digit numbers with fixed length

6.60.2 Description

number of successful balance inquiry transactions

6.60.3 Usage

It is only effective in reconciliation messages in types of A and E. 0 shall be filled in other types of messages.

This field indicates that during the designated reconciliation period the number of the successful balance inquiry transactions when the Participant is the acquirer or issuer. For the detailed usage, please refer to the *Appendix E Explanation on Clearing and Reconciliation* in the *Part VI Annex*.

The Field 70 of A and E type reconciliation message (network management information code) is 270.

6.60.4 Reject Code

10805＝invalid characters

6.61 Field 81 Authorization Number

6.61.1 Attribute

n10, 10-digit numbers with fixed length

6.61.2 Description

Number of successful authorization transactions

6.61.3 Usage

This field is only used in reconciliation messages.

It is only effective in reconciliation messages in types of B and F. 0 shall be filled in other types of messages.

This field indicates that during the designated reconciliation period the number of the successful authorization transactions and additional authorization transactions when the Participant is the acquirer or issuer. For the detailed usage, please refer to the *Appendix E Explanation on Clearing and Reconciliation* in the *Part VI Annex*.

The Field 70 of B and F type reconciliation message (network management information code) is 271.

6.61.4 Reject Code

10815＝invalid characters

6.62 Field 82 Credit, Service Fee Amount

6.62.1 Attribute

n12, 12-digit numbers with fixed length

6.62.2 Description

Credit amount of service fee

6.62.3 Usage

This field is the receivable service fee of Participants and is only used for reconciliation messages, and not involved in the reconciliation.

In a reconciliation message, this field indicates the total service fee amount that the Participant should pay to CUP during the designated reconciliation period. For the detailed usage, please refer to the *Appendix E Explanation on Clearing and Reconciliation* in the *Part VI Annex*.

6.62.4 Reject Code

10825＝invalid characters

6.63 Field 84 Debit, Service Fee Amount

6.63.1 Attribute

n12, 12-digit numbers with fixed length

6.63.2 Description

Debit amount of service fee

6.63.3 Usage

This field is the payable service fee of the Participant and is only used for reconciliation messages and not involved in the reconciliation.

In a reconciliation message, the field indicates the total service fee that the Participant should pay to CUP in the designated reconciliation period. For the detailed usage, please refer to the *Appendix E Explanation on Clearing and Reconciliation* in the *Part VI Annex*.

6.63.4 Reject Code

10845＝invalid characters

6.64 Field 86 Credit, Transaction Amount

6.64.1 Attribute

n16, 16-digit numbers with fixed length

6.64.2 Description

Credit amount of transactions excluding reversal transaction amount

6.64.3 Usage

This field is only used in reconciliation messages.

It is only effective in reconciliation messages in types of A, B, C, E, F, G and H.

In a reconciliation message, this field indicates the total amount of the successful credit transactions (or credit transactions that should be successful) in the designated reconciliation period, excluding the reversal amount. For the detailed usage, please refer to the *Appendix E Explanation on Clearing and Reconciliation* in the *Part VI Annex*.

6.64.4 Reject Code

10865＝invalid characters

6.65 Field 87 Credit, Reversal Amount

6.65.1 Attribute

n16, 16-digit numbers with fixed length

6.65.2 Description

Credit amount caused by reversal transactions

6.65.3 Usage

This field is only used in reconciliation messages.

It is only effective in reconciliation messages in types of A, B, E, F and H.0 shall be filled in C and G type reconciliation messages.

In a reconciliation message, this field indicates the total amount of the successful credit reversal transactions (or credit reversal transactions that should be successful) in the designated reconciliation period. For the detailed usage, please refer to the *Appendix E Explanation on Clearing and Reconciliation* in the *Part VI Annex*.

6.65.4 Code

10875＝invalid character

6.66 Field 88 Debit, Transaction Amount

6.66.1 Attribute

n16, 16-digit numbers with fixed length

6.66.2 Description

Debit amount of transactions excluding reversal transaction amount

6.66.3 Usage

This field is only used in the reconciliation message.

It is only effective in reconciliation messages in types of A, B, C, E, F, G and H.

In a reconciliation message, this field indicates the total amount of the successful debit transactions (or debit transactions that should be successful) in the designated reconciliation period, excluding the reversal amount. For the detailed usage, please refer to the *Appendix E Explanation on Clearing and Reconciliation* in the *Part VI Annex*.

6.66.4 Reject Code

10885＝invalid characters

6.67 Field 89 Debit, Reversal Amount

6.67.1 Attribute

n16, 16-digit numbers with fixed length

6.67.2 Description

debit amount caused by reversal transactions

6.67.3 Usage

The field is only used in the reconciliation message.

It is only effective in reconciliation messages in types of A, B, E and F.0 shall be filled in C, G and H type reconciliation messages.

In a reconciliation message, this field indicates the total amount of the successful debit reversal transactions (or debit reversal transactions that should be successful) in the designated reconciliation period. For the detailed usage, please refer to the *Appendix E Explanation on Clearing and Reconciliation* in the *Part VI Annex*.

6.67.4 Reject Code

10895＝invalid characters

6.68 Field 90 Original Data

6.68.1 Attribute

n42, 42-digit numbers with fixed length

6.68.2 Description

This field is used in reversal, cancellation, deposit confirmation, transfer confirmation and dispute resolution advice transactions and contains the following subfields:

Table 98 Composition of Field 90

Position	1-4 bytes	5-10 bytes	11-20 bytes	21-31 bytes	32-42 bytes
Subfield	90.1	90.2	90.3	90.4	90.5

6.68.3 90.1 Original Message Type

6.68.3.1 Attribute

n4, 4-digit numbers with fixed length

6.68.3.2 Description

This subfield contains the message type of the original transaction.

6.68.4 90.2 Original System Trace Number

6.68.4.1 Attribute

n6, 6-digit numbers with fixed length

6.68.4.2 Description

This subfield contains the original system trace number, namely the field 11 of the original request message.

6.68.5 90.3 Original System Date and Time

6.68.5.1 Attribute

n10, 10-digit numbers with fixed length

Format: MMDDhhmmss

6.68.5.2 Description

This subfield contains the system date and time of the original transacting, namely the field 7 of the original message.

6.68.6 90.4 Original Acquirer ID

6.68.6.1 Attribute

n11, 11-digit numbers with fixed length

6.68.6.2 Description

This subfield contains the acquirer ID of the original transaction, namely the field 32 of the original request message, without the length value. Right justified and padding with 0 to the left.

6.68.7 90.5 Original Forwarding Institution ID

6.68.7.1 Attribute

ans11, 11-digit numbers with fixed length

6.68.7.2 Description

This subfield contains the forwarding institution ID of the original transaction, namely the field 33 of the original request message, without the length value. Right justified and padded with 0 to the left.

6.68.8 Reject Code

10905＝invalid characters

6.69 Field 95 Replacement Amounts

6.69.1 Attribute

an42, 42-digit numbers with fixed length

6.69.2 Description

This field is used in the partial approval condition.

In a fund collection transaction of a RMB card, it is filled by the issuer and the value is the actual approved amount. The currency is RMB.

6.69.3 Usage

The content of this field is as follows:

Table 99 Usage of Field 95

Content	Data Type	Usage
Actual transaction amount	n12	Filled in by the issuer and the value is the actual approved amount.
Actual settlement amount	n12	Fill up with 0.
Actual transaction fee amount	X+8	Fill up with 0.

Actual settlement fee amount	X+8	Fill up with 0.
Note: Fill up with 0 when the data does not exist. This field contains the actual amount of the fund collection transaction or the actual transaction amount of the pre-authorization completion transaction.		

6.69.4 Reject Code

10955＝invalid characters

6.70 Field 96 Message Security Code

6.70.1 Attribute

64-bit binary number

6.70.2 Description

New single-length key defined by CUP and the Participant

6.70.3 Usage

It is used in the transaction in which CUP system initiatively resets the key or CUP system resets the key upon the Participant's request. After CUP system generates the data key, it stores the newly produced key which is encrypted by the Member Master Key (MMK) of the Participant into this field, and sends it to the Participant. When the new key is of double or triple length or even longer length (16 bytes or 24 bytes or longer), the new key is stored in field 48 (referring to Usage 10 of the field 48), and this field is filled with binary 0.

The new key is generated by the HSM of CUP system. After the Participant receives the new key sent by CUP system, the key is used after the decryption by the HSM.

The new key sent by CUP system is of 8-byte length.

6.70.4 Reject Code

N/A

6.71 Field 97 Amount, Net Settlement

6.71.1 Attribute

X+n16, 1-digit symbol + 16-digit numbers with fixed length

6.71.2 Description

Net settlement amount excluding the service fee

6.71.3 Usage

The symbol of "C" represents the credit; "D" represents the debit.

If this field is less than 16 digits, right justified and padding 0 to the left.

This field is only used in reconciliation messages.

In a reconciliation message, this field indicates the net settlement amount excluding the service fee during the reconciliation period when the Participant acts as the acquirer or issuer. For the detailed usage, please refer to the *Appendix E Explanation on Clearing and Reconciliation* in the *Part VI Annex*.

6.71.4 Reject Code

10975＝invalid characters

6.72 Field 99 Settlement Institution Identification Code

6.72.1 Attribute

n..11 (LLVAR), 2-byte length value ＋settlement institution identification code of maximum 11 bytes

6.72.2 Description

The code of the settlement and reconciliation institution

6.72.3 Usage

Please refer to the *Appendix A Code Definitions* in the *Part VI Annex* for details. This field is only used in reconciliation and fund settlement messages.

6.67.4 Reject Code

10993＝invalid characters in length field

10994＝length value exceeds 11

6.73 Field 100 Receiving Institution Identification Code

6.73.1 Attribute

n..11 (LLVAR), 2-type length value ＋the receiving institution identification code of maximum 11 bytes

6.73.2 Description

The code of the message receiving institution in the message

6.73.3 Usage

Please refer to the *Appendix A Code Definitions* in the *Part VI Annex* for details.

This field appears in all transaction messages. The value is filled by CUP who designates the receiver of the message. In the whole transaction process the value is unchanged.

In the transfer transaction, CUP system set this field as the identification code of the transfer-out side.

In the transfer-out and transfer-in transaction, this field is used to store the identification code of the receiver.

6.73.4 Reject Code

11003＝invalid characters in length field

11004＝length value exceeds 11

6.74 Field 102 Account Identification 1

6.74.1 Attribute

ans..28 (LLVAR), 2-byte length value＋the account identification number of maximum 28 bytes

6.74.2 Description

Account (card) identification number of transfer-out account

6.74.3 Usage

In CUP card transactions, this field only appears in transfer transaction messages and is used for the identification number of the transfer-out account.

For international remittance transaction, if acquirer (remitter) remits fund from account or card instead of cash, this field should be filled with the account or card number.

6.74.4 Reject Code

11023 ＝invalid characters in length field

11024 ＝length value exceeds 28

11025 ＝invalid characters

6.75 Field 103 Account Identification 2

6.75.1 Attribute

ans..28 (LLVAR), 2-byte length value+ the account identification number of the maximum 28 bytes (alphabets, numbers and special characters)

6.75.2 Description

The identification number of the transfer-in account

6.75.3 Usage

This field only appears in transfer transaction messages and is used for the identification number of the transfer-in account.

6.75.4 Reject Code

11033 ＝invalid characters in length field

11034 ＝length value exceeds 28

11035 ＝invalid characters

6.76 Field 104 Transaction Description

6.76.1 Attribute

Ans … 100 (LLLVAR), 3 bytes length value + the transaction description of maximum 100 bytes (letters, numbers and special characters)

6.76.2 Description

Description of transaction

6.76.3 Usage

Currently it is only used in the foreign card accepting of the international cards and is filled in by the issuer for the special description of the transaction. For example, the issuer can fill in the additive features that are convenient for the day-end settlement and generation of the report as well as disposal of the message.

6.76.4 Reject Code

11043 ＝invalid characters in length field

11044 ＝length value exceeds 101

11045 ＝invalid characters

6.77 Field 121 CUP System Reserved

6.77.1 Attribute

ans...100 (LLLVAR), 3-byte length value + CUP reserved data of maximum 100 bytes (numbers, letters and special character).

6.77.2 Description

This field is used by CUP to store transaction data.

It is the identifier that CUP system distributes to the approved transaction and it is composed of the following subfields:

Table 100 Composition of Field 121

Position	1st byte	2nd byte	3rd byte	4th –43rd byte	44th – 81st bytes
Subfield	121.1	121.2	121.3	121.4	121.5

6.77.3 121.1 Response/Response Reason Code

6.77.3.1 Attribute

ans1

6.77.3.2 Description

It indicates how CUP or the issuer processes the request message. The detailed information is as follows:

Table 101 Value Range of Field 121.1

Code	Description
1	CUP system detects the time-out of the request, and the stand-in authorization is enabled.
2	Transaction amount is lower than the restriction of the issuer, and the stand-in authorization is enabled.
3	The issuer's system is blocked, and the stand-in authorization is enabled.
4	The issuer's system is unable to process the transaction, and the stand-in authorization is enabled. (malfunction in the communication line connecting to the issuer)
5	The issuer processes and responds.
6	Issuer signs off
7	CUP notifies the issuer to sign off
A	It indicates that the reject response is caused by the transfer-out side, which identifies the reject reason combined with the response code.
B	It indicates the reject reason is caused by the transfer-in side, which identifies the reject reason combined with the response code.

6.77.3.3 Usage

This field is filled by CUP.

When CUP returns the response to the acquirer, it uses this field to notify the acquirer of the processing status of the transacting request. It can contain the value of 5, 6, 7, A and B.

When CUP sends the information of the stand-in authorization to the issuer, it adds this field to notify the reason of the stand-in authorization to the issuer. It can contain the value of 1, 2, 3 and 4.

6.77.4 121.2 Single/Dual or Dual/Single Message Conversion Code

6.77.4.1 Attribute

ans1

6.77.4.2 Description

Identifier of the single/dual conversion. The value of this subfield is as follows:

Table 102 Value of Field 121.2

Code	Description
1	CUP does not process it.
2	Single-message transaction submitted by the acquirer is converted into dual-message by CUP system
3	Dual-message transaction submitted by the acquirer is converted into single-message by CUP system

6.77.4.3 Usage

This field is filled in by CUP system. It is added when CUP sends the transaction request to the issuer, indicating whether the single/dual message conversion is conducted.

6.77.5 121.3 Card Type

6.77.5.1 Attribute

ans1

6.77.5.2 Description

This field indicated the type of card involved in the transaction. Specific value is as follows:

Table 103 Value of Field 121.3

Number	Card Type
9	CUP card, Credit card
C	CUP card, debit card
A	CUP card, quasi credit card
1	Non CUP card, credit card
4	Non CUP card, Debit card
2	Non CUP card, quasi credit card

6.77.5.3 Usage

This field is filled in by CUP.

6.77.6 121.4 CUP System Reserved

6.77.6.1 Attribute

ans40

6.77.6.2 Description

This subfield is filled in by CUP to match the original transaction.

6.77.6.3 Usage

The receiver of the message should keep the value of this field and return this field unchanged in the response message.

6.77.7 121.5 Transfer In/Out Institution Identification Code/Service Fee

6.77.7.1 Attribute

ans38

6.77.7.2 Description

This sub-field contains the identification code of the transfer-in and transfer-out side or the service fee of the CUP card international transaction.

This Specification applies this sub-field in many usages, each of which has the specific format. In the all usages, the following general format is used: <field identifier>< data>

<field identifier>

It indicates the type of the subsequent data, and the length is 2 bytes.

Table 104 Field Identifier of Field 121.5

Format symbol	Usage	Description
ID	Usage 1	the identification code of the transfer-in and transfer-out side
FD	Usage 2	Service Fee

<data >

The format of the data is determined by the field identifier and the maximum length is 36 bytes.

6.77.7.3 Usage 1: Transfer In/Out Institution Identification Code (Participants inside Mainland of China Use Only)

It is only used in the message of the transfer transaction. Other messages do not contain this field.

a) Usage identifier—2 bytes, containing the value of "ID".

b) 1-8 position contains the transfer-out institution identification code, 9-16 position contains the transfer-in institution identification code, and other positions should be filled in by spaces.

6.77.7.4 Usage 2: Service Fee

This usage is only used for CUP card international transactions and should be filled up upon the request of the issuer. It notifies the issuer of the detailed information about deducting the service fee from the cardholder's account apart from the transaction amount. The issuer can use the combination of the value of this field and

the cardholder billing amount (field 6) as the basis to deduct the account of the cardholder, or calculate it by itself.

a) Usage identifier—2 bytes, containing the value of "FD".

B) The residual bytes should be filled in with the detailed service fee information:

Table 105 Field 121.5—Service Fee Information

Service Fee Item	Data type	Currency in the request message which CUP sends to the issuer	Currency in the response message which CUP returns to the acquirer
Transaction service fee the cardholder is to pay	x+n8	Currency of cardholder billing account	Settlement currency of acquirer
Currency conversion fee the cardholder is to pay	x+n8	Currency of cardholder billing account	\
Fee the issuer charges the cardholder (optional)	x+n8	Currency of cardholder billing account	\
Settlement amount of service fee	x+n8	Settlement currency of issuer	Settlement currency of acquirer

The transaction service fee the cardholder should pay: the cardholder should pay for the service fee for the use of the ATM. In the request message to the issuer, the currency is the cardholder billing currency. The first position is the identifier, "C" representing crediting cardholder account, "D" representing debiting cardholder account. In the response message that is returned to the acquirer, the currency is the settlement currency of the acquirer.

The currency conversion fee the cardholder should pay: the cardholder should pay this fee for the use of the currency conversion service. The currency is the cardholder billing currency. The first position is the identifier, "C" representing crediting cardholder account, "D" representing debiting cardholder account. If this fee is not required, then 0 shall be filled in the request message sent to the issuer. In the response message returned to the acquirer, this position is filled in 0.

The fee the issuer charges the cardholder (optional): the issuer authorizes CUP to calculate the additional fee that the cardholder should pay for the currency conversion service. The currency is the cardholder billing currency. The first position is the identifier, "C" representing crediting cardholder account, "D" representing debiting cardholder account. If the issuer does not authorize CUP to calculate the fee, then it should fill in with 0 in the position. In the response message returned to the acquirer, this position is filled in with 0.

The settlement amount of the service fee: the settlement service fee between CUP and the Participant. The first position is the identifier, "C" representing crediting

members account, “D” representing debiting members account. The currency in the request message from CUP to the issuer is the settlement currency of the issuer; the currency in the response message that CUP returns to the acquirer is the settlement currency of the acquirer. For the calculation method, please refer to the relevant business rules.

6.77.8 Reject Code

11213＝invalid characters in length field

11214＝length value exceeds 100

11215＝invalid characters

6.78 Field 122 Acquirer Institution Reserved

6.78.1 Attribute

ans...100 (LLLVAR), 3-byte length value + the maximum data of 100 bytes (letters, numbers and special characters) information the acquirer reserves

6.78.2 Description

It is used by the acquirer to reserve transaction data. It is optional for the acquirer to fill in this field.

Table 106 Composition of Field 122

Position	1-6 bytes	7 - bytes
Subfield	122.1	122.2

6.78.3 122.1 Merchant Discount Rate

6.78.3.1 Attribute

ans6, 6-digit letters, numbers or special character with fixed length

6.78.3.2 Description

This subfield is filled in by the acquirer, containing the 6 digits of the merchant discount rate, and the value is the actual merchant discount rate *10000.

6.78.4 122.2 Acquirer Information

6.78.4.1 Attribute

ans..94, the acquirer’s information of maximum 94 bytes (letters, numbers and special characters)

6.78.4.2 Description

This subfield is filled in by the acquirer to match the original transaction. When CUP receives the message, it keeps the value of this field in CUP system and returns the original value to the acquirer in the response message.

6.78.5 Usage

This field is used by the acquirer to indicate the merchant discount rate and to match the original transaction.

6.78.6 Reject Code

11223＝invalid characters in length field

11224＝length value exceeds 100

11225＝invalid characters

6.79 Field 123 Issuer Institution Reserved

6.79.1 Attribute

ans...100 (LLLVAR), 3-byte length value + the maximum data of 100 bytes (letters, numbers and special characters) the issuer reserves

6.79.2 Description

It is used to reserve the transaction data by the issuer. This field is optional.

6.79.3 Usage

This field is filled in by the issuer to match the original transaction. When CUP receives the message, it stores the value of this field in CUP system and returns the original value to the issuer in the reversal message.

6.79.4 Reject Code

11233＝invalid characters in length field

11234＝length value exceeds 100

11235＝invalid characters

6.80 Field 128 Message Authentication Code

6.80.1 Attribute

64-bit binary number

6.80.2 Description

Authentication code (MAC) used to authenticate the accurate message source

6.80.3 Usage

The message authentication code is the MAC data calculated with some sensitive field data in the message following the calculation method designated in Field 53.

Before the transaction message is sent out by the sender, MAC should be generated by the sender. After the receiver receives the message, it will re-calculate the MAC

value to authenticate whether the message is changed during the transmission process.

Generating and authenticating the MAC is completed by the HSM. For the detailed calculation method and usage of the field, please refer to *Specification on Data Secure Transmission Control*.

6.80.4 Reject Code

N/A

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7 Explanations on Message Format

7.1 Explanation

7.1.1 Symbol Definition

Table 107 Symbol Definition

Symbol		Definition
Sender	AC	Acquirer
	SW	CUP System
	IS	Issuer
	SD	Message Sender
	RC	Message Receiver
	TS	Transaction Initiator
	TR	Transaction Receiver
	OB	Transfer Transaction Acceptor
	CB	Transfer-in side or Transfer-out side
Symbol		Definition
Field Value Symbol	M	Mandatory. Field that must be filled in
	C	Conditional. Field that must be filled in certain condition
	C+	Conditional. Field to be added in certain condition
	C-	Conditional. Field to be deleted in certain condition
	M+	Mandatory. Field that must be added
	O	Optional. Field filled optionally by acquirer and issuer
	→	Field forwarded
		Field whose value must remains same as the value in corresponding field of previous message
	00	Field whose user-defined data element must be filled with 0
		Field that must be deleted

7.1.2 Explanation on Message Format

7.1.2.1 Explanation on Format of Request Message

Table 108 Explanation on Format of Request Message

XXXmessage						
Field	Data Element	Date Type	Sender and Value			
			AC	SW	IS	SW
	Message Type Identifier	n4	0200		0210	
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→

XXXmessage						
Field	Data Element	Date Type	Sender and Value			
			AC	SW	IS	SW
35	Track_2_data	z..37(LLVAR)	M	→		
37	Retrivl_ref_num	an12	M	→	M	→
38	Authorization Identification Response	an6			M	→
39	Resp_code	an2			M	→
41	Card_accptr_termnl_id	ans8	O	→	C0	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)			C	→
Note: Note 1: Field 32: Acq_inst_id_code, this field must be filled by acquirer, and forwarded by CUP, and issuer must return unchanged in the response message Note 2: Field 33: Fwd_inst_id_code, this field is kept unchanged during the transaction and indicates the sender of the message. Note 3: Field 35: Track_2_data, this field only appears in the request message. Note 4: Field 41: the acquirer decides whether to fill in this field. Once this field appears in the initial message, it should appear in the subsequent messages.						

7.1.2.2 Explanation on Format of Advice Message

Table 109 Explanation on Format of Advice Message (sent out by the acquirer)

xxxx advice (sent out by the acquirer)				
Field	Data Element	Data Type	Sender and Value	
			AC	SW
	Message Type ID	n4	0420	0430
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
35	Track_2_data	z..37(LLVAR)	C1	
36	Track_3_data	z..104(LLLVAR)	C2	
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M

Table 110 Explanation on Format of Advice Message (sent out by CUP)

xxxx advice (sent out by CUP)				
Field	Date Element	Date Type	Sender and Value	
			SW	IS

	Message Type ID	n4	0420	0430
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
35	Track_2_data	z..37(LLVAR)	C1	
36	Track_3_data	z..104(LLLVAR)	C2	
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
Note: Advice transaction is direct response transaction, so message format is described in two parts: one part describes the change in message field AC→SW, the other part describes the change in message field SW→IS. The way to indicate change in each message field remains the same as that used for request message, but it should be noticed that: The first column of the two parts of advice format (the AC column that is sent out by acquirer and SW column that is sent out by CUP) both indicates the relationship with the original transaction.				

7.1.3 Explanation on Conditional Data Element in Message Field

Note: If the message field meets one of the following conditions, then this field will appear; otherwise, whether the field appears or not will be determined by the two sides of the transaction.

- C0: When the last node sent this field, this field exists, and its value remains the same as the value at last node.
- C1: When Field 22 (Point of Service Entry Mode Code) indicates magnetic stripe card input, and there is track 2 data on magnetic stripe, this field exists.
- C2: When Field 22 (Point of Service Entry Mode Code) indicates magnetic stripe card input, and there is track 3 data on magnetic stripe, the field exists
- C3: When Field 39 (Response Code) indicates that the transaction request is authorized, the field exists.
- C4: This field exists if it exists in the last related original transaction.
- C5: This field exists when the acquirer requests CUP to provide.
- C6: This field exists when there is an operational need.
- C7: the field exists when requested by the terminal and the last bit of Field 22 is 1.
- C8: When Field 52（PIN_DATA）exists, this field exists.
- C9: Processed according to the *Security Specifications on Bankcard Interoperability*.
- C10: When the transaction relates to a card account, this field exists.
- C11: This field exists when it exists in the message sent to CUP by other switch center.
- C12: This field exists when the balance of the card is not sufficient and issuer partially authorizes the transaction.

- C13: If the message is dispute processing message of transfer transaction, this field exists.
- C14: When transaction currency (Field 49) is different from settlement currency (Field 50), this field exists.
- C15: When transaction currency (Field 49) is different from cardholder billing currency (Field 51), this field exists.
- C16: When last node sent the field, the field exists, and current node will change the value of the field according to the need of the related operation, when last node did not send the field, current node will give value to the field according to the need of the related operation.
- C17: If the original transaction is not found, this field does not exist; if the original transaction is found, and this field is contained in original transaction, this field will exist.
- C19: If the length of key is double length or triple length (16 byte or 24 byte) or even longer, this field exists.
- C20: If CUP card is acquired outside Mainland of China, this field exists, and if it is acquired inside Mainland of China, this field does not exist.
- C21: This field exists when acquirer uses *Technical Specifications on Bankcard Interoperability V2.0.*
- C24: When the acquirer (remitter) remits fund from account or bank card instead of cash, this field must exist to fill the account or bank card number, otherwise, this field does not exist.
- C50: This field exists if the interface equipment sequence number cannot be implicitly ascertained by the terminal identifier.
- C51: This field exists if the terminal can obtain card serial number, otherwise, this field does not exist.
- C53: This field exists if the transaction is initiated by the terminal, and the transaction is authorized by the issuer but rejected by the card.
- C54: If the issuer requests CUP to verify ARQC, this field exists.
- C55: This field exists when the issuer script exists in the response message of original transaction.
- C56: When using offline PIN, this field does not exist; when using online PIN, this field exists.
- C60: This field exists when CUP Secure certification requires.
- C0+: If original request message from sender contains this field, this field should be added to response message.
- C0-: If this field is sent by last node, this field should be deleted, and will not be passed to the next node.

7.1.4 Abbreviation of Field Name

Table 111 Abbreviation of Field Name

Field Serial Number	Field Name	Abbreviation of Field Name
2	Primary Account Number (PAN)	Primary_acct_num

3	Processing Code	Processing_code
4	Amount, Transaction	Amt_trans
5	Amount, Settlement	Amt_settlmt
6	Amount, Cardholder Billing	Amt_cdhldr_bil
7	Transmission Date and Time	Transmsn_date_time
9	Conversion Rate, Settlement	Conv_rate_settlmt
10	Conversion Rate, Cardholder Billing	Conv_rate_cdhldr_bil
11	System Trace Audit Number	Sys_trace_audit_num
12	Time, Local Transaction	Time_local_trans
13	Date, Local Transaction	Date_local_trans
14	Date, Expiration	Date_expr
15	Date, Settlement	Date_settlmt
16	Date, Conversion	Date_conv
18	Merchant's Type	Mchnt_type
19	Acquiring Institution Country Code	Acq_inst_cntry_code
20	PAN Extended, Country Code	Pan_extnd_cntry_code
22	Point of Service Entry Mode Code	Pos_entry_mode_code
23	Card Sequence Number	Card_seq_id
25	Point of Service Condition Code	Pos_cond_code
26	Point of Service Pin Capture Code	Pos_pin_captr_code
28	Amount, Transaction Fee	Amt_trans_fee
29	Amount, Settlement Fee	Amt_settlmt_fee
31	Amount, Settlement Processing Fee	Amt_settlmt_proces_fee
32	Acquiring Institution Identification Code	Acq_inst_id_code
33	Forwarding Institution Identification Code	Fwd_inst_id_code
34	PAN Extended	Pan_extnd
35	Track 2 data	Track_2_data
36	Track 3 Data	Track_3_data
37	Retrieval Reference Number	Retrivl_ref_num
38	Authorization Identification Response	Authr_id_resp
39	Response Code	Resp_code
41	Card Acceptor Terminal Identification	Card_accptr_termnl_id
42	Card Acceptor Identification Code	Card_accptr_id
43	Card Acceptor Name/Location	Card_accptr_name_loc
44	Additional Response Data	Addtnl_resp_code
45	Track 1 data	Track_1_data
48	Additional Data-Private	Addtnl_data_private
49	Currency Code, Transaction	Currcy_code_trans
50	Currency Code, Settlement	Currcy_code_settlmt
51	Currency Code, Cardholder Billing	Currcy_code_cdhldr_bil
52	PIN Data	Pin_data

53	Security Related Control Information	Sec_relatd_ctrl_info
54	Additional Amounts	Addtnl_amt
55	IC Card Data	ICC_Data
	Application Cryptogram	app_crypto
	Cryptogram Information Data	crypto_info_data
	Issuer Application Data	issr_app_data
	Unpredictable Number	unpredic_num
	Application Transaction Counter	app_trans_counter
	Terminal Verification Result	termnl_veri_resl
	Transaction Date	trans_date
	Transaction Type	trans_type
	Transaction Amount or Amount Authorized	trans_amt
	Transaction Currency Code	trans_currcy_code
	Application Interchange Profile	app_inter_profl
	Terminal Country Code	termnl_cntry_code
	Amount Other	amt_other
	Terminal Capabilities	termnl_capbs
	Cardholder Verification Result	card_ver_resl
	Terminal Type	termnl_type
	Interface Device Serial Number	ifd_serial_num
	Dedicated File Name	DF_name
	Terminal Application Version Number	term_ap_ver_num
	Transaction Sequence Counter	trans_seq_count
	Issuer Authentication Data	iss_auth_data
	Issuer Script Template 1	iss_scrpt1
	Issuer Script Template 2	iss_scrpt 2
	Issuer Script Results	iss_scrpt_resl
57	Additional Data Private	addtnl_data
58	Transaction Data of IC Card Based on PBOC E-wallet/Bankbook Standard	Ic_pboc_data_resvd
59	Detailed Inquiry Data	Detail_inqrng
60	Self-defined Field	Reserved
60.1	Message Reason Code	Msg_rsn_code
60.2	Additional Point Of Service Information	Addtnl_pos_info
61	Cardholder Authentication Information	Ch_auth_info
62	Switch Center Data	Switching_data
63	Finacial Network Data	Finacl_net_data
66	Settlement Code	Settlmt_code
70	Network Management Information Code	Netwk_mgmt_info_code
73	Date Action	Date_action
74	Credit, Number	Credits_num

75	Credit, Reversal Number	Credits_revsal_num
76	Debit, Number	Debits_num
77	Debit, Reversal Number	Debits_reversal_num
78	Transfer Number	Transfer_num
79	Transfer, Reversal Number	Transfer_revsal_num
80	Balance Inquiry Number	Inqury_num
81	Authorization Number	Authr_num
82	Credit, Service Fee Amount	Credits_proces_fee_amt
84	Debit, Service Fee Amount	Debits_proces_fee_amt
86	Credit, Transaction Amount	Credits_amt
87	Credit, Reversal Amount	Credits_revsal_amt
88	Debit, Transaction Amount	Debits_amt
89	Debit, Reversal Amount	Debits_revsal_amt
90	Original Data Elements	Orig_data_elemts
95	Replacement Amounts	Replacement_amts
96	Message Security Code	Msg_security_code
97	Amount, Net Settlement	Amt_net_settlmt
99	Settlement Institution Identification Code	Settlmt_inst_id_code
100	Receiving Institution Identification Code	Rcvg_inst_id_code
101	File Name	File_name
102	Account Identification 1	Acct_id1
103	Account Identification 2	Acct_id2
104	Transaction Description	Trans_descrpt
121	CUP System Reserved	National_sw_resved
122	Acquiring Institution Reserved	Acq_inst_resvd
123	Issuing Institution Reserved	Issr_inst_resvd
128	Message Authentication Code	Msg_authn_code

7.1.5 Basic Requirements on Message Fields of Transaction

The transaction type is identified by message type, transaction processing code (Field 3), merchant's type (Field 18), point of service condition code (Field 25) and transaction initiation channel (60.2.5). Each type of transaction has particular requirement to the value of these message fields. Please refer to *Appendix B Table of Transaction Type Identification* of the *Part VI Annex* for details.

7.2 Message Definition (Participants in Mainland of China Use Only)

Switch business mainly includes single message, dual message, the conversion between single and dual message and batch fund collection/ fund payment.

7.2.1 Definition of Single Message

The following message types are single messages:

- Balance inquiry
- Pre-authorization, pre-authorization cancellation, pre-authorization completion, pre-authorization completion cancellation
- Additional pre-authorization
- Purchase, purchase cancellation
- Refund
- Cash withdrawal
- Deposit, deposit cancellation, deposit confirmation (Participants inside Mainland of China Use Only)
- Fund collection (Participants inside Mainland of China Use Only)
- Fund payment, fund payment cancellation (Participants inside Mainland of China Use Only)
- Transfer, transfer-in, transfer-out, transfer-in confirmation; (Participants inside Mainland of China Use Only)
- Reversal
- Fee collection/fund disbursement (Participants inside Mainland of China Use Only)
- (Offline) pre-authorization completion advice, settlement advice
- Setup/withdraw clientage (Participants inside Mainland of China Use Only)

7.2.1.1 Balance Inquiry (Participants in Mainland of China Use Only)

This transaction is used to inquire the book balance or available balance of the bankcard.

This transaction does not support reversal.

If CUP system cannot forward the balance inquiry request to the issuer, it will decline this request.

If CUP system cannot forward the response to the acquirer, it will discard this response.

If the acquirer fails to receive the response from CUP system, it will decline the transaction.

Table 112 Balance Inquiry Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0200		0210	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	30X000	→	M	→
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→

Position	Data Element	Data Type	AC	SW	IS	SW
14	Date_expr	n4(YYMM)	O	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
18	Mchnt_type	n4	M	→	M	→
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	00/02	→	M	→
26	Pos_pin_captr_code	n2	C8	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z…104(LLLVAR)	C2	→		
37	Retrivl_ref_num	An12	M	→	M	→
39	Resp_code	An2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
48	Addtnl_data_private	ans...512(LLLVAR)	O	→		
49	Currcy_code_trans	an3	O	→	C0	→
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	C16		
54	Addtnl_amt	an...040(LLLVAR)			C3	→
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C16
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4 “0000”	0000	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200(LLLVAR)	C6	C16	C16	→
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	→
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0-		C0+
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0-
128	Msg_authn_code	b64	C9	C9	C9	C9

7.2.1.2 Pre-authorization (Participants in Mainland of China Use Only)

Pre-authorization is used by the acquirer to obtain the transaction approval from the issuer. The acquirer will estimate the purchase amount as the pre-authorization amount and send it to the issuer. If the issuer approves the transaction, it will generate an authorization code and send the response to the acquirer.

Pre-authorization only controls the available balance of the cardholder account. The pre-authorization completion transaction will be included in the fund settlement. An approved pre-authorization transaction is only valid in a limited time frame.

This transaction is not included in the daily settlement and supports reversal advice.

Table 113 Pre-authorization Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0100		0110	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	03X000	→	M	→
4	Amt_trans	n12	M	→	M	→
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
14	Date_expr	n4(YYMM)	O	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
18	Mchnt_type	n4	M	→	M	→
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	06	→	M	→
26	Pos_pin_captr_code	n2	C8	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR)	C2	→		
37	Retrivl_ref_num	an12	M	→	M	→
38	Authr_id_resp	an6			C3	→
39	Resp_code	an2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)			O	C0-
48	Addtnl_data_private	ans...512(LLLVAR)	O	→		
49	Currcy_code_trans	an3	M	→	M	→
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	C16		
54	Addtnl_amt	an...040(LLLVAR)			O	→
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C16
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4 “0000”	0000	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200(LLLVAR)	C6	C16	C16	→
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	→
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0 -		C0 +

Position	Data Element	Data Type	AC	SW	IS	SW
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0 -
128	Msg_authn_code	b64	C9	C9	C9	C9

7.2.1.3 Additional Pre-authorization (Participants in Mainland of China Use Only)

The acquirer may initialize an additional pre-authorization online, and reversal of online additional pre-authorization is supported. After completion of an additional pre-authorization, the acquirer can only conduct settlement or completion for the pre-authorization including the additional pre-authorization. Message format is as follows:

Table 114 Additional Pre-authorization Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0100		0110	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	03X000	→	M	→
4	Amt_trans	n12	M	→	M	→
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
14	Date_expr	n4(YYMM)	O	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
18	Mchnt_type	n4	M	→	M	→
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	60	→	M	→
26	Pos_pin_captr_code	n2	C8	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR)	C2	→		
37	Retrivl_ref_num	an12	M	→	M	→
38	Authr_id_resp	an6	M		C3	→
39	Resp_code	an2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)			O	C0-
48	Addtnl_data_private	ans...512(LLLVAR)	O	→		

Position	Data Element	Data Type	AC	SW	IS	SW
49	Currcy_code_trans	an3	M	→	M	→
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	C16		
54	Addtnl_amt	an...040(LLLVAR)			O	→
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C21
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	N4	0000	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans...200(LLLVAR)	C6	C16	C16	→
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	→
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0-		C0+
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0-
128	Msg_authn_code	B64	C9	C9	C9	C9
Note a: For an additional pre-authorization transaction, this field should be the authorization code of the original authorization transaction.						

7.2.1.4 Pre-authorization Cancellation / Pre-authorization Cancellation (Manual) (Participants in Mainland of China Use Only)

For a successful POS pre-authorization transaction, the pre-authorization cancellation transaction can be made before settlement to inform the issuer to cancel payment commitment.

The pre-authorization cancellation transaction should be a full-amount cancellation of the original pre-authorization or additional pre-authorization.

This transaction is not included in settlement and supports reversal.

The acquirer can initiate a manual cancellation of pre-authorization on the CDRS, and CUP will send the message of manual cancellation of pre-authorization to the issuer, which is basically consistent with general pre-authorization cancellation message, to inform the issuer to cancel payment commitment.

Pre-authorization cancellation (manual) and pre-authorization cancellation (online) have different values in field 60.2.5 (transaction channel): pre-authorization cancellation (manual) uses the value 12 in field 60.2.5, which means this transaction is initiated from the CDRS.

Table 115 Pre-authorization Cancellation Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0100		0110	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→

Position	Data Element	Data Type	AC	SW	IS	SW
3	Processing_code	n6	M	→	M	→
4	Amt_trans	n12	M	→	M	→
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
18	Mchnt_type	n4	M	→	M	→
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	06	→	M	→
26	Pos_pin_captr_code	n2	C8	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR)	C2	→		
37	Retrivl_ref_num	an12	M	→	M	→
38	Authr_id_resp	an6	M	→	O	→
39	Resp_code	an2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)			O	C0 -
48	Cddtnl_data_private	ans...512(LLLVAR)	O	→		
49	Currcy_code_trans	an3	M	→	M	→
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	C16		
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C16
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4 “0000”	0000	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200()LLLVAR)	C6	C16	C16	→
90	Orig_data_elemts	n42	O	→		
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	→
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0 -		C0 +
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0-
128	Msg_authn_code	b64	C9	C9	C9	C9

7.2.1.5 Pre-authorization Completion (Online) (Participants in Mainland of China Use Only)

For the approved pre-authorization transaction, the pre-authorization completion is used to complete the payment and settlement of the transaction.

This transaction is included in daily settlement and reconciliation and supports reversal advice.

Table 116 Pre-authorization Completion Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0200		0210	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	00X000	→	M	→
4	Amt_trans	n12	M	→	M	→
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
14	Date_expr	n4(YYMM)	O	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
18	Mchnt_type	n4	M	→	M	→
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	06	→	M	→
26	Pos_pin_captr_code	n2	C8	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR)	C2	→		
37	Retrivl_ref_num	an12	M	→	M	→
38	Authr_id_resp	an6	M	→	O	→
39	Resp_code	an2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)			O	C0-
48	Addtnl_data_private	ans...512(LLLVAR)	O	→		
49	Currcy_code_trans	an3	M	→	M	→
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	C16		
54	Addtnl_amt	an…040(LLLVAR)			O	→
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C16

Position	Data Element	Data Type	AC	SW	IS	SW
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4 "0000"	0000	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200(LLLVAR)	C6	C16	C16	→
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	→
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0-		C0+
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0-
128	Msg_authn_code	b64	C9	C9	C9	C9

7.2.1.6 Pre-authorization Completion (Offline) (Participants in Mainland of China Use Only)

For an approved pre-authorization transaction, the pre-authorization completion (offline) advice can be conducted for settlement.

If the sender of the advice does not receive the response, the response will be stored and forwarded.

Table 117 (Offline) Pre-authorization Completion Message (sent by the acquirer to CUP)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0220	0230
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	00X000	M
4	Amt_trans	n12	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
14	Date_expr	n4(YYMM)	0	
15	Date_settlmt	n4(MMDD)		M
16	Date_conv	n4(MMDD)		C14
18	Mchnt_type	n4	M	M
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	06	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
35	Track_2_data	z..37(LLVAR)	C1	
36	Track_3_data	z...104(LLLVAR)	C2	

Position	Data Element	Data Type	AC	SW
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	M	M
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
48	Addtnl_data_private	ans...512(LLLVAR)	0	
49	Currcy_code_trans	an3	M	M
57	Issr_addtnl_data	ans…100(LLLVAR)		0
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	0000	M
60.2	Addtnl_pos_info	ans10	M	M
100	Rcvg_inst_id_code	n..11(LLVAR)		M
121	National_sw_resved	ans...100(LLLVAR)		0
122	Acq_inst_resvd	ans...100(LLLVAR)	0	C0
128	Msg_authn_code	b64	C9	C9

The message format for the (offline) pre-authorization completion sent by CUP to the issuer is the same as that of the settlement advice in the following section.

7.2.1.7 Settlement Advice/Pre-authorization Completion (offline) (Participants in Mainland of China Use Only)

This message is used in the following instance:

1. When the acquirer uses the dual message system and the issuer uses the single message system, CUPS converts each settlement transaction submitted by the acquirer in the dual message settlement files to settlement advices and transmits them to the issuer.

2. When the acquirer sends pre-authorization completion (offline) transaction, CUP forwards the transaction.

Table 118 Settlement Advice Message / Pre-authorization completion (offline) (sent by CUP to the issuer)

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0220	0230
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	00X000	M
4	Amt_trans	n12	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
12	Ttime_local_trans	n6(hhmmss)	M	M

Position	Data Element	Data Type	SW	IS
13	Date_local_trans	n4(MMDD)	M	M
14	Date_expr	n4(YYMM)	C0	
15	Date_settlmt	n4(MMDD)	M	M
18	Mchnt_type	n4	M	M
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	06	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	M	M
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
44	Addtnl_resp_code	ans..25(LLVAR)		0
48	Addtnl_data_private	ans...512(LLLVAR)	O	C0
49	Currcy_code_trans	an3	M	M
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	0000	M
60.2	Addtnl_pos_info	ans10	M	M
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	0	C0
128	Msg_authn_code	b64	C9	C9

7.2.1.8 Pre-authorization Completion Cancellation (Participants in Mainland of China Use Only)

Pre-authorization completion cancellation must be a full amount cancellation of the original financial transaction.

Pre-authorization completion cancellation and the original transaction must be on the same settlement day.

After the pre-authorization completion cancellation, the original pre-authorization is still valid. The field 38 of the pre-authorization completion cancellation transaction message must be filled with the value of the field 38 of the pre-authorization completion transaction request.

The pre-authorization completion (offline) can not be cancelled.

This transaction is included in settlement and reconciliation and supports reversal advice.

Table 119 Pre-authorization Completion Cancellation Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0200		0210	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	20X000	→	M	→
4	Amt_trans	n12	M	→	M	→
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
18	Mchnt_type	n4	M	→	M	→
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	M	→	M	→
26	Pos_pin_captr_code	n2	C8	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR)	C2	→		
37	Retrivl_ref_num	an12	M	→	M	→
38	Authr_id_resp	an6	C4	→	O	→
39	Resp_code	an2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)		C4+	O	C0-
48	Addtnl_data_private	ans...512(LLLVAR)	O	→		
49	Currcy_code_trans	an3	M	→	M	→
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	C16		
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C16
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4	0000	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200(LLLVAR)	C6	C16	C16	→
90	Orig_data_elemts	n42	M	→		
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	C16
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0-		C0+
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0-
128	Msg_authn_code	b64	C9	C9	C9	C9

7.2.1.9 Purchase (Participants in Mainland of China Use Only)

The cardholder asks for approval from the issuer when purchasing goods or services.

This transaction is included in settlement and reconciliation and supports reversal advice.

Table 120 Purchase Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0200		0210	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	00X000	→	M	→
4	Amt_trans	n12	M	→	M	→
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
14	Date_expr	n4(YYMM)	O	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
18	Mchnt_type	n4	M	→	M	→
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	M	→	M	→
26	Pos_pin_captr_code	n2	C8	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR)	C2	→		
37	Retrivl_ref_num	An12	M	→	M	→
38	Authr_id_resp	An6			O	→
39	Resp_code	An2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)			O	C0-
48	Addtnl_data_private	ans...512(LLLVAR)	C22	→		
49	Currcy_code_trans	An3	M	→	M	→
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	→		
54	Addtnl_amt	An…400(LLLV			O	→

Position	Data Element	Data Type	AC	SW	IS	SW
		AR)				
57	Issr_addtnl_data	ans...100(LLLVAR)			C22	C16
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4 "0000"	0000	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200	C6	C16	C16	→
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	→
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0-		C0+
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0-
128	Msg_authn_code	b64	C9	C9	C9	C9

7.2.1.10 Purchase Cancellation (Participants in Mainland of China Use Only)

Purchase cancellation must be a full amount cancellation of the original financial transaction.

Purchase cancellation and the original transaction must be on the same settlement day.

This transaction is included in settlement and reconciliation and supports reversal advice.

Table 121 Purchase Cancellation Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0200		0210	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	20X000	→	M	→
4	Amt_trans	n12	M	→	M	→
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
18	Mchnt_type	n4	M	→	M	→
22	Pos_entry_mode_code	n3	M	→		

Position	Data Element	Data Type	AC	SW	IS	SW
25	Pos_cond_code	n2	M	→	M	→
26	Pos_pin_captr_code	n2	C8	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR)	C2	→		
37	Retrivl_ref_num	an12	M	→	M	→
38	Authr_id_resp	an6	C4	→	O	→
39	Resp_code	an2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)		C4+	O	C0-
48	Addtnl_data_private	ans...512(LLLVAR)	O	→		
49	Currcy_code_trans	an3	M	→	M	→
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	C16		
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C16
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4	0000	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200(LLLVAR)	C6	C16	C16	→
90	Orig_data_elemts	n42	M	→		
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	C16
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0-		C0+
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0-
128	Msg_authn_code	b64	C9	C9	C9	C9

7.2.1.11 (Online) Refund (Participants in Mainland of China Use Only)

For a settled purchase transaction, the refund advice can be used to return the purchase amount to the cardholder's account.

This transaction is included in settlement and reconciliation but does not support reversal advice.

Table 122 Refund Advice Message (sent by the acquirer)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0220	0230
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M

3	Processing_code	n6	20X000	M
4	Amt_trans	n12	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
15	Date_settlmt	n4(MMDD)		M+
18	Mchnt_type	n4	M	M
19	Acq_inst_cntry_code	n3	C20	C0
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	00	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
35	Track_2_data	z..37(LLVAR)	C1	
36	Track_3_data	z...104(LLLVAR)	C2	
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
48	Addtnl_data_private	ans...512(LLLVAR)	O	
49	Currcy_code_trans	an3	M	M
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	0000	M
60.2	Addtnl_pos_info	ans10	M	M
90	Orig_data_elemts	n42	M	
100	Rcvg_inst_id_code	n..11(LLVAR)		M
121	National_sw_resved	ans...100(LLLVAR)		O
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0
128	Msg_authn_code	b64	C9	C9

Table 123 Refund Advice Message (sent by CUP)

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0220	0230
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	20X000	M
4	Amt_trans	n12	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M

11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
15	Date_settlmt	n4(MMDD)	M	M
18	Mchnt_type	n4	M	M
19	Acq_inst_cntry_code	n3	C20	C0
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	00	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
35	Track_2_data	z..37(LLVAR)	C1	
36	Track_3_data	z...104(LLLVAR)	C2	
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
48	Addtnl_data_private	ans...512(LLLVAR)	C0	
49	Currcy_code_trans	an3	M	M
50	Currcy_code_settlmt	an3	C14	
51	Currcy_code_cdhldr_bil	an3	C15	
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	0000	M
60.2	Addtnl_pos_info	ans10	M	M
90	Orig_data_elemts	n42	M	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	O	C0
128	Msg_authn_code	b64	C9	C9

The refund advice message (sent from CUP) is also applied to the refund (manual) initiated by participant on CUP public service platform. What is different from the refund (online) is that, field 60.2.5 of refund (manual) should be 12.

7.2.1.12 Cash Withdrawal (Participants in Mainland of China Use Only)

Cash withdrawal transaction is used to request the issuer to confirm the cash withdrawal activity and the amount.

This transaction is involved in settlement and reconciliation and supports reversal advice.

Table 124 Cash Withdrawal Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0200		0210	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	01X000	→	M	→
4	Amt_trans	n12	M	→	M	→
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
14	Date_expr	n4(YYMM)	O	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
18	Mchnt_type	n4	M	→	M	→
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	M	→	M	→
26	Pos_pin_captr_code	n2	M	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR)	C2	→		
37	Retrivl_ref_num	an12	M	→	M	→
38	Authr_id_resp	an6			O	→
39	Resp_code	an2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)			O	C0-
48	Addtnl_data_private	ans...512(LLLVAR)	O	→		
49	Currcy_code_trans	an3	M	→	M	→
52	Pin_data	b64	M	→		
53	Sec_relatd_ctrl_info	n16	M	C16		
54	Addtnl_amt	an…040(LLLVAR)			O	→
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C16
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4 “0000”	0000	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200(LLLVAR)	C6	C16	C16	→
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	→
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0-		C0+

Position	Data Element	Data Type	AC	SW	IS	SW
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0-
128	Msg_authn_code	b64	C9	C9	C9	C9

7.2.1.13 Deposit (Participants in Mainland of China Use Only)

This transaction is not available for participants outside Mainland of China; therefore detail message definition is removed.

7.2.1.14 Deposit Confirmation (Participants in Mainland of China Use Only)

This transaction is not available for participants outside Mainland of China; therefore detail message definition is removed.

7.2.1.15 Deposit Cancellation (Participants in Mainland of China Use Only)

This transaction is not available for participants outside Mainland of China; therefore detail message definition is removed.

7.2.1.16 Fund Collection (Participants in Mainland of China Use Only)

This transaction is not available for participants outside Mainland of China; therefore detail message definition is removed.

7.2.1.17 Fund Payment (Participants in Mainland of China Use Only)

This transaction is not available for participants outside Mainland of China; therefore detail message definition is removed.

7.2.1.18 Fund Payment Cancellation (Participants in Mainland of China Use Only)

This transaction is not available for participants outside Mainland of China; therefore detail message definition is removed.

7.2.1.19 Transfer Transaction (Participants in Mainland of China Use Only)

This transaction is not available for participants outside Mainland of China; therefore detail message definition is removed.

7.2.1.20 Reversal (Participants in Mainland of China Use Only)

When the acquirer can not receive the response for the request message in the specified time frame, or CUP can not forward the response to acquirer, reversal should be initiated.

When the sender of reversal message can not receive reversal response, it should save and forward.

Reversal transaction and its original transaction must be in the same settlement date.

Reversal is applicable to the following transactions: cash withdrawal, pre-authorization, pre-authorization cancellation, pre-authorization completion, pre-authorization completion cancellation, purchase and purchase cancellation, Additional pre-authorization.

In the reversal message for pre-authorization, pre-authorization cancellation, pre-authorization completion and pre-authorization completion cancellation, field 38 should be the authorization identifier response for the original pre-authorization.

Table 125 Reversal Message (sent by the acquirer)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0420	0430
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
15	Date_settlmt	n4(MMDD)		M
16	Date_conv	n4(MMDD)		C4
18	Mchnt_type	n4	M	M
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	M	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
48	Addtnl_data_private	and…512(LLLVAR)	O	
49	Currcy_code_trans	an3	M	M
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	M	M
60.2	Addtnl_pos_info	ans10	M	M
90	Orig_data_elemts	n42	M	
100	Rcvg_inst_id_code	n..11(LLVAR)		M
121	National_sw_resved	ans...100(LLLVAR)		0

Position	Data Element	Data Type	AC	SW
122	Acq_inst_resvd	ans...100(LLLVAR)	0	C0
128	Msg_authn_code	b64	C9	C9

Table 126 Reveral Message (sent by CUP)

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0420	0430
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
15	Date_settlmt	n4(MMDD)	M	M
16	Date_conv	n4(MMDD)	C4	
18	Mchnt_type	n4	M	M
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	M	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
44	Addtnl_resp_code	ans..25(LLVAR)	C4	
49	Currcy_code_trans	an3	M	M
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	M	M
60.2	Addtnl_pos_info	ans10	M	M
90	Orig_data_elemts	n42	M	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	O	C0
123	Issr_inst_resvd	ans...100(LLLVAR)	C4	
128	Msg_authn_code	b64	C9	C9

7.2.1.21 Set up/Withdraw Clientage (Participants in Mainland of China Use Only)

This transaction is not available for participants outside Mainland of China, therefore detail message definition including table 132 is removed.

7.2.2 Definition of Dual Message

The following message types are dual messages:

- Balance inquiry
- Authorization, Authorization cancellation
- Additional authorization
- Reversal for authorization/authorization cancellation

7.2.2.1 Balance Inquiry (Participants in Mainland of China Use Only)

Message definition for balance inquiry in dual message is same as the definition in single message, except that, message type identifier is '0100/0110', field 25 of point of service condition code is '00'.

7.2.2.2 Authorization (Participants in Mainland of China Use Only)

Authorization transaction message is basically same with pre-authorization message in single message. It is only for supporting the purchase transaction when converting from single message to dual message. There is a bit difference with pre-authorization on field 25, 48 and 57. Please refer to *Appendix B Table of Transaction Type Identification* of the *Part VI Annex* for the value of key fields

Table 127 Authorization Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0100		0110	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	00X000	→	M	→
4	Amt_trans	n12	M	→	M	→
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
14	Date_expr	n4(YYMM)	O	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
18	Mchnt_type	n4	M	→	M	→
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	M	→	M	→
26	Pos_pin_captr_code	n2	C8	→		

Position	Data Element	Data Type	AC	SW	IS	SW
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR)	C2	→		
37	Retrivl_ref_num	an12	M	→	M	→
38	Authr_id_resp	an6			C3	→
39	Resp_code	an2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)			O	C0-
48	Addtnl_data_private	ans...512(LLLVAR)	O	C22		
49	Currcy_code_trans	an3	M	→	M	→
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	C16		
54	Addtnl_amt	an...040(LLLVAR)			O	→
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C16
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4 “0000”	0000	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200(LLLVAR)	C6	C16	C16	→
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	→
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0 -		C0 +
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0 -
128	Msg_authn_code	b64	C9	C9	C9	C9

7.2.2.3 Additional Authorization (Participants in Mainland of China Use Only)

Additional authorization transaction message is basically same with additional pre-authorization message in single message. The difference is that, value for field 3 is ‘00X000’. Please refer to *Appendix B Table of Transaction Type Identification* of the *Part VI Annex* for the value of key fields

7.2.2.4 Authorization Cancellation/Authorization Cancellation(manual) (Participants in Mainland of China Use Only)

The message is basically same with the pre-authorization cancellation/pre-authorization cancellation (manual) in single message. The difference is that value of field 25 is ‘00’. Please refer to *Appendix B Table of Transaction Type Identification* of the *Part VI Annex* for the value of key fields

7.2.2.5 Reversal for Auhtorization/Authorization Cancellation (Participants in Mainland of China Use Only)

The message is basically same with the reversal for pre-authorization /pre-authorization cancellation in single message. The difference is that, for authorization reversal, value of field 3 is '00X000' and value of field 25 is '00', for authorization cancellation reversal, value of field 25 is '00'. Please refer to *Appendix B Table of Transaction Type Identification* of the *Part VI Annex* for the value of key fields

7.3 Message Definition for Stand-in Authorization (Participants in Mainland of China Use Only)

Stand-in service is not available for participants outside Mainland of China, therefore detail message definition including table 134-141 is removed.

7.4 Message Definition for Dispute Resolution (Participants in Mainland of China Use Only)

Participant can initiate the dispute resolution request through the CUP Dispute Resolution Platform (CRDS). Upon the request of the sender or receiver of the dispute resolution, CUP sends the dispute resolution advice message to the sender or receiver. The sender or receiver of the dispute resolution can be the acquirer or issuer of the original transaction.

Note:

- For participants in Mainland of China, dispute resolution advice message is optional. If participant does not need the advice message, CUP will not send.

Since the Participant cannot submit the dispute resolution in the form of online message, the dispute resolution advice message is only applicable to:

——CUP system sends dispute request confirmation advice to the acquirer/dispute sender

——CUP system sends dispute resolution advice to the issuer/dispute receiver

7.4.1 Credit Adjustment Advice, Debit Adjustment Advice, Representment Advice, Chargeback Advice, Second Chargeback Advice, Manual Refund Advice (Participants in Mainland of China Use Only)

Table 128 Credit Adjustment Advice/Debit Adjustment Advice/Representment Advice/Chargeback Advice/Second Chargeback Advice/Manual Refund Advice Message (sent to the acquirer)

Position	Data Element	Data Type	SW	AC
	Message Type ID	n4	0422	0432
	Bitmap	b128	M	M

Position	Data Element	Data Type	SW	AC
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
13	Date_local_trans	n4(MMDD)	M	M
15	Date_settlmt	n4(MMDD)	M	M
18	Mchnt_type	n4	M	M
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	M	M
28	Amt_trans_fee	X+n8	C4	C0
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
49	Currcy_code_trans	an3	M	M
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	M	M
60.2	Addtnl_pos_info	ans10	M	M
90	Orig_data_elemts	n42	M	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	O	C0
128	Msg_authn_code	b64	C9	C9

Table 129 Credit Adjustment Advice/ Debit Adjustment Advice/Representment Advice/Chargeback Advice/Second Chargeback Advice/Manual Refund Advice Message (sent to the issuer)

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0220	0230
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
13	Date_local_trans	n4(MMDD)	M	M

Position	Data Element	Data Type	SW	IS
15	Date_settlmt	n4(MMDD)	M	M
18	Mchnt_type	n4	M	M
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	M	M
28	Amt_trans_fee	X+n8	C4	C0
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
49	Currcy_code_trans	an3	M	M
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	M	M
60.2	Addtnl_pos_info	n10	M	M
90	Orig_data_elemts	n42	M	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	O	C0
128	Msg_authn_code	b64	C9	C9

7.4.2 Exceptional Processing Advice (Participants in Mainland of China Use Only)

Table 130 Exceptional Processing Advice (sent to the initiator)

Position	Data Element	Data Type	SW	SD
	Message Type ID	n4	0422	0432
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
13	Date_local_trans	n4(MMDD)	C17	C0
15	Date_settlmt	n4(MMDD)	M	M
18	Mchnt_type	n4	C17	C0
22	Pos_entry_mode_code	n3	C17	
25	Pos_cond_code	n2	M	M
28	Amt_trans_fee	X+n8	C17	C0
32	Acq_inst_id_code	n..11(LLVAR)	M	M

Position	Data Element	Data Type	SW	SD
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	C17	C0
38	Authr_id_resp	an6	C17	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	C17	C0
42	Card_accptr_id	ans15	C17	C0
43	Card_accptr_name_loc	ans40	C17	
49	Currcy_code_trans	an3	M	M
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	M	M
60.2	Addtnl_pos_info	ans10	M	M
90	Orig_data_elemts	n42	C17	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	O	C0
128	Msg_authn_code	b64	C9	C9

Table 131 Exceptional Processing Advice (sent to the receiver)

Position	Data Element	Data Type	SW	RC
	Message-Type-IDentifier	n4	0220	0230
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
13	Date_local_trans	n4(MMDD)	C17	C0
15	Date_settlmt	n4(MMDD)	M	M
18	Mchnt_type	n4	C17	C0
22	Pos_entry_mode_code	n3	C17	
25	Pos_cond_code	n2	M	M
28	Amt_trans_fee	X+n8	C17	C0
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	C17	C0
38	Authr_id_resp	an6	C17	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	C17	C0
42	Card_accptr_id	ans15	C17	C0
43	Card_accptr_name_loc	ans40	C17	
49	Currcy_code_trans	an3	C17	C0

Position	Data Element	Data Type	SW	RC
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	M	M
60.2	Addtnl_pos_info	n10	M	M
90	Orig_data_elemts	n42	C17	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	O	C0
128	Msg_authn_code	b64	C9	C9

7.4.3 Fee Collection/Fund Disbursement Advice (Participants in Mainland of China Use Only)

When CUP initiates a fee collection/fund disbursement transaction on the CDRS, CUP system will send the fee collection/fund disbursement advice message upon the request of the Participant. If the Participant chooses the advice method of online message, CUP system will send the fee collection/fund disbursement advice message.

The fee collection/fund disbursement advice can only be sent by CUP system.

Table 132 Fee Collection/Fund Disbursement Advice

Position	Data Element	Data Type	SW	RC
	Message Type ID	n4	0220	0230
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	C10	C0
3	Processing_code	n6	19X000/ 29X000	M
4	Amt_trans	n12	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
15	Date_settlmt	n4(MMDD)	M	M
25	Pos_cond_code	n2	00	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	M	M
39	Resp_code	an2		M
48	Additional_data	ans…512(LLLVAR)	M	
49	Currcy_code_trans	an3	M	M
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	M	M
60.2	Addtnl_pos_info	ans10	M	M
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	0	C0

122	Acq_inst_resvd	ans...100(LLLVAR)	0	C0
123	Issr_inst_resvd	ans...100(LLLVAR)	0	C0
128	Msg_authn_code	b64	C9	C9

7.5 Message Definition for Clearing and Settlement, and Day-end Batch Processing (Participants in Mainland of China Use Only)

It is not available for participants outside Mainland of China, therefore contents are removed.

7.6 Definition of Security Control Message

The following transaction messages are required for security management:

—Key reset request

—Key reset

7.6.1 Key Reset Request

A Participant sends the key reset request to CUP system, and CUP will send a response upon receiving the request. At the same time, CUP system starts key updating module, creates a new key for the Participant, and sends the new key to the Participant in the key reset message.

If CUP cannot send the key reset response or key reset to the Participant, CUP will discard the message.

Table 137 Key Reset Request

Position	Data Element	Data Type	SD	SW
	Message Type ID	n4	0820	0830
	Bitmap	b128	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
39	Resp_code	an2		M
53	Sec_relatd_ctrl_info	n16	M	M
70	Netwk_mgmt_info_code	n3	M	M
Note: Message type code: advice 0820/response 0830 Field 53: security control information. The type of reset key installed in this message: 1: PIK 2: MAK Field 70: network management information code. 101 illustrates that the Participant requests to reset the key.				

7.6.2 Key Reset Transaction

CUP sends the key reset to the Participant, and the Participant sends a response to CUP upon receiving the key reset. When malfunction occurs to the Participant's system and CUP cannot receive the response, CUP system will resend the key reset. If the sending times exceed the limit, it will be processed manually.

Table 138 Key Reset Message

Position	Data Element	Data Type	SW	RC
	Message Type ID	n4	0800	0810
	Bitmap	b128	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
39	Resp_code	an2		M
48	Addtnl_data_private	ans..512(LLLVAR)	C19	
53	Sec_relatd_ctrl_info	n16	M	M
70	Netwk_mgmt_info_code	n3	101	M
96	Msg_security_code	b64	M	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
128	Msg_authn_code	b64	C9	C9

Note:

Message type code: request 0800/response0810

Field 53: security control information. The type of reset key filled in this message by CUP system:

1: PIK

2: MAK

Field 70: network management information code. 101 indicates CUP system resets the key

Field 48: message security code, new key distributed by CUP system

Field 96: message security code, new key distributed by CUP system

Field 100: the identification code for the receiving institution. The identification code for the Participant that requests to reset the key

7.7 Definition of Management Message

7.7.1 Network Management Message

The management messages include sign on, sign off and echo test.

Network management transaction is the network management operational information between CUP and Participants, that is:

a) Set up and change the network status of Participants

b) Echo test in the network application layer

c) Participants will send response after receiving network management transaction.

Network management transactions are divided in two categories: CUP-generated advice and Participant-generated advice.

Table 139 Network Management Message (sent by CUP)

Position	Data Element	Data Type	SW	RC
	Message Type ID	n4	0820	0830
	Bitmap	b128	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
39	Resp_code	an2		M
70	Netwk_mgmt_info_code	n3	M	M
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
Note: Message type code: request 0820/response0830 Field70: network management information code 001: indicates Participant signing on/CUP enables Participant 002: indicates Participant signing off/CUP disables Participant 301: indicates the echo test				

Table 140 Network Management Message (sent by Participant)

Position	Data Element	Data Type	SD	SW
	Message Type ID	n4	0820	0830
	Bitmap	b128	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
39	Resp_code	an2		M
70	Netwk_mgmt_info_code	n3	M	M
Note: Message type code: request 0820/response0830 Field70: network management information code 001: indicates Participant signing on/CUP enables Participant 002: indicates Participant signing off/CUP disables Participant 301: indicates the echo test				

7.7.2 Text Message (Participants inside Mainland of China Use Only)

The text information transmission is used for short message transmission between Participants, and the response does not include the text information. If the text information is needed in response, another text information transmission should be initiated.

A Participant (the sender) sends the text information transmission transaction to another Participant (the receiver), and the receiver sends a response to the sender. If the sender does not receive the response, the transaction will not be resent. When the receiver is unable to send the response, it discards the response.

Table 141 Text Message

Position	Data Element	Data Type	SD	RC
	Message Type ID	N4	0620	0630
	Bitmap	B64	M	M
7	Rransmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
39	Resp_code	an2		M
48	Addtnl_data_private	ans...512(LLLVAR)	M	
70	Netwk_mgmt_info_code	n3	M	M
100	Rcvg_inst_id_code	n.. 11(LLVAR)	M	M
Note: Message type code: request 0620/responsion 0630 Field 70: network management information code 800: indicates the text information sent by Participant to CUP 801: indicates the text information sent by CUP to Participant				

7.8 Definition of Risk Control Message (Participants in Mainland of China Use Only)

7.8.1 Suspicious Card Number Advice Message

It is sent by CUP to inform the issuer to monitor the suspicious card.

Table 142 Suspicious Card Number Advice Message

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0620	0630
	Bitmap	b128	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
39	Resp_code	an2		M
48	Addtnl_data_private	ans...512(LLLVAR)	M	
70	Netwk_mgmt_info_code	n3	802	M
100	Rcv_inst_id_code	n..11(LLVAR)	M	M

7.8.2 Suspicious Card Transaction Advice Message

It is sent by the issuer to inform CUP of the transaction information of the suspicious card.

Table 143 Suspicious Card Transaction Advice Message

Position	Data Element	Data Type	IS	SW
	Message Type ID	n4	0620	0630
	Bitmap	b128	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
39	Resp_code	an2		M
48	Addtnl_data_private	ans...512(LLLVAR)	M	
70	Netwk_mgmt_info_code	n3	803	M

7.9 Message Definition for International Transaction (Participants outside Mainland of China Use Only)

All participants outside Mainland of China are connected to CUP Frond End System (FEPS) instead of CUP central system which is connected with participants in Mainland of China, therefore, a bit difference exists between the message for participant outside and inside Mainland of China.

Since currency conversion is required in international transactions, the usage of several special fields is specified as follows:

Field 5 (settlement amount), Field 9 (settlement conversion rate), Field 16 (conversion date) and Field 50 (settlement currency code) are related to settlement. If the transaction currency is different from the settlement currency, these fields will appear in financial messages and stand-in authorization advice messages. Authorization and inquiry transactions are not included in settlement, so the corresponding messages do not include these fields.

In the financial transactions involved in settlement, Field 5 (settlement amount), Field 9 (settlement conversion rate), Field 16 (conversion date), Field 50 (settlement currency code) are filled up by CUP.

Field 6 (cardholder billing amount), Field 10 (conversion rate, cardholder billing), and Field 51 (currency code, cardholder billing) specify the amount that should be held or debited from the cardholder's account. If the transaction currency is different from the cardholder billing currency, these fields will appear in authorization transactions, financial transactions and their stand-in authorization advice messages.

In the financial transactions involved in settlement, Field 6 (cardholder billing amount), Field 10 (conversion rate, cardholder billing), Field 51 (currency code, cardholder billing) are filled up by CUP.

7.9.1 Message Definition for Switch Business

7.9.1.1 Single Message

The following message types are single messages available for participants outside Mainland of China:

- Balance inquiry
- Pre-authorization, pre-authorization cancellation, pre-authorization completion, pre-authorization completion cancellation
- Additional pre-authorization
- Purchase, purchase cancellation
- Refund
- Cash withdrawal
- Reversal
- (Offline) pre-authorization completion advice, settlement advice

7.9.1.1.1 Balance Inquiry

This transaction is used to inquire the book balance or available balance of the bankcard.

This transaction does not support reversal.

If CUP system cannot forward the balance inquiry request to the issuer, it will decline this request.

If CUP system cannot forward the response to the acquirer, it will discard this response.

If the acquirer fails to receive the response from CUP system, it will decline the transaction.

Table 144 International Transactions — Balance Inquiry Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0200		0210	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	M	→	M	→
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
14	Date_expr	n4(YYMM)	O	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
18	Mchnt_type	n4	M	→	M	→
19	Acq_inst_cntry_code	n3	C20	→	C0	→

Position	Data Element	Data Type	AC	SW	IS	SW
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	M	→	M	→
26	Pos_pin_captr_code	n2	C8	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z…104(LLLVAR)	C2	→		
37	Retrivl_ref_num	An12	M	→	M	→
39	Resp_code	An2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
48	Addtnl_data_private	ans...512(LLLVAR)	O	→		
49	Currcy_code_trans	an3	O	→	C0	→
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	C16		
54	Addtnl_amt	an...040(LLLVAR)			C3	→
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C16
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4 “0000”	M	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200(LLLVAR)	C6	C16	C16	→
62	Switching_data	ans...200(LLLVAR)				
63	Finacl_net_data	ans...200(LLLVAR)				
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	C16
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0-		C0+
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0-
128	Msg_authn_code	b64	C9	C9	C9	C9

7.9.1.1.2 Pre-authorization

Pre-authorization is used by the acquirer to obtain the transaction approval from the issuer. The acquirer will estimate the purchase amount as the pre-authorization amount and send it to the issuer. If the issuer approves the transaction, it will generate an authorization code and send the response to the acquirer.

Pre-authorization only controls the available balance of the cardholder account. The pre-authorization completion transaction will be included in the fund settlement. An approved pre-authorization transaction is only valid in a limited time frame.

This transaction is not included in the daily settlement and supports reversal advice.

Table 145 International Transactions — Pre-authorization Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0100		0110	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	M	→	M	→
4	Amt_trans	n12	M	→	M	→
6	Amt_cdhldr_bil	n12		C15+		C15+
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
10	Conv_rate_cdhldr_bil	n8		C15+		C15+
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
14	Date_expr	n4(YYMM)	O	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
18	Mchnt_type	n4	M	→	M	→
19	Acq_inst_cntry_code	n3	C20	→	C0	→
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	M	→	M	→
26	Pos_pin_captr_code	n2	C8	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR)	C2	→		
37	Retrivl_ref_num	an12	M	→	M	→
38	Authr_id_resp	an6			C3	→
39	Resp_code	an2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)			O	C0-
48	Addtnl_data_private	ans...512(LLLVAR)	O	→		
49	Currcy_code_trans	an3	M	→	M	→
51	Currcy_code_cdhldr_bil	an3		C15+		C15+
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	C16		
54	Addtnl_amt	an...040(LLLVAR)			O	→

Position	Data Element	Data Type	AC	SW	IS	SW
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C16
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4 "0000"	M	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200(LLLVAR)	C6	C16	C16	→
62	Switching_data	ans...200(LLLVAR)				
63	Finacl_net_data	ans...200(LLLVAR)				
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	C16
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0 -		C0 +
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0 -
128	Msg_authn_code	b64	C9	C9	C9	C9
Note: For international transaction of CUP card issued by issuer in Mainland of China, if the authorization transaction is initiated with fixed amount, the transaction will be converted to purchase transaction and send to the issuer. In this instance, issuer may not return field 38, the acquirer outside Mainland of China should support and process this transaction.						

7.9.1.1.3 Pre-authorization Cancellation / Pre-authorization Cancellation (Manual)

For a successful POS pre-authorization transaction, the pre-authorization cancellation transaction can be made before settlement to inform the issuer to cancel payment commitment.

The pre-authorization cancellation transaction should be a full-amount cancellation of the original pre-authorization or additional pre-authorization.

This transaction is not included in settlement and supports reversal.

The acquirer can initiate a manual cancellation of pre-authorization on the CDRS, and CUP will send the message of manual cancellation of pre-authorization to the issuer, which is basically consistent with general pre-authorization cancellation message, to inform the issuer to cancel payment commitment.

Pre-authorization cancellation (manual) and pre-authorization cancellation (online) have different values in field 60.2.5 (transaction channel): pre-authorization cancellation (manual) uses the value 12 in field 60.2.5, which means this transaction is initiated from the CDRS.

Table 146 International Transactions — Pre-authorization Cancellation Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0100		0110	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→

Position	Data Element	Data Type	AC	SW	IS	SW
3	Processing_code	n6	M	→	M	→
4	Amt_trans	n12	M	→	M	→
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
18	Mchnt_type	n4	M	→	M	→
19	Acq_inst_cntry_code	n3	C4	→	C0	→
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	M	→	M	→
26	Pos_pin_captr_code	n2	C8	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR)	C2	→		
37	Retrivl_ref_num	an12	M	→	M	→
38	Authr_id_resp	an6	M	→	O	→
39	Resp_code	an2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)			O	C0 -
48	Cddtnl_data_private	ans...512(LLLVAR)	M	→		
49	Currcy_code_trans	an3	M	→	M	→
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	C16		
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C16
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4 “0000”	M	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200()LLLVAR)	C6	C16	C16	→
62	Switching_data	ans...200(LLLVAR)				
63	Finacl_net_data	ans...200(LLLVAR)				
90	Orig_data_elemts	n42	M	→		
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	C16
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0 -		C0 +
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0-

Position	Data Element	Data Type	AC	SW	IS	SW
128	Msg_authn_code	b64	C9	C9	C9	C9

7.9.1.1.4 Pre-authorization Completion (Online)

For the approved pre-authorization transaction, the pre-authorization completion is used to complete the payment and settlement of the transaction.

This transaction is included in daily settlement and reconciliation and supports reversal advice.

Table 147 International Transactions — Pre-authorization Completion Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0200		0210	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	M	→	M	→
4	Amt_trans	n12	M	→	M	→
5	Amt_settlmt	n12		C14+		C14+
6	Amt_cdhldr_bil	n12		C15+		C15+
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
9	Conv_rate_settlmt	n8		C14+		C14+
10	Conv_rate_cdhldr_bil	n8		C15+		C15+
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
14	Date_expr	n4(YYMM)	O	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
16	Date_conv	n4(MMDD)		C14+		C14+
18	Mchnt_type	n4	M	→	M	→
19	Acq_inst_cntry_code	n3	C4	→	C0	→
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	M	→	M	→
26	Pos_pin_captr_code	n2	C8	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR)	C2	→		
37	Retrivl_ref_num	an12	M	→	M	→
38	Authr_id_resp	an6	M	→	O	→
39	Resp_code	an2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→

Position	Data Element	Data Type	AC	SW	IS	SW
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)			O	C0-
48	Addtnl_data_private	ans...512(LLLVAR)	O	→		
49	Currcy_code_trans	an3	M	→	M	→
50	Currcy_code_settlmt	an3		C14+		C14+
51	Currcy_code_cdhldr_bil	an3		C15+		C15+
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	C16		
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C16
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4 “0000”	M	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200(LLLVAR)	C6	C16	C16	→
62	Switching_data	ans...200(LLLVAR)				
63	Finacl_net_data	ans...200(LLLVAR)				
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	C16
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0-		C0+
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0-
128	Msg_authn_code	b64	C9	C9	C9	C9

7.9.1.1.5 Cash Withdrawal

Cash withdrawal transaction is used to request the issuer to confirm the cash withdrawal activity and the amount.

This transaction is involved in settlement and reconciliation and supports reversal advice.

Table 148 International Transactions — Cash Withdrawal Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0200		0210	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	M	→	M	→
4	Amt_trans	n12	M	→	M	→
5	Amt_settlmt	n12		C14+		C14+
6	Amt_cdhldr_bil	n12		C15+		C15+
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
9	Conv_rate_settlmt	n8		C14+		C14+
10	Conv_rate_cdhldr_bil	n8		C15+		C15+

Position	Data Element	Data Type	AC	SW	IS	SW
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
14	Date_expr	n4(YYMM)	O	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
16	Date_conv	n4(MMDD)		C14+		C14+
18	Mchnt_type	n4	M	→	M	→
19	Acq_inst_cntry_code	n3	C20	→	C0	→
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	M	→	M	→
26	Pos_pin_captr_code	n2	M	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR)	C2	→		
37	Retrivl_ref_num	an12	M	→	M	→
38	Authr_id_resp	an6			O	→
39	Resp_code	an2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)			O	C0-
48	Addtnl_data_private	ans...512(LLLVAR)	O	→		
49	Currcy_code_trans	an3	M	→	M	→
50	Currcy_code_settlmt	an3		C14+		C14+
51	Currcy_code_cdhldr_bil	an3		C15+		C15+
52	Pin_data	b64	M	→		
53	Sec_relatd_ctrl_info	n16	M	C16		
54	Addtnl_amt	an…040(LLLVAR)			O	→
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C16
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4 “0000”	M	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200(LLLVAR)	C6	C16	C16	→
62	Switching_data	ans...200(LLLVAR)				
63	Finacl_net_data	ans...200(LLLVAR)				
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	C16
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0-		C0+
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0-

Position	Data Element	Data Type	AC	SW	IS	SW
128	Msg_authn_code	b64	C9	C9	C9	C9

7.9.1.1.6 Purchase

The cardholder asks for approval from the issuer when purchasing goods or services.

This transaction is included in settlement and reconciliation and supports reversal advice.

Table 149 International Transactions — Purchase Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0200		0210	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	M	→	M	→
4	Amt_trans	n12	M	→	M	→
5	Amt_settlmt	n12		C14+		C14+
6	Amt_cdhldr_bil	n12		C15+		C15+
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
9	Conv_rate_settlmt	n8		C14+		C14+
10	Conv_rate_cdhldr_bil	n8		C15+		C15+
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
14	Date_expr	n4(YYMM)	O	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
16	Date_conv	n4(MMDD)		C14+		C14+
18	Mchnt_type	n4	M	→	M	→
19	Acq_inst_cntry_code	n3	C20	→	C0	→
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	M	→	M	→
26	Pos_pin_captr_code	n2	C8	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR	C2	→		

Position	Data Element	Data Type	AC	SW	IS	SW
		)				
37	Retrivl_ref_num	An12	M	→	M	→
38	Authr_id_resp	An6			O	→
39	Resp_code	An2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)			O	C0-
48	Addtnl_data_private	ans...512(LLLVAR)	O	→		
49	Currcy_code_trans	An3	M	→	M	→
50	Currcy_code_settlmt	An3		C14+		C14+
51	Currcy_code_cdhldr_bil	An3		C15+		C15+
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	C16		
54	Addtnl_amt	An…400(LLLVAR)			O	→
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C16
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4 “0000”	M	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200	C6	C16	C16	→
62	Switching_data	ans...200(LLLVAR)				
63	Finacl_net_data	ans...200(LLLVAR)				
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	C16
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0-		C0+
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0-
128	Msg_authn_code	b64	C9	C9	C9	C9

7.9.1.1.7 Financial Transaction Cancellation

Financial transaction cancellation includes pre-authorization completion cancellation and purchase cancellation.

Financial transaction cancellation must be a full amount cancellation of the original financial transaction.

Financial transaction cancellation and the original transaction must be on the same settlement day.

After the pre-authorization completion cancellation, the original pre-authorization is still valid. The field 38 of the pre-authorization completion cancellation transaction message must be filled with the value of the field 38 of the pre-authorization completion transaction request.

This transaction is included in settlement and reconciliation and supports reversal advice.

Table 150 International Transactions — Financial Transaction Cancellation Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0200		0210	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	M	→	M	→
4	Amt_trans	n12	M	→	M	→
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
18	Mchnt_type	n4	M	→	M	→
19	Acq_inst_cntry_code	n3	C4	→	C0	→
22	Pos_entry_mode_code	n3	M	→		
25	Pos_cond_code	n2	M	→	M	→
26	Pos_pin_captr_code	n2	C8	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR)	C2	→		
37	Retrivl_ref_num	an12	M	→	M	→
38	Authr_id_resp	an6	C4	→	O	→
39	Resp_code	an2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→

Position	Data Element	Data Type	AC	SW	IS	SW
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)		C4+	O	C4-
48	Addtnl_data_private	ans...512(LLLVAR)	O	→		
49	Currcy_code_trans	an3	M	→	M	→
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	C16		
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C16
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4	M	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans..200(LLLVAR)	C6	C16	C16	→
62	Switching_data	ans...200(LLLVAR)				
63	Finacl_net_data	ans...200(LLLVAR)				
90	Orig_data_elemts	n42	M	→		
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	C16
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0-		C0+
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0-
128	Msg_authn_code	b64	C9	C9	C9	C9

7.9.1.1.8 Reversal

Reversal is applicable to the following transactions: cash withdrawal, pre-authorization, pre-authorization cancellation, pre-authorization completion, pre-authorization completion cancellation, purchase and purchase cancellation.

Table 151 International Transactions — Reversal Message (sent by the acquirer)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0420	0430
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
5	Amt_settlmt	n12		C4
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
9	Conv_rate_settlmt	n8		C4
11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
15	Date_settlmt	n4(MMDD)		M

Position	Data Element	Data Type	AC	SW
16	Date_conv	n4(MMDD)		C4
18	Mchnt_type	n4	M	M
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	M	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
49	Currcy_code_trans	an3	M	M
50	Currcy_code_settlmt	an3		C4
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	M	M
60.2	Addtnl_pos_info	ans10	M	M
90	Orig_data_elemts	n42	M	
100	Rcvg_inst_id_code	n..11(LLVAR)		M
121	National_sw_resved	ans...100(LLLVAR)		0
122	Acq_inst_resvd	ans...100(LLLVAR)	0	C0
128	Msg_authn_code	b64	C9	C9

Table 152 International Transactions — Reveral Message (sent by CUP)

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0420	0430
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
5	Amt_settlmt	n12	C4	
6	Amt_cdhldr_bil	n12	C4	
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
9	Conv_rate_settlmt	n8	C4	
10	Conv_rate_cdhldr_bil	n8	C4	
11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
15	Date_settlmt	n4(MMDD)	M	M
16	Date_conv	n4(MMDD)	C4	

Position	Data Element	Data Type	SW	IS
18	Mchnt_type	n4	M	M
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	M	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
44	Addtnl_resp_code	ans..25(LLVAR)	C4	
49	Currcy_code_trans	an3	M	M
50	Currcy_code_settlmt	an3	C4	
51	Currcy_code_cdhldr_bil	an3	C4	
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	M	M
60.2	Addtnl_pos_info	ans10	M	M
90	Orig_data_elemts	n42	M	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	O	C0
123	Issr_inst_resvd	ans...100(LLLVAR)	C4	
128	Msg_authn_code	b64	C9	C9

7.9.1.1.9 Pre-authorization Completion (Offline)

For an approved pre-authorization transaction, the pre-authorization completion (offline) advice can be conducted for settlement. The issuer cannot decline the pre-authorization completion (offline) transaction.

If the sender of the advice does not receive the response, the response will be stored and forwarded.

Table 153 International Transactions — (Offline) Pre-authorization Completion Message (sent by the acquirer to CUP)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0220	0230
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	00X000	M
4	Amt_trans	n12	M	M
5	Amt_settlmt	n12		C14

Position	Data Element	Data Type	AC	SW
6	Amt_cdhldr_bil	n12		C15
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
9	Conv_rate_settlmt	n8		C14
10	Conv_rate_cdhldr_bil	n8		C15
11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
14	Date_expr	n4(YYMM)	0	
15	Date_settlmt	n4(MMDD)		M
16	Date_conv	n4(MMDD)		C14
18	Mchnt_type	n4	M	M
19	Acq_inst_cntry_code	n3	C4	C0
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	06	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
35	Track_2_data	z..37(LLVAR)	C1	
36	Track_3_data	z...104(LLLVAR)	C2	
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	M	M
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
48	Addtnl_data_private	ans...512(LLLVAR)	0	
49	Currcy_code_trans	an3	M	M
50	Currcy_code_settlmt	an3		C14
51	Currcy_code_cdhldr_bil	an3		C15
57	Issr_addtnl_data	ans…100(LLLVAR)		0
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	0000	0000
60.2	Addtnl_pos_info	ans10	M	M
100	Rcvg_inst_id_code	n..11(LLVAR)		M
121	National_sw_resved	ans...100(LLLVAR)		0
122	Acq_inst_resvd	ans...100(LLLVAR)	0	C0
128	Msg_authn_code	b64	C9	C9

The message format for the (offline) pre-authorization completion sent by CUP to the issuer is the same as that of the settlement advice in the following section.

7.9.1.1.10 Settlement Advice

When the acquirer uses the dual message system and the issuer uses the single message system, CUPS converts each settlement transaction submitted by the acquirer in the dual message settlement files to settlement advices and transmits them to the issuer.

Table 154 International Transactions — Settlement Advice Message (sent by CUP to the issuer)

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0220	0230
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	00X000	M
4	Amt_trans	n12	M	M
5	Amt_settlmt	n12	C14	
6	Amt_cdhldr_bil	n12	C15	
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
9	Conv_rate_settlmt	n8	C14	
10	Conv_rate_cdhldr_bil	n8	C15	
11	Sys_trace_audit_num	n6	M	M
12	Ttime_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
14	Date_expr	n4(YYMM)	C0	
15	Date_settlmt	n4(MMDD)	M	M
16	Date_conv	n4(MMDD)	C14	
18	Mchnt_type	n4	M	M
19	Acq_inst_cntry_code	n3	C4	C0
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	06	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	M	M
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
44	Addtnl_resp_code	ans..25(LLVAR)		0
48	Addtnl_data_private	ans...512(LLLVAR)	C0	
49	Currcy_code_trans	an3	M	M
50	Currcy_code_settlmt	an3	C14	

Position	Data Element	Data Type	SW	IS
51	Currcy_code_cdhldr_bil	an3	C15	
57	Issr_addtnl_data	ans...100(LLLVAR)		0
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	0000	0000
60.2	Addtnl_pos_info	ans10	M	M
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	0	C0
128	Msg_authn_code	b64	C9	C9

7.9.1.1.11 (Online) Refund

For a settled international purchase transaction, the refund advice can be used to return the purchase amount to the cardholder's account.

This transaction is included in settlement and reconciliation but does not support reversal advice.

Table 155 International Transactions — Refund Advice Message (sent by the acquirer)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0220	0230
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	20X000	M
4	Amt_trans	n12	M	M
5	Amt_settlmt	n12		C14
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
9	Conv_rate_settlmt	n8		C14
11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
15	Date_settlmt	n4(MMDD)		M
16	Date_conv	n4(MMDD)		C14
18	Mchnt_type	n4	M	M
19	Acq_inst_cntry_code	n3	C20	C0
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	00	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
35	Track_2_data	z..37(LLVAR)	C1	
36	Track_3_data	z...104(LLLVAR)	C2	
37	Retrivl_ref_num	an12	M	M

38	Authr_id_resp	an6	C4	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
48	Addtnl_data_private	ans...512(LLLVAR)	0	
49	Currcy_code_trans	an3	M	M
50	Currcy_code_settlmt	an3		C14
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	0000	M
60.2	Addtnl_pos_info	ans10	M	M
90	Orig_data_elemts	n42	M	
100	Rcvg_inst_id_code	n..11(LLVAR)		M
121	National_sw_resved	ans...100(LLLVAR)		0
122	Acq_inst_resvd	ans...100(LLLVAR)	0	C0
128	Msg_authn_code	b64	C9	C9

Table 156 International Transactions — Refund Advice Message (sent by CUP)

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0220	0230
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	20X000	M
4	Amt_trans	n12	M	M
5	Amt_settlmt	n12	C14	
6	Amt_cdhldr_bil	n12	C15	
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
9	Conv_rate_settlmt	n8	C14	
10	Conv_rate_cdhldr_bil	n8	C15	
11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
15	Date_settlmt	n4(MMDD)	M	M
16	Date_conv	n4(MMDD)	C14	
18	Mchnt_type	n4	M	M
19	Acq_inst_cntry_code	n3	C20	C0
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	00	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M

35	Track_2_data	z..37(LLVAR)	C1	
36	Track_3_data	z...104(LLLVAR)	C2	
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
48	Addtnl_data_private	ans...512(LLLVAR)	C0	
49	Currcy_code_trans	an3	M	M
50	Currcy_code_settlmt	an3	C14	
51	Currcy_code_cdhldr_bil	an3	C15	
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	0000	M
60.2	Addtnl_pos_info	ans10	M	M
90	Orig_data_elemts	n42	M	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	0	C0
128	Msg_authn_code	b64	C9	C9

7.9.1.1.12 Additional Pre-authorization

The acquirer may initialize an additional pre-authorization online, and reversal of online additional pre-authorization is supported. After completion of an additional pre-authorization, the acquirer may settle or complete only the pre-authorization of the additional pre-authorization. Message format is as follows:

Table 157 Additional Pre-authorization Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0100		0110	
	Bitmap	b128	M	M	M	M
2	Primary_acct_num	n..19(LLVAR)	M	→	M	→
3	Processing_code	n6	03X000	→	M	→
4	Amt_trans	n12	M	→	M	→
7	Transmsn_date_time	n10(MMDDhhmmss)	M	→	M	→
11	Sys_trace_audit_num	n6	M	→	M	→
12	Time_local_trans	n6(hhmmss)	M	→	M	→
13	Date_local_trans	n4(MMDD)	M	→	M	→
14	Date_expr	n4(YYMM)	O	→	M	→
15	Date_settlmt	n4(MMDD)		M+	M	→
18	Mchnt_type	n4	M	→	M	→
22	Pos_entry_mode_code	n3	M	→		

Position	Data Element	Data Type	AC	SW	IS	SW
25	Pos_cond_code	n2	06	→	M	→
26	Pos_pin_captr_code	n2	C8	→		
32	Acq_inst_id_code	n..11(LLVAR)	M	→	M	→
33	Fwd_inst_id_code	n..11(LLVAR)	M	→	M	→
35	Track_2_data	z..37(LLVAR)	C1	→		
36	Track_3_data	z...104(LLLVAR)	C2	→		
37	Retrivl_ref_num	an12	M	→	M	→
38	Authr_id_resp	an6	M		C3	→
39	Resp_code	an2			M	→
41	Card_accptr_termnl_id	ans8	M	→	M	→
42	Card_accptr_id	ans15	M	→	M	→
43	Card_accptr_name_loc	ans40	M	→		
44	Addtnl_resp_code	ans..25(LLVAR)			O	C0-
48	Addtnl_data_private	ans...512(LLLVAR)	O	→		
49	Currcy_code_trans	an3	M	→	M	→
52	Pin_data	b64	C7	→		
53	Sec_relatd_ctrl_info	n16	C8	→		
54	Addtnl_amt	an...040(LLLVAR)			O	→
57	Issr_addtnl_data	ans...100(LLLVAR)			O	C21
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	N4	0000	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans...200(LLLVAR)	C6	C16	C16	→
100	Rcvg_inst_id_code	n..11(LLVAR)		M+	M	→
121	National_sw_resved	ans...100(LLLVAR)		O	C0	→
122	Acq_inst_resvd	ans...100(LLLVAR)	O	C0-		C0+
123	Issr_inst_resvd	ans...100(LLLVAR)			O	C0-
128	Msg_authn_code	B64	C9	C9	C9	C9
Note a: For an additional pre-authorization transaction, this field should be the authorization code of the original authorization transaction.						

7.9.1.2 Dual Message

Messages in dual-message transactions for participants outside Mainland of China include:

—Authorization, Authorization Cancellation

—Authorization /Authorization Cancellation Reversal.

—Additional Authorization (Not Used at this stage)

7.9.1.2.1 Authorization

The message format is the same as that of the single message pre-authorization transaction. It can be used in purchase and cash advance transaction. Please refer to *Appendix B Table of Transaction Type Identification* of the *Part VI Annex* for the value of key fields.

Note: For international transaction of CUP card issued by issuer in Mainland of China, if the authorization transaction is initiated with fixed amount, the transaction will be converted to purchase transaction and send to the issuer. In this instance, issuer may not return field 38, the acquirer outside Mainland of China should support and process this transaction.

7.9.1.2.2 Authorization Cancellation

The message format is same as that of single-message pre-authorization cancellation transaction,

Note: When issuer's host is connected to CUP's host with single-message mode, field 38 is optional to the issuer. Therefore, it may not be present in response message sent by issuer.

7.9.1.2.3 Authorization /Authorization Cancellation Reversal

The message format is same as that of the authorization/authorization cancellation reversal in single message.

7.9.2 Sending Message of Stand-in Authorization Advice (Participants in Mainland of China Use Only)

For the international transaction of CUP card, the following stand-in authorization advices refer to the stand-in authorization advice message sent by CUP to issuers in Mainland of China after CUP performs the stand-in authorization for transactions such as purchase, cash withdrawal, pre-authorization, authorization, pre-authorization completion, (offline) pre-authorization completion, reversal and cancellation.

7.9.2.1 Message of Request/Termination of Request for Stand-in Authorization Advice

It is the same as the definition of the transaction message with the same message name for international transactions of CUP card issued by participant inside Mainland of China.

7.9.2.2 Stand-in Authorization Advice Message of Purchase and Cash Withdrawal Transaction

Table 158 International Transactions — Stand-in Authorization Advice Message of Purchase and Cash Withdrawal Transaction

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0220	0230

Position	Data Element	Data Type	SW	IS
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
5	Amt_settlmt	n12	C4	
6	Amt_cdhldr_bil	n12	C4	
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
9	Conv_rate_settlmt	n8	C4	
10	Conv_rate_cdhldr_bil	n8	C4	
11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
14	Date_expr	n4(YYMM)	C4	
15	Date_settlmt	n4(MMDD)	M	
16	Date_conv	n4(MMDD)	C4	
18	Mchnt_type	n4	M	
19	Acq_inst_cntry_code	n3	C4	
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	M	M
28	Amt_trans_fee	x+n8	C4	C0
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
35	Track_2_data	z..37(LLVAR)	C4	
36	Track_3_data	z...104(LLLVAR)	C4	
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	
39	Resp_code	an2	M	M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
48	Addtnl_data_private	ans...512(LLLVAR)	C4	
49	Currcy_code_trans	an3	M	M
50	Currcy_code_settlmt	an3	C4	
51	Currcy_code_cdhldr_bil	an3	C4	
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4 “0000”	M	M
60.2	Addtnl_pos_info	ans10	M	M
61	Ch_auth_info	ans..200(LLLVAR)	C4	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	M	M

Position	Data Element	Data Type	SW	IS
128	Msg_authn_code	b64	C9	C9

7.9.2.3 Stand-in Authorization Advice Message of (online) Pre-authorization Completion

Table 159 International Transactions — Stand-in Authorization Advice Message of (online) Pre-authorization Completion

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0220	0230
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
5	Amt_settlmt	n12	C4	
6	Amt_cdhldr_bil	n12	C4	
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
9	Conv_rate_settlmt	n8	C4	
10	Conv_rate_cdhldr_bil	n8	C4	
11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
14	Date_expr	n4(YYMM)	C4	
15	Date_settlmt	n4(MMDD)	M	
16	Date_conv	n4(MMDD)	C4	
18	Mchnt_type	n4	M	
19	Acq_inst_cntry_code	n3	C4	
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	M	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
35	Track_2_data	z..37(LLVAR)	C4	
36	Track_3_data	z…104(LLLVAR)	C4	
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	M	
39	Resp_code	an2	M	M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
48	Addtnl_data_private	ans...512(LLLVAR)	C4	
49	Currcy_code_trans	an3	M	M
50	Currcy_code_settlmt	an3	C4	

Position	Data Element	Data Type	SW	IS
51	Currcy_code_cdhldr_bil	an3	C4	
60	Reserved	ans…030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4 “0000”	M	M
60.2	Addtnl_pos_info	ans10	M	M
61	Ch_auth_info	ans..200(LLLVAR)	C4	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans…060(LLLVAR)	M	M
128	Msg_authn_code	b64	C9	C9

7.9.2.4 Stand-in Authorization Advice Message of Pre-authorization and Authorization Transaction

Table 160 International Transactions — Stand-in Authorization Advice Message of Pre-authorization and Authorization Transaction

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0120	0130
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
6	Amt_cdhldr_bil	n12	C4	
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
10	Conv_rate_cdhldr_bil	n8	C4	
11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
14	Date_expr	n4(YYMM)	C4	
15	Date_settlmt	n4(MMDD)	M	
18	Mchnt_type	n4	M	
19	Acq_inst_cntry_code	n3	C4	
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	M	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
35	Track_2_data	z..37(LLVAR)	C4	
36	Track_3_data	z...104(LLLVAR)	C4	
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	
39	Resp_code	an2	M	M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M

Position	Data Element	Data Type	SW	IS
43	Card_accptr_name_loc	ans40	M	
48	Addtnl_data_private	ans...512(LLLVAR)	C4	
49	Currcy_code_trans	an3	M	M
51	Currcy_code_cdhldr_bil	an3	C4	
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4 “0000”	M	M
60.2	Addtnl_pos_info	ans10	M	M
61	Ch_auth_info	ans..200(LLLVAR)	C4	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	M	M
128	Msg_authn_code	b64	C9	C9

7.9.2.5 Stand-in Authorization Advice Message of Reversal Transaction

It is applicable to the reversal transaction for stand-in authorizations.

Table 161 International Transactions — Stand-in Authorization Advice Message of Reversal Transaction

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0420	0430
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
5	Amt_settlmt	n12	C4	
6	Amt_cdhldr_bil	n12	C4	
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
9	Conv_rate_settlmt	n8	C4	
10	Conv_rate_cdhldr_bil	n8	C4	
11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
15	Date_settlmt	n4(MMDD)	M	M
16	Date_conv	n4(MMDD)	C4	
18	Mchnt_type	n4	M	M
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	M	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	

Position	Data Element	Data Type	SW	IS
39	Resp_code	an2	M	M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
49	Currcy_code_trans	an3	M	M
50	Currcy_code_settlmt	an3	C4	
51	Currcy_code_cdhldr_bil	an3	C4	
60	Reserved	Ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	M	M
60.2	Addtnl_pos_info	Ans10	M	M
90	Orig_data_elemts	n42	M	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	Ans...100(LLLVAR)	M	M
128	Msg_authn_code	b64	C9	C9

7.9.2.6 Stand-in Authorization Advice Message of Purchase Cancellation and Pre-authorization Completion Cancellation Transaction

Table 162 International Transactions — Stand-in Authorization Advice Message of Purchase Cancellation and Pre-authorization Completion Cancellation Transaction

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0220	0230
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
15	Date_settlmt	n4(MMDD)	M	M
18	Mchnt_type	n4	M	M
19	Acq_inst_cntry_code	n3	C4	
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	M	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
35	Track_2_data	z..37(LLVAR)	C4	
36	Track_3_data	z...104(LLLVAR)	C4	
37	Retrivl_ref_num	an12	M	M

Position	Data Element	Data Type	SW	IS
38	Authr_id_resp	an6	C4	
39	Resp_code	an2	M	M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
48	Addtnl_data_private	ans...512(LLLVAR)	C4	
49	Currcy_code_trans	an3	M	M
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4 “0000”	M	M
60.2	Addtnl_pos_info	ans10	M	M
61	Ch_auth_info	ans..200	C4	
90	Orig_data_elemts	n42	M	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	M	M
128	Msg_authn_code	b64	C9	C9

7.9.2.7 Stand-in Authorization Advice Message of Pre-authorization Cancellation and Authorization Cancellation Transaction

Table 163 International Transactions — Stand-in Authorization Advice Message of Pre-authorization Cancellation and Authorization Cancellation Transaction

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0120	0130
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M
3	processing_code	n6	M	M
4	Amt_trans	n12	M	M
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
11	Sys_trace_audit_num	n6	M	M
12	Time_local_trans	n6(hhmmss)	M	M
13	Date_local_trans	n4(MMDD)	M	M
15	Date_settlmt	n4(MMDD)	M	M
18	Mchnt_type	n4	M	M
19	Acq_inst_cntry_code	n3	C4	
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	M	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
35	Track_2_data	z..37(LLVAR)	C4	
36	Track_3_data	z...104(LLLVAR)	C4	
37	Retrivl_ref_num	an12	M	M

Position	Data Element	Data Type	SW	IS
38	Authr_id_resp	an6	M	
39	Resp_code	an2	M	M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
48	Addtnl_data_private	ans...512(LLLVAR)	C4	
49	Currcy_code_trans	an3	M	M
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4 "0000"	M	M
60.2	Addtnl_pos_info	ans10	M	M
61	Ch_auth_info	ans..200(LLLVAR)	C4	
90	Orig_data_elemts	n42	C4	
100	Rrcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	M	M
128	Msg_authn_code	b64	C9	C9

7.9.3 Definition of Dispute Resolution Message (Participants in Mainland of China Use Only at this stage)

The institutions participating in international transactions can initiate the dispute resolution request through the CUP Dispute Resolution Platform (CDRS). Upon the request of the sender or receiver of the dispute resolution, CUP sends the dispute resolution advice message to the sender or receiver. The sender or receiver of the dispute resolution can be the acquiring or issuing institution of the original transaction.

Since the Participant cannot submit the dispute in the form of online message, the dispute resolution advice message is only applicable to:

——CUP system sends dispute request confirmation advice to the acquirer/dispute sender

——CUP system sends dispute resolution advice to the issuer/dispute receiver

7.9.3.1 Credit Adjustment Advice, Debit Adjustment Advice, Representment Advice, Chargeback Advice, Second Chargeback Advice, Manual Refund Advice

Table 164 International Transactions — Credit Adjustment Advice/Debit Adjustment Advice/Representment Advice/Chargeback Advice/Second Chargeback Advice/Manual Refund Advice Message (sent to the acquirer)

Position	Data Element	Data Type	SW	AC
	Message Type ID	n4	0422	0432
	Bitmap	b128	M	M

Position	Data Element	Data Type	SW	AC
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
5	Amt_settlmt	n12	C14	
6	Amt_cdhldr_bil	n12	C15	
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
9	Conv_rate_settlmt	n8	C14	
10	Conv_rate_cdhldr_bil	n8	C15	
11	Sys_trace_audit_num	n6	M	M
13	Date_local_trans	n4(MMDD)	M	M
15	Date_settlmt	n4(MMDD)	M	M
18	Mchnt_type	n4	M	M
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	M	M
28	Amt_trans_fee	X+n8	C4	C0
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
49	Currcy_code_trans	an3	M	M
50	Currcy_code_settlmt	an3	C14	
51	Currcy_code_cdhldr_bil	an3	C15	
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	M	M
60.2	Addtnl_pos_info	ans10	M	M
90	Orig_data_elemts	n42	M	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	0	C0
128	Msg_authn_code	b64	C9	C9

Table 165 International Transactions — Credit Adjustment Advice/ Debit Adjustment Advice/Representment Advice/Chargeback Advice/Second Chargeback Advice/Manual Refund Advice Message (sent to the issuer)

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0220	0230
	Bitmap	b128	M	M

Position	Data Element	Data Type	SW	IS
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
5	Amt_settlmt	n12	C14	
6	Amt_cdhldr_bil	n12	C15	
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
9	Conv_rate_settlmt	n8	C14	
10	Conv_rate_cdhldr_bil	n8	C15	
11	Sys_trace_audit_num	n6	M	M
13	Date_local_trans	n4(MMDD)	M	M
15	Date_settlmt	n4(MMDD)	M	M
18	Mchnt_type	n4	M	M
22	Pos_entry_mode_code	n3	M	
25	Pos_cond_code	n2	M	M
28	Amt_trans_fee	X+n8	C4	C0
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	M	M
38	Authr_id_resp	an6	C4	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	M	M
42	Card_accptr_id	ans15	M	M
43	Card_accptr_name_loc	ans40	M	
49	Currcy_code_trans	an3	M	M
50	Currcy_code_settlmt	an3	C14	
51	Currcy_code_cdhldr_bil	an3	C15	
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	M	M
60.2	Addtnl_pos_info	n10	M	M
90	Orig_data_elemts	n42	M	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	0	C0
128	Msg_authn_code	b64	C9	C9

7.9.3.2 Exceptional Processing Advice

Table 166 International Transactions — Exceptional Processing Advice (sent to the initiator)

Position	Data Element	Data Type	SW	SD
	Message Type ID	n4	0422	0432
	Bitmap	b128	M	M

Position	Data Element	Data Type	SW	SD
2	Primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
5	Amt_settlmt	n12	C14	
6	Amt_cdhldr_bil	n12	C15	
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
9	Conv_rate_settlmt	n8	C14	
10	Conv_rate_cdhldr_bil	n8	C15	
11	Sys_trace_audit_num	n6	M	M
13	Date_local_trans	n4(MMDD)	C17	C0
15	Date_settlmt	n4(MMDD)	M	M
18	Mchnt_type	n4	C17	C0
22	Pos_entry_mode_code	n3	C17	
25	Pos_cond_code	n2	M	M
28	Amt_trans_fee	X+n8	C17	C0
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	C17	C0
38	Authr_id_resp	an6	C17	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	C17	C0
42	Card_accptr_id	ans15	C17	C0
43	Card_accptr_name_loc	ans40	C17	
49	Currcy_code_trans	an3	M	M
50	Currcy_code_settlmt	an3	C14	
51	Currcy_code_cdhldr_bil	an3	C15	
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	M	M
60.2	Addtnl_pos_info	ans10	M	M
90	Orig_data_elemts	n42	C17	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	0	C0
128	Msg_authn_code	b64	C9	C9

Table 167 International Transactions — Exceptional Processing Advice (sent to the receiver)

Position	Data Element	Data Type	SW	RC
	Message-Type-IDentifier	n4	0220	0230
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	M	M

Position	Data Element	Data Type	SW	RC
3	Processing_code	n6	M	M
4	Amt_trans	n12	M	M
5	Amt_settlmt	n12	C14	
6	Amt_cdhldr_bil	n12	C15	
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
9	Conv_rate_settlmt	n8	C14	
10	Conv_rate_cdhldr_bil	n8	C15	
11	Sys_trace_audit_num	n6	M	M
13	Date_local_trans	n4(MMDD)	C17	C0
15	Date_settlmt	n4(MMDD)	M	M
18	Mchnt_type	n4	C17	C0
22	Pos_entry_mode_code	n3	C17	
25	Pos_cond_code	n2	M	M
28	Amt_trans_fee	X+n8	C17	C0
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	C17	C0
38	Authr_id_resp	an6	C17	
39	Resp_code	an2		M
41	Card_accptr_termnl_id	ans8	C17	C0
42	Card_accptr_id	ans15	C17	C0
43	Card_accptr_name_loc	ans40	C17	
49	Currcy_code_trans	an3	C17	C0
50	Currcy_code_settlmt	an3	C14	
51	Currcy_code_cdhldr_bil	an3	C15	
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	M	M
60.2	Addtnl_pos_info	n10	M	M
90	Orig_data_elemts	n42	C17	
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	O	C0
128	Msg_authn_code	b64	C9	C9

7.9.3.3 Fee Collection/Fund Disbursement Advice

When CUP initiates a fee collection/fund disbursement transaction on the CDRS, CUP system will send the fee collection/fund disbursement advice message upon the request of the Participant. If the Participant chooses the advice method of online message, CUP system will send the fee collection/fund disbursement advice message.

The fee collection/fund disbursement advice can only be sent by CUP system.

Table 168 International Transactions — Fee Collection/Fund Disbursement Advice

Position	Data Element	Data Type	SW	RC
	Message Type ID	n4	0220	0230
	Bitmap	b128	M	M
2	Primary_acct_num	n..19(LLVAR)	C10	C0
3	Processing_code	n6	19X000/ 29X000	M
4	Amt_trans	n12	M	M
5	Amt_settlmt	N12	C14+	
7	Transmsn_date_time	n10(MMDDhhmmss)	M	M
9	Conv_rate_settlmt	n8	C14+	
11	Sys_trace_audit_num	n6	M	M
15	Date_settlmt	n4(MMDD)	M	M
16	Date_conv	n4(MMDD)	C14+	
25	Pos_cond_code	n2	00	M
32	Acq_inst_id_code	n..11(LLVAR)	M	M
33	Fwd_inst_id_code	n..11(LLVAR)	M	M
37	Retrivl_ref_num	an12	M	M
39	Resp_code	an2		M
48	Additional_data	ans…512(LLLVAR)	M	
49	Currcy_code_trans	an3	M	M
50	Currcy_code_settlmt	an3	C14+	
60	Reserved	ans...030(LLLVAR)	M	M
60.1	Msg_rsn_code	n4	M	M
60.2	Addtnl_pos_info	ans10	M	M
100	Rcvg_inst_id_code	n..11(LLVAR)	M	M
121	National_sw_resved	ans...100(LLLVAR)	0	C0
122	Acq_inst_resvd	ans...100(LLLVAR)	0	C0
123	Issr_inst_resvd	ans...100(LLLVAR)	0	C0
128	Msg_authn_code	b64	C9	C9

7.9.4 Definition of Security Control Message and Management Message

Please refer to section 7.6 for the definition of security control message, and section 7.7 for management message.

7.9.5 Definition of Message for Clearing and Settlement, and Day-end Batch Processing

Please refer to section 7.5 for the detail definition of message for clearing and settlement, and day-end batch processing.

7.10 Definition of IC Card Transaction Message (Participants in Mainland of China Use Only)

7.10.1 Domestic Request Transactions of IC Card Based on PBOC Debit/Credit Card Standard (not used at current stage)

The following transactions are applicable to CUP card domestic transactions inside Mainland of China, including:

- Balance inquiry
- Cash withdrawal
- Purchase
- Purchase cancellation
- Pre-authorization
- Pre-authorization cancellation

7.10.1.1 Message Format of Balance Inquiry, Purchase, Cash Withdrawal, Pre-authorization Transaction

The basic format for balance inquiry, purchase, cash withdrawal, pre-authorization transactions remain unchanged. Please note the following:

- Add Field 23
- IC cards based on PBOC debit/credit standard support off-line or on-line PIN verification. For the off-line PIN verification, PIN cannot be submitted off-line due to the security purpose. Therefore, in field 52, the condition will be revised to accommodate this new feature of IC card.
- Field 22, field 60.2.2, field 60.2.3 and field 60.2.7 are filled with the value in line with IC card requirement.
- Field 55 appears.
- As for balance inquiry, subfields with tag valuing “9F02” and “9F03” are filled in with zero in the message format. If the acquirer does not include field 49 in the message, then subfields with tag valuing “5F2A” is filled in with zero; otherwise it should adopt the value of field 49. The following table only lists those fields that must be added or changed for IC card transactions and changes of field 55. Please refer to format of magnetic stripe card transaction for other information.

Table 180 IC Card Message Format of Balance Inquiry, Purchase, Cash Withdrawal, Pre-authorization Transaction

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0100/0200		0110/0210	
23	card_seq_id	n3	C51	→	C0	→
52	pin_data	b64	C56	→		
55	ICC_data	Maximum 255 bytes (VAR)				
9F26 (tag)	app_crypto	b64	M	→		

9F27 (tag)	crypto_info_data	b8	M	→		
9F10 (tag)	issr_app_data	b…256 (VAR)	M	→		
9F37 (tag)	unpredic_num	b32	M	→		
9F36 (tag)	app_trans_count	b16	M	→	0	→
95 (tag)	termnl_veri_resl	b40	M	→		
9A (tag)	trans_date	cn3	M	→		
9C (tag)	trans_type	cn1	M	→		
9F02 (tag)	trans_amt	cn6	M	→		
5F2A (tag)	trans currcy code	cn2	M	→		
82 (tag)	app_interch_profl	b16	M	→		
9F1A (tag)	termnl_cntry_code	cn2	M	→		
9F03 (tag)	amt_other	cn6	M	→		
9F33 (tag)	termnl_capbs	b24	M	→		
9F34 (tag)	card_ver_resl	b24	O	→		
9F35 (tag)	termnl_type	cn1	O	→		
9F1E (tag)	ifd_serial_num	an8	C50	→		
84 (tag)	DF_name	b…128 (VAR)	O	→		
9F09 (tag)	trem_app_ver_num	b16	O	→		
9F41 (tag)	trans_seq_count	cn…4 (VAR)	O	→		
91 (tag)	iss_auth_data	b…128 (VAR)			O	→
71 (tag)	issr_scrpt1	b..1024 (VAR)			O	→
72 (tag)	issr_scrpt2	b..1024 (VAR)			O	→
61	ch_auth_info	ans…200 (LLLVAR)		C54+	C16	→

7.10.1.2 Message Format of Purchase Cancellation, Deposit Cancellation and Pre-authorization Cancellation

IC card transaction information of field 55 is not required to be submitted for purchase cancellation, deposit cancellation and pre-authorization cancellation transactions. The message format is almost the same as that of magnetic stripe card transactions with the same message name. However, please note the following:

- Add Field 23
- IC cards based on PBOC debit/credit standard support off-line or on-line PIN verification. For the off-line PIN verification, PIN cannot be submitted off-line due to the security purpose. Therefore, in field 52, the condition will be revised to accommodate this new feature of IC card.
- Field 22, field 60.2.2, and field 60.2.3 are filled with the value in line with IC card requirement.

The difference of the message format between PBOC debit/credit card and non-PBOC debit/credit card for purchase cancellation, and pre-authorization cancellation is as follows:

Table 181 IC Card Message Format for Purchase Cancellation and Deposit Cancellation Transaction

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0100/0200		0110/0210	
23	Card_seq_id	n3	C51	→	C0	→
52	Pin_data	b64	C56	→		
a: Since the cancellation occurs on the same day as the original transaction, the value in field 23 should match that of the original transaction.						

Table 182 IC Card Message Format for Pre-authorization Cancellation

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0100/0200		0110/0210	
23	Card_seq_id	n3	C51	→	C0	→
52	Pin_data	b64	C56	→		
a: Since the cancellation may occur on another day which is not the transaction day of the original transaction, the value in field 23 does not have to be matched.						

7.10.1.3 Message Format for Deposit, Transfer and Transfer-out

Two pieces of IC card transaction information of field 55 are required to be submitted for deposit, transfer and transfer-out transactions, but the message format is almost the same as that of the magnetic stripe card transaction with the same message name. Please note of the following:

- Add field 23
- IC cards based on PBOC debit/credit standard support off-line or on-line PIN verification. For the off-line PIN verification, PIN cannot be submitted off-line due to the security purpose. Therefore, in field 52, the condition will be revised to accommodate this new feature of IC card.
- Field 22, field 60.2.2, and field 60.2.3 are filled with the value in line with IC card requirement.
- Add subfield information with tag valuing “9F36” and “95”.

Table 183 IC Card Message Format for Deposit Transaction

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0100/0200		0110/0210	
23	Card_seq_id	n3	C51	→	C0	→
52	Pin_data	b64	C56	→		
55	ICC_data	Maximum 255 bytes (VAR)				
95 (tag)	termnl_veri_resl	b40	M	→		
9F36	app_trans_count	b16	M	→	0	→

Position	Data Element	Data Type	AC	SW	IS	SW
(tag)						

In transfer transaction, the difference of the message format between PBOC debit/credit card and non- PBOC debit/credit card for transfer message sent by the acquirer to CUP is as follows:

Table 184 IC Card Message Format (sent by the acquirer to CUP)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0100	0200
23	Card_seq_id	n3	C51	C0
52	Pin_data	b64	C56	
55	ICC_data	Maximum 255 bytes (VAR)		
95 (tag)	termnl_veri_resl	b40	M	C0
9F36 (tag)	app_trans_count	b16	M	

In transfer transaction, the difference of the message format between PBOC debit/credit card and non- PBOC debit/credit card for transfer-out message sent by CUP is as follows:

Table 185 IC Card Message Format in Transfer-out Message (sent by CUP)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0200	0210
23	Card_seq_id	n3	C51	C0
52	Pin_data	b64	C56	
55	ICC_data	Maximum 255 bytes (VAR)		
9F36 (tag)	app_trans_count	B16	M	0
95 (tag)	termnl_veri_resl	B40	M	

7.10.1.4 Message Format for Balance Inquiry and Authorization of Dual Message

The message format is the same as that for balance inquiry and authorization of single message.

7.10.2 Advice Transactions of IC Card Based on PBOC Debit/Credit Card Standard (not used at current stage)

The following transactions are applicable to the intra-country transactions inside Mainland of China:

- (Offline) pre-authorization completion
- Refund

- Deposit confirmation
- The reversal of request transaction
- Settlement advice

7.10.2.1 (Offline) Pre-authorization Completion

Basically, the message format of (offline) pre-authorization completion transaction is the same as that of magnetic stripe card. For the transaction flow, the information of field 55 is not required to be submitted by the terminal, but the following should be noted:

- Add field 23
- Field 22, field 60.2.2 and field 60.2.3 should be filled with the value in line with the requirement of IC card.

The message format of the difference:

Table 186 IC Card Message Format for (Offline) Pre-authorization Completion Transaction Message (sent by the acquirer)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0220	0230
23	Card_seq_id	n3	C51	C0

Table 187 IC Card Message Format for (Offline) Pre-authorization Completion Transaction Message (sent by CUP)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0220	0230
23	Card_seq_id	n3	C51	C0

7.10.2.2 Message Format of Refund and Settlement Advice

The IC card transaction information in field 55 is not required to be submitted for refund and settlement advice transaction. Therefore, the message format is basically the same as that of magnetic stripe card, but the following points should be noted:

- Add field 23
- Field 22, field 60.2.2 and field 60.2.3 should be filled with the value in line with requirement of the IC card.

The message format of the difference:

Table 188 IC Card Message Format for Refund, Settlement Advice Transaction

(sent by the acquirer)

Position	Data Element	Data Type	AC	SW

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0220	0230
23	Card_seq_id	n3	C51	C0

Table 189 IC Card Message Fromat for Refund, Settlement Advice Transaction (sent by CUP)

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0220	0230
23	Card_seq_id	n3	C51	C0

7.10.2.3 Message Format for Deposit Confirmation

One piece of important IC card transaction information in field 55 is required to be submitted in deposit confirmation, but the message format is basically the same as that of magnetic stripe card transactions. However, the following should be noted:

- Add field 23
- Field 22, field 60.2.2 and field 60.2.3 should be filled with the value in line with requirement of the IC card.
- Subfield with tag valuing “9F36” is added.

The message format of the difference:

Table 190 IC Card Message Format for Deposit Confirmation (sent by the acquirer)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0220	0230
23	Card_seq_id	n3	C51	C0
55	ICC_data	Maximum 255 bytes (VAR)		
9F36 （tag）	app_trans_count	B16	M	M

Table 191 IC Card Message Format for Deposit Confirmation (sent by CUP)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0220	0230
23	Card_seq_id	n3	C51	C0
55	ICC_data	Maximum 255 bytes (VAR)		
9F36 (tag)	app_trans_count	b16	M	0

7.10.2.4 Reversal Message Format

7.10.2.4.1 Reversal Transaction Message Format with Field 55 Information in the Original Transaction

The message format is basically the same as that of magnetic stripe card, but the following points should be noted:

- Add field 23
- Field 22, field 60.2.2 and field 60.2.3 should be filled with the value in line with the requirement of IC card.
- Add field 55

The message format of the difference:

Table 192 The IC Card Message of Reversal Transaction (sent by the acquirer)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0420	0430
23	Card_seq_id	n3	C51	C0
55	ICC_data	Maximum 255 bytes (VAR)		
95 (tag)	Termnl_veri_resl	b40	C53	
9F1E(tag)	Ifd_serial_num	an8	C50	
9F10	Issr_app_data	b..256(VAR)	C53	
9F36 (tag)	App_trans_count	b16	M	0
DF31(tag)	Issr_scrpt_ resl	b..168(VAR)	C55	

Table 193 IC Card Message of Reversal Transaction (sent by CUP)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0420	0430
23	Card_seq_id	n3	C51	C0
55	ICC_data	Maximum 255 bytes (VAR)		
95 (tag)	Termnl_veri_resl	b40	C0	
9F1E(tag)	Ifd_serial_num	an8	C0	
9F10	Issr_app_data	b..256(VAR)	C0	
9F36 (tag)	App_trans_count	b16	M	0
DF31(tag)	Issr_scrpt_ resl	b..168(VAR)	C0	

7.10.2.4.2 Reversal Transaction Message Format without Field 55 Information in the Original Transaction

Message format of reversal transaction is basically the same as that of magnetic stripe card transactions. However, the following should be noted:

- Add field 23
- Field 22, field 60.2.2 and field 60.2.3 should be filled with the value in line with the requirement of IC card.

The message format of the difference:

Table 194 IC Card Message Format for Reversal Transaction (sent by the acquirer)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0420	0430
23	Card_seq_id	n3	C51	C0

Table 195 IC Card Message Format for Reversal Transaction (sent by CUP)

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0420	0430
23	Card_seq_id	n3	C51	C0

7.10.3 Message Definition for Foreign Card Acquiring Business based on EMV standard (not used at current stage)

This section is to describe the message definition of foreign card acquiring business based on EMV including VISA, MasterCard, etc, not related to CUP card transaction, therefore it is removed.

7.10.4 Message Format of Script Processing Result Advice for IC Card Based on PBOC Debit/Credit Card Standard (not used at current stage)

When a transaction (for CUP card intra-country transactions inside Mainland of China, it only includes balance inquiry, cash withdrawal, purchase and pre-authorization) contains the issuer script, the acquirer should immediately notify the issuer of the script processing result of the card. The shaded message field takes the same value as that of the original transaction.

Table 196 IC Card Script Processing Result Based on PBOC Debit/Credit Card Standard (sent by the acquirer)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0620	0630
	Bitmap	b128	M	M
2	primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	amt_trans	n12	C4	
7	transmsn_date_time	n10(MMDDhhmmss)	M	M
11	sys_trace_audit_num	n6	M	M
12	time_local_trans	n6(hhmmss)	M	M
13	date_local_trans	n4(MMDD)	M	M

15	date_settlmt	n4(MMDD)		M
18	date_settlmt	n4	M	
22	pos_entry_mode_code	n3	M	
23	card_seq_id	n3	C51	C0
32	acq_inst_id_code	n..11(LLVAR)	M	M
33	fwd_inst_id_code	n..11(LLVAR)	M	M
37	retrivl_ref_num	an12	M	
39	resp_code	an2	M	M
41	card_accptr_termnl_id	ans8	M	M
42	card_accptr_id	ans15	M	M
43	card_accptr_name_loc	ans40	M	
49	currcy_code_trans	an3	M	
55	ICC_data	Maximum 255 bytes(VAR)		
9F33(tag)	termnl_capbs	b24	C4	
95(tag)	termnl_veri_resl	b40	M	
9F37(tag)	unpredic_num	b32	C4	
9F1E(tag)	ifd_serial_num	an8	C4	
9F10(tag)	issr_app_data	b..256(VAR)	M	
9F26(tag)	app_crypto	b64	M	
9F36(tag)	app_trans_count	b16	M	0
82(tag)	app_interch_profl	b16	M	
DF31(tag)	issr_scrpt_resl	b..168(VAR)	M	
9F1A(tag)	trans_cntry_code	cn2	M	
9A(tag)	trans_date	cn3	M	
60	reserved	ans...030(LLLVAR)	M	
60.1	msg_rsn_code	n4	0000	
60.2	addtnl_pos_info	ans10	M	
70	netwk_mgmt_info_code	n3	M	M
90	orig_data_elemts	n42	M	
100	rcvg_inst_id_code	n..11(LLVAR)		M

Table 197 IC Card Script Processing Result Based on PBOC Debit/Credit Card Standard (sent by CUP)

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0620	0630
	Bitmap	b128	M	M
2	primary_acct_num	n..19(LLVAR)	M	M
3	Processing_code	n6	M	M
4	amt_trans	n12	C4	
7	transmsn_date_time	n10(MMDDhhmmss)	M	M

11	sys_trace_audit_num	n6	M	M
12	time_local_trans	n6(hhmmss)	M	M
13	date_local_trans	n4(MMDD)	M	M
15	date_settlmt	n4(MMDD)	M	M
18	date_settlmt	n4	M	
23	card_seq_id	n3	C51	C0
32	acq_inst_id_code	n..11(LLVAR)	M	M
33	fwd_inst_id_code	n..11(LLVAR)	M	M
37	retrivl_ref_num	an12	M	M
39	resp_code	an2	M	M
41	card_accptr_termnl_id	ans8	M	M
42	card_accptr_id	ans15	M	
43	card_accptr_name_loc	ans40	M	
49	currcy_code_trans	an3	M	
55	ICC_data	Maximum 255 bytes （VAR）		
9F33(tag)	termnl_capbs	b24	C0	
95(tag)	termnl_veri_resl	b40	M	
9F37(tag)	unpredic_num	b32	C0	
9F1E(tag)	ifd_serial_num	an8	C0	
9F10(tag)	issr_app_data	b..256（VAR）	M	
9F26(tag)	app_crypto	b64	M	
9F36(tag)	app_trans_count	b16	M	0
82(tag)	app_interch_profl	b16	M	
DF31(tag)	issr_scrpt_resl	b..168(VAR)	M	
9F1A(tag)	trans_cntry_code	cn2	M	
9A(tag)	trans_date	cn3	M	
60	reserved	ans...030(LLLVAR)	M	
60.1	msg_rsn_code	n4	M	
60.2	addtnl_pos_info	ans10	M	
70	netwk_mgmt_info_code	n3	M	M
90	orig_data_elemts	n42	M	
100	rcvg_inst_id_code	n..11(LLVAR)	M	M

7.10.5 Message Definition of Clearing, Settlement and Day-end Batch Processing for IC Card Based on PBOC Debit/Credit Standard (not used at current stage)

It is the same as that of magnetic stripe card.

7.10.6 Message Interface Definition of Dispute Resolution for IC Card Based on PBOC Debit/Credit Standard (not used at current stage)

Dispute transactions (only including credit adjustment advice, debit adjustment advice, representment advice, chargeback advice, second chargeback advice, manual refund advice, exceptional processing and fee collection/funds disbursement advice in CUP card intra-country transactions inside Mainland of China) are all initiated by CUP. The IC card transaction information in field 55 is not required to be submitted. Therefore, the message format is basically the same as that of magnetic stripe card, but the following points should be noted:

- Add field 23
- Field 22, field 60.2.2 and field 60.2.3 should be filled with the value in line with the requirements of IC cards.

The message format of the difference:

Table 198 IC card Message Format of Dispute Transaction

Position	Data Element	Data Type	SW	RC
	Message Type ID	n4	0422/0220	0432/0230
23	Card_seq_id	n3	C51	C0

7.11 Definition of Network Switch Advice Message Interface

Please refer to *Part V Communication Interface* in this Specifications for detailed explanations and definitions of the format.

7.12 Message Definition for Internet Transaction Certified by CUPSecure

7.12.1 Message Definition of Internet Transaction inside Mainland of China Certified by CUPSecure

7.12.1.1 Purchase, Pre-authorization, Authorization and Balance Inquiry

Message format for purchase, pre-authorization, authorization and balance inquiry is basically same with message format of magnetic strip card transaction inside mainland of china, some difference is as follows:

a. Track data may not appear in the transaction request message, and the first two positions of field 22 should have value of ‘00’.

b. Acquirer does not know if there is PIN entered, as CUPSecure sends PIN data to CUP directly. Acquirer fills field 22 with value of ‘000’, but CUP will fill field 22 according to whether CUPSecure transmits PIN. If PIN is required, the third position of field 22 should have value of ‘1’, otherwise, have value of ‘2’. Acquirer does not know if field 26 appears, which should be filled by CUP.

c. Acquirer does not need to fill field 48 which is filled by CUP according to the requirement of CUPSecure certification.

d. Acquirer should fill field 60.2.5 with value of '07'

e. Field 60.2.8 must appear and be filled by acquirer

f. Some positions of field 61.6 must be filled by acquirer, but CUP may change field 61.6 sent by acquirer.

The following message definition only describes the fields which should be added and changed for transaction certified by CUPSecure, definition for other fields refers to the definition for magnetic strip card transaction.

Table 199 Purchase, Pre-authorization, Authorization and Balance Inquiry Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0100/0200		0110/0210	
14	Date_expr	n4(YYMM)	O	C16	M	→
22	Pos_entry_mode_code	n3	000	C16		
26	Pos_pin_capture_code	n2		C8		
35	Track-2-data	z…37(LLVAR)	C1	→		
36	Track-3-data	z…104(LLLVAR)	C2	→		
48	Addtnl_data_private	ans...512(LLLVAR)	0	C16		
52	Pin-data	b64		C60		
53	Security_related_control_info	n16		C8		
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4	0000	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→
61	Ch_auth_info	ans…200(LLLVAR)	M	M	O	C0

7.12.1.2 Pre-authorization Completion (online), Purchase Cancellation, Pre-authorization Cancellation, Pre-authorization Completion Cancellation and Authorization Cancellation

Message format for Pre-authorization completion (online), purchase cancellation, Pre-authorization cancellation, Pre-authorization completion cancellation and authorization cancellation is basically same with message format of magnetic strip card transaction inside mainland of china, some difference is as follows:

a. Track data may not appear in the transaction request message, and the first two positions of field 22 should have value of '00'.

b. Acquirer should fill field 60.2.5 which must be same with that of original transaction

c. Acquirer should fill field 60.2.8 which must be same with that of original transaction

The following message definition only describes the fields which should be added and changed for transaction certified by CUPSecure, definition for other fields refers to the definition for magnetic strip card transaction.

Table 200 Pre-authorization Completion (online), Purchase Cancellation, Pre-authorization Cancellation, Pre-authorization Completion Cancellation and Authorization Cancellation Message

Position	Data Element	Data Type	AC	SW	IS	SW
	Message Type ID	n4	0200		0210	
35	Track-2-data	z…37(LLVAR)	C1	→		
36	Track-3-data	z…104(LLLVAR)	C2	→		
60	Reserved	ans...030(LLLVAR)	M	→	M	→
60.1	Msg_rsn_code	n4	0000	→	M	→
60.2	Addtnl_pos_info	ans10	M	→	M	→

7.12.1.3 (online) Refund

Message format for (online) refund is basically same with message format of magnetic strip card transaction inside mainland of china, some difference is as follows:

a. Acquirer should fill field 60.2.5 which must be same with that of original transaction

b. Acquirer should fill field 60.2.8 which must be same with that of original transaction

The following message definition only describes the fields which should be added and changed for transaction certified by CUPSecure, definition for other fields refers to the definition for magnetic strip card transaction.

Table 201 (Online) Refund (sent by acquirer)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0220	0230
60	reserved	ans...030(LLLVAR)	M	M
60.1	msg_rsn_code	n4	M	M
60.2	addtnl_pos_info	ans10	M	M

Table 202 (Online) Refund (sent by CUP)

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0220	0230
60	reserved	ans...030(LLLVAR)	M	M
60.1	msg_rsn_code	n4	M	M

60.2	addtnl_pos_info	ans10	M	M

7.12.1.4 Reversal

Reversal transaction includes reversal for purchase, purchase cancellation, pre-authorization, pre-authorization cancellation, pre-authorization completion, pre-authorization completion cancellation, authorization and authorization cancellation. Its message format is basically same with message format of magnetic strip card transaction inside mainland of china, some difference is as follows:

a. Acquirer should fill field 60.2.5 which must be same with that of original transaction

b. Acquirer should fill field 60.2.8 which must be same with that of original transaction

The following message definition only describes the fields which should be added and changed for transaction certified by CUPSecure, definition for other fields refers to the definition for magnetic strip card transaction.

Table 203 Reversal Message (sent by acquirer)

Position	Data Element	Data Type	AC	SW
	Message Type ID	n4	0420	0430
60	reserved	ans...030(LLLVAR)	M	M
60.1	msg_rsn_code	n4	M	M
60.2	addtnl_pos_info	ans10	M	M

Table 204 Reversal Message (sent by CUP)

Position	Data Element	Data Type	SW	IS
	Message Type ID	n4	0420	0430
60	reserved	ans...030(LLLVAR)	M	M
60.1	msg_rsn_code	n4	M	M
60.2	addtnl_pos_info	ans10	M	M

7.12.1.5 Dispute Resolution Advice Message

Dispute resolution transaction includes credit adjustment, debit adjustment, chargeback, second presentment, second chargeback, processing exception, fee collection and payment, which is always initiated by CUP. Its message format is basically same with message format of magnetic strip card transaction inside mainland of china, some difference is as follows:

a. Acquirer should fill field 60.2.5 which must be same with that of original transaction

b. Acquirer should fill field 60.2.8 which must be same with that of original transaction

The following message definition only describes the fields which should be added and changed for transaction certified by CUPSecure, definition for other fields refers to the definition for magnetic strip card transaction.

Table 205 Dispute Resolution Advice Message

Position	Data Element	Data Type	SW	RC
	Message Type ID	n4	0420/0220	0430/0230
60	reserved	ans...030(LLLVAR)	M	M
60.1	msg_rsn_code	n4	M	M
60.2	addtnl_pos_info	ans10	M	M

7.12.2 Message Definition of International Internet Transaction Certified by CUPSecure

7.12.2.1 Purchase, Pre-authorization, Authorization and Balance Inquiry

Message format for purchase, pre-authorization, authorization and balance inquiry is basically same with message format of international magnetic strip card transaction. Please refer to section 7.12.1.1 for some difference with normal magnetic strip card transaction.

7.12.2.2 Pre-authorization Completion (online), Purchase Cancellation, Pre-authorization Cancellation, Pre-authorization Completion Cancellation

Message format for Pre-authorization completion (online), purchase cancellation, Pre-authorization cancellation, Pre-authorization completion cancellation and authorization cancellation is basically same with message format of international magnetic strip card transaction. Please refer to section 7.12.1.2 for some difference with normal magnetic strip card transaction.

7.12.2.3 (online) Refund

Message format for (online) refund is basically same with message format of international magnetic strip card transaction. Please refer to section 7.12.1.3 for some difference with normal magnetic strip card transaction.

7.12.2.4 Reversal

Message format for reversal is basically same with message format of international magnetic strip card transaction. Please refer to section 7.12.1.4 for some difference with normal magnetic strip card transaction.

7.12.2.5 Dispute Resolution Advice

Message format for dispute resolution advice is basically same with message format of international magnetic strip card transaction. Please refer to section 7.12.1.5 for some difference with normal magnetic strip card transaction.