UHF
RFID application-layer communications protocol

(Version V2.0.8)

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1. Outline

UHF RFID is an application layer protocolUHF reader module and the external communications protocol. By this protocol, the data communication between the external device and the reader module.

1、UHFModule and PC using asynchronous serial interface (UART, TTL level)Data communication, the baud rate 115200 default data bits, 1 stop bit, no parity bit, no hardware flow control. Data are transmitted according to a fixed frame format.

2、UHF reader may be used in addition to the serial communication, also support TCP / IP communications.

2. Data transmission frame format

Data frame header, frame length, the CMD type, data, and frame check code tail components. As shown in Table 1.

Transmission data
frame format

Head	Frame	Type	data	BCC code	End
2 bytes	2 bytes	1 byte	N	1 byte	2 bytes

2.1. Header and trailer

On behalf of the packet header beginning, a total of 2 bytes, a fixed value 0xC8,0x8COr 0xA5,0x5A, end of frame showing the end of the packet, total2 bytes, a fixed value 0x0d, 0x0a (return followed by line feed).

2.2. Frame length

A length of the data frame length, is the length, the end of the entire frame comprising frame header data. The specific terms Calculation formula is:
Length = frame header (2 bytes) + frame length (2 bytes) + the CMD Type (1 byte) + data (N bytes) + the BCC code (1 byte) + tail frame (2 bytes).

2.3. CMD type list

CMD is the command type to distinguish between different types of control commands, UHF or reader module performs the corresponding operation according to the command type.

CMD type list

Command Function	Type CMD
Acquisition hardware version number	0x00
Answer acquisition hardware version	0x01
Obtain the firmware version number	0x02
Firmware version number of responses	0x03
Acquisition module ID	0x04
ID response acquisition module	0x05
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Get the current temperature-responsive	0x35
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Setting the temperature protection	0x39
Get temperature protection value	0x3A
Gets temperature protection setting	0x3B

Reserve	0x3C-0x49
An antenna working hours	0x4A
An antenna working time response	0x4B
Gets antenna working hours	0x4C
Obtain an antenna response time	0x4D
Multi-antenna work interval	0x4E
Multi-antenna work interval reply	0x4F
Obtain multi-antenna work interval	0x50
Obtain multi-antenna work interval	0x51
Recommended combinations of RF link	0x52
Set the recommended combination of RF	0x53
Get recommended setting combination of	0x54
Get recommended a combination of RF	0x55
Reserve	0x56-0x5B
Setting FastID function	0x5C
Answer the setting FastID	0x5D
Get FastID functional status	0x5E
Get FastID functional status response	0x5F
Setting TagFocus function	0x60
Answer the setting TagFocus	0x61
Get TagFocus functional status	0x62
Get TagFocus functional status	0x63
Reserve	0x64-0x67
Software reset	0x68
Software reset response	0x69
Reserve	0x6A
Reserve	0x6B
Reserve	0x6C
Reserve	0x6D
Look for the label filter settings	0x6E
Find answer label filter settings	0x6F
Provided simultaneously read EPC +	0x70
Set read simultaneouslyEPC + TID or EPC +	0x71
Get while reading the EPC + TIDOr EPC	0x72
Get read simultaneouslyEPC + TID or EPC +	0x73

reset	0x74
Factory Reset response	0x75
Reserve	0x76 ~ 0x7f
To find a single label	0x80
To find a single label reply	0x81
Continuous find labels	0x82
Continuous labels to find answer	0x83
Stop seeking continuous label	0x8c
Stop the continuous label to find	0x8d
Read Data	0x84
Read data response	0x85
Write data	0x86
Write data response	0x87
Lock tag	0x88
Lock tag replies	0x89
Kill label	0x8a
Kill label reply	0x8b
Reserve	0x8e-0x92
Block Write tag	0x93
Block Write tag replies	0x94
Block Erase Label	0x95
Block Erase transponder tag	0x96
Set command parameters QT	0x97
Set QT command parameter response	0x98
Get command parameter QT	0x99
Get command parameter response QT	0x9a
QT read	0x9b
QT read answer	0x9c
QT writes	0x9d
QT write response	0x9e
Block Permalock operation	0x9f
Block Permalock operating answer	0xa0
Reserve	0xa1 ~ 0xff

2.4. data

The CMD type, the data comprising data and control information. For the command frame, control information indicating, for the response frame, data representing the information returned.

2.5. BCC code

All bytes of data per frame (frame head and tail removed) XOR.

E.g:

0xC8   0x8C   0x00   0x0A   0x43   0x01   0x25   BCC   0x0d   0x0a
BCC = 0x00 ^ 0x0A ^ 0x43 ^ 0x01 ^ 0x25 = 0x6D

3. A communications data frame described

3.1. Device version

3.1.1. Acquisition hardware version number

Data: None
Function: Get hardware version information

Acquisition hardware version command frame

Header		Frame length		Type CMD	data	BCC code	End of
0xC8	0x8C	0x00	0x08	0x00	no	0x08	0x0D
End of							
0x0A							

Description: This command No data

Example: Get a card reader hardware version
command:C8 8C 00 08 00 08 0D   0A

3.1.2. Answer acquisition hardware version number

data:A total of 3 bytesIncluding major version,
minor version and supplements
Function: Acknowledge hardware version information

Provides hardware version of the response frame

Header		Frame length		Type CMD	data		
0xC8	0x8C	0x00	0x0B	0x01	Major Version	Minor version	S u p p l e m e n t

BCCcode	End of frame	
0xxx	0x0D	0x0A

Description: None
Example: the hardware version of the card reader responses V2.0.1
Command: C8 8C   00 0B 01 02   00 01 09 0D 0A

3.1.3.Obtain the
firmware version
number

Data: None
Function: get firmware version information

Get firmware version command frame

Header		Frame length		Type CMD	data	BCC code	End of
0xC8	0x8C	0x00	0x08	0x02	no	0x0A	0x0D

End of
0x0A

Description: None

Example: Get the reader firmware version
command:C88C 00 08 02 0A OD 0A

3.1.4. Firmware version number of responses

data:A total of 3 bytesIncluding major version, minor version and supplements
Function: Answer firmware version

Firmware version response frame

Header		Frame length		Type CMD	data		
0xC8	0x8C	0x00	0x0B	0x03	Major Version	Minor version	Suppleme ntary
BCC code	End of frame						
0xxx	0x0D	0x0A					

Description: None

Example: The firmware version number is V3.01The reader response command:C88C 00 0B 03 03 00 01 0A 0D 0A

3.1.5. Acquisition acquisition equipment**ID**

Data: None
Function: Get the module ID

Get ID command frame module

Header		Frame length		Type CMD	data	BCCcode	End of
0xC8	0x8C	0x00	0x08	0x04	no	0x0C	0x0D
End of							
0x0A							

Description: None

Example: obtaining module ID
command:C88C 00 08 04 0C 0D 0A

3.1.6. Get Device**Answer ID**

data:Altogether 4 bytesThe
moduleID.
Function: Get the module ID response.

ID acquisition response frame module

Header		Frame length		Type CMD	data		
0xC8	0x8C	0x00	0x0C	0x05	Dbyte3	DByte2	DByte1

data	BCC code	End of frame	
DByte0	0xxx	0x0D	0x0A

example:ID for 0xF1 0xF20xF30xF4Reader response
command:C8 8C 00 0C 05 F1 F2 F3 F4 0D 0D 0A

3.2. Device parameter settings

3.2.1. Sets the transmit power

data:6 bytes, Status one byte, one byte antenna number, write power
and read power occupies 2 bytes of read power in dBm units are
Function: specific antenna, which is arranged to read and write
power.

Set the transmit power command frame

Header		Frame length		Type CMD	data		
0xA5	0x5A	0x00	0x0E	0x10	Status	Antenna No.	Read (MSB)

data			BCC code	End of frame	
Read (LSB)	Write (MSB)	Write (LSB)	0xxx	0x0D	0x0A

Status of each bit instructions

Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Rev	Rev	Rev	Rev	Rev	Rev	0: Do not save 1: Save	Rev

Description: 1, bit1 0 indicates that the current settings will be
        lost after a power outage, bit1 1 indicates that the current
        settings will be saved after the power failure, the default
        setting on the next power value of the power value. No.
        hexadecimal representation of the antenna; read after power
        × 100, and then converted to hexadecimal.

        2, the power is currently reserved for reading, there is no
        real meaning.

Example: an antenna 1The power of reading 0dBmWrite power 30dBm,do
not save.
command:C88C 00 0E 10 00 01 00 00 0B   B8 AC 0D   0A

3.2.2. Sets the transmit power response

Data: Set whether symbol of success, success:
0x01; failure: 0x00
Function: Set the transmission power is successful.

Set the transmit power response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x11	OK-0x01 Fail-0x00	0xxx	0x0D

End of
0x0A

Description: None
Example: setting a transmission power success
Command: C8 8C   00 09 11 01 19 0D 0A

3.2.3. Get the current transmit power

Data: None
Function: Get the current transmit power.

Gets the current transmit power command frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x08	0x12	no	1A	0x0D

End of
0x0A

Description: None

Example: Gets the current transmit power

command:C88C 00 08 12 1A 0D 0A

3.2.4. Get the current transmit power response

Data: Status, the antenna and antenna number read power, write power in dBm units are
Function: Get power of each antenna of the reader device.

Get the current transmit power response frame

Header		Frame length		Type CMD	data		
0xC8	0x8C	0xxx	0xxx	0x13	Status	Antenna No.	Read (MSB)
data							
Read (LSB)	Write (MSB)	Write (LSB)	Antenna No.	Read (MSB)	Read (LSB)	Write (MSB)	Write (LSB)
data						BCC code	End of
...	Antenna No.	Read (MSB)	Read (LSB)	Write (MSB)	Write (LSB)	0xxx	0x0D
End of							
0x0A							

Description: 1, Status, Default is 0x00, is reserved for later extensions;

2, a multi-channel device, the system default settings only 1 antenna power port, the other antenna ports needed to power 0 default setting, the user needs. Power to the antenna port 0 will employ the power of the antenna 1.

Example: Antenna 1 Read power30dBmWrite power 30dBmOther antennaPort power are0dB.
C8 8C 00 1d 13 00 01 0b b8 0b b8 02 00 00 00 00 03 00 00 00 00 04 00 00 00 00 0a 0d 0a

3.2.5. Fixed frequency settings

Data: given frequency and a
given number of frequencies
point table.
Function:Fixed frequency operation of equipment, currently supports only one frequency.

Fixed frequency setting command frame

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0xxx	0xxx	0x14	Fixed-frequency	Freq [1]	Freq [1]
data					BCCcode	End of frame	

Freq [1]	...	Freq [n]	Freq [n]	Freq [n]	0xxx	0x0D	0x0A

Description:setFrequently point numberdefaultIs 1, Freq [1]
represents the frequency of the fixed frequency. The unit is KHz
frequency Freq

Example: Set920125KHz (0E0A3D)ofFixed-frequency
command:C8　8C 00 0C 14 01 0E 0A 3D 20 0D　　0A

3.2.6. Fixed-frequency response settings

Data: Set success: 0x01; setup
failed: 0x00
Function: hopping answering.

Setting a fixed frequency response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x15	ok: 0x01 fail: 0x00	0xxx	0x0D

End of
0x0A

Description: None
Example: fixed frequency set successfully
command:C8 8C　00　09　15　01　1D　0D　0A

3.2.7. Get current device setting state fixed frequency

Data: None
Function: Get the current device state and a fixed-frequency
fixed-frequency table.

Get current device status setting command frame fixed
frequency

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x08	0x16	no	0x1E	0x0D

End of
0x0A

Description: None

Example: Get the current device status hopping configuration

command:C88C 00 08 16 1E 0D 0A

3.2.8. Get the current fixed-frequency setting device status response

Data: fixed frequency point
number and frequencies given
in Table
Function: Get the device state and a fixed-frequency fixed-frequency table.

Obtaining current setting device fixed frequency response frame

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0xxx	0xxx	0x17	Channel hopping	Freq [1]	Freq [1]
data				BCCcode	End of frame		
Freq [1]	...	Freq [n]	Freq [n]	0xxx	0x0D	0x0A	

Description: Sets the number of frequency points 1, Freq [1] represents the frequency of the fixed frequency. The unit is KHz frequency Freq

Example: EquipmentFrequently set point 920125 (0E0A3D).
C8 8C 00 0C 17 01 0E 0A 3D twenty three   0D 0A

3.2.9. Set up **Gen2 parameters**

Data: Session, Q, Coding and
other settings
Function: gen2 parameters.

Set command frame gen2

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0x00	0x10	0x20	DByte7	DByte6	DByte5
data					BCCcode	End of frame	
DByte4	DByte3	DByte2	DByte1	DByte0	0xxx	0x0D	0x0A

Description: Data Members are defined in the following table

Data Definition Description

DByte7				DByte6		DByte5				DByte4			
Target	Action	T	Q	StartQ	MinQ	MaxQ	D	C	P	Sel	Ses	G	LF
x x x	x x x	x	x	x x x x	x x x x	x x x x	x	x	x	x x	x x	x	x x
DByte3				DByte2		DByte1				Dbyte0			
Reserve													

1,Target setting: select command Target parameters

S0	B'000
S1	B'001
S2	B'010
S3	B'011
SL	B'100

2,Action settings: select parameters command Action

Action	Matching	Non-Matching
000	assert SL or inventoried → A	de-assert SL or inventoried → B
001	assert SL or inventoried → A	do nothing
010	do nothing	de-assert SL or inventoried → B
011	negate SL or (A → B, B → A)	do nothing
100	de-assert SL or inventoried → B	de-assert SL or inventoried → A
101	de-assert SL or inventoried → B	do nothing
110	do nothing	de-assert SL or inventoried → A
111	do nothing	negate SL or (A → B, B → A)

3,T Set: select Truncate command parameters

Disable truncation	B'0
Enable truncation	B'1

4,Q Setting:

Static Q	B'0
Q dynamic	B'1

5,StartQ settings:

0	B'0000	4	B'0100	8	B'1000	12	B'1100
1	B'0001	5	B'0101	9	B'1001	13	B'1101
2	B'0010	6	B'0110	10	B'1010	14	B'1110
3	B'0011	7	B'0111	11	B'1011	15	B'1111

6,MinQ settings:

0	B'0000	4	B'0100	8	B'1000	12	B'1100
1	B'0001	5	B'0101	9	B'1001	13	B'1101
2	B'0010	6	B'0110	10	B'1010	14	B'1110
3	B'0011	7	B'0111	11	B'1011	15	B'1111

7,MaxQ settings:

0	B'0000	4	B'0100	8	B'1000	12	B'1100
1	B'0001	5	B'0101	9	B'1001	13	B'1101
2	B'0010	6	B'0110	10	B'1010	14	B'1110
3	B'0011	7	B'0111	11	B'1011	15	B'1111

8,Set D: DR parameter query command

8	B'0
64/3	B'1

9,Coding Set: M parameter query command

FM0	B'00
Miller2	B'01
Miller4	B'10
Miller8	B'11

10,Set P: query command parameters TRext

No pilot	B'0
Use pilot	B'1

11,sel Setting: query command parameters sel

All	B'00
All	B'01
~ SL	B'10
SL	B'11

12,ses Setting: query command session parameters

S0	B'00
S1	B'01
S2	B'10
S3	B'11

13,Set G: Target parameter query command

A	B'0
B	B'1

14, LF Set up(Reserved).

example:Target Set as S1;Action for B'000;Truncate Parameters
Disable Truncate;dynamicQ algorithm;startQ for 4;minQ for 0;maxQ for
15;DR forDR = 64/3;M Parameters Miller4;TRext ParametersUse pilot;sel
Parameters for the ALL;Session Parameters S1;Target Parameters A.
command:

C8 8C 00 10 20 21 40 FD 53 00 00 00 00 FF 0D 0A

3.2.10. Set up Gen2 response parameters

Data: Set success: 0x01; setup
failed: 0x00
Function: gen2 parameters.

Gen2 parameter setting response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x21	Ok: 0x01 fail: 0x00	0xxx	0x0D

End of
0x0A

Description: None

Example: Set gen2 Parameters success
command:C88C 00 09 twenty one 01 29 0D   0A

3.2.11. Get the current **Gen2 parameter settings**

Data: None
Function: Get Device gen2 parameter settings.

Get the current parameters command frame gen2

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x08	0x22	no	0x2A	0x0D

End of
0x0A

Description: None

Example: Gets the current device gen2 parameter settings
command:C8 8C 00 08 twenty two   2A   0D   0A

3.2.12. Get the current **Gen2 parameter setting response**

Data: Session, Q, Coding and
other settings
Function: Get Device **Gen2 parameter settings.**

Get the current Gen2 parameter response frame

Header		Frame length		Type CMD	data		
0xC8	0x8C	0x00	0x10	0x23	DByte7	DByte6	DByte5
data					BCCcode	End of frame	
DByte4	DByte3	DByte2	DByte1	DByte0	0xxx	0x0D	0x0A

Note: Data for your Gen2 parameter settings as defined in 3.2.9.

example:Target Set as S1;Action for B'000;Truncate Parameters Disable Truncate;dynamicQ algorithm;startQ for 4;minQ for 0;maxQ for 15;DR forDR = 64/3;M Parameters Miller4;TRext ParametersUse pilot;sel Parameters for the ALL;Session Parameters S1;Target Parameters A.

command:C8 8C 00 10 23 21 40 FD 53 00 00 00 00 FC 0D 0A

3.2.13. CW Setting

Data: open CW: 0x01; Off CW: 0x00
Functions: opening or closing a continuous wave.

CW Set Command Frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x24	Open: 0x01	0xxx	0x0D
End of							
0x0A							

Description: None

Example: open CW
command:C88C 00 09 twenty four 01 2C 0D   0A

3.2.14. CW Setting the answer

Data: Set success: 0x01; setup
failed: 0x00
Function: turn on or off a continuous wave response.

CW setting response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x25	ok: 0x01 fail: 0x00	0xxx	0x0D

End of
0x0A

Description: None

Example: Set success
command:C88C 00 09 25 01 2D 0D 0A

3.2.15. Get the current equipment CW Setting

Data: None
Function: Gets the current state of the device CW

Gets the current device parameters CW command frame

Header		Frame length		Frame	data	Check	End of
0xC8	0x8C	0x00	0x08	0x26	no	0x2E	0x0D

End of
0x0A

Description: None

Example: Gets the current device CW Set up
command:C88C 00 08 26 2E 0D 0A

3.2.16. Get the current equipment **CW Setting the answer**

Data: CW open: 0x01; CW OFF:
0x00
Function: Gets the current device CW status.

Gets the current device parameters CW response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x27	Open: 0x01	0xxx	0x0D

End of
0x0A

Description: None

example:CW In the open state
command:C88C 00 09 27 01 2F 0D 0A

3.2.17. Antenna Set

Data: total of 3 bytes, DByte2 whether the power-down save bytes;
DByte1 and DByte0 bytes each corresponding to a common
antenna 16, this bit is 1, chosen to correspond to the
antenna, the bit is 0, the corresponding deselection antenna.
After the antenna is selected when the inventory tag antenna
is automatically selected in rotation.

Function: a single-port module default antenna, the other antenna is
provided is not valid.

Command frame antenna arrangement

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0x00	0x0B	0x28	DByte2	DByte1	DByte0

BCCcode	End of frame	
0xxx	0x0D	0x0A

Description: Dbyte2 = 0x01, an antenna power-down save set, Dbyte2 =
0x00, indicates power-down is not saved settings.

Data bit is defined as follows:

The antenna defined set of data bits

DByte1

Ant16	Ant15	Ant14	Ant13	Ant12	Ant11	Ant10	Ant9
DByte0							
Ant8	Ant7	Ant6	Ant5	Ant4	Ant3	Ant2	Ant1

Example: selecting the second antenna 14 and the antenna number is provided power-down save

command:C8 8C   00   0B   28   01   20   02   01   0D   0A

3.2.18. Setting the answer antenna

Data: Set success: 0x01; setup
failed: 0x00
Function: the antenna arrangement apparatus used

Antenna setting response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x29	ok: 0x01 fail: 0x00	0xxx	0x0D
End of							
0x0A							

Description: None

Example: Set success
command:C88C   00   09   29   01   twenty one   0D   0A

3.2.19. Get the current antenna device settings

Data: None
Function: Get an antenna number for your device

Get command frame antenna arrangement

Header		Frame length		Type CMD	data	BCCcode	End of
0xC8	0x8C	0x00	0x08	0x2a	no	0x22	0x0D
End of							
0x0A							

Description: None

Example: Get current device antenna arrangement
command:C88C   00   08   2a   twenty two   0D   0A

3.2.20. Get the current antenna set the answering device

Data: total of 2 bytes, 16 bits, each bit corresponding to one antenna, the bit is 1, the corresponding antenna is selected, the bit is 0, the corresponding antenna is not selected.
Function: Get an antenna number for your device.

Gets antenna setting response frame

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x2b	DByte1	DByte0	0xxx
End of frame							
0x0D	0x0A						

Data bits are defined in Table:

The antenna defined set of data bits

DByte1							
Ant16	Ant15	Ant14	Ant13	Ant12	Ant11	Ant10	Ant9
DByte0							
Ant8	Ant7	Ant6	Ant5	Ant4	Ant3	Ant2	Ant1

Example: Current 1 No. antenna, the first 5 No. antenna, the first 10 No. antenna and 14 No. antenna was ordered: C8 8C 00 0A 2b   twenty two   11 12 0D 0A

3.2.21. Band locale

Data: 2 bytes
Function: Set the area.

Locale command frame

Header		Frame length		Type CMD	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x2c	Save Settings	DByte0	0xxx
End of frame							
0x0D	0x0A						

Description: Save flag 0:00, do not save the settings, save set to 1, the default is the current region during the next boot. Data bits are defined in Table DByte0

China1 (840MHz-845MHz)	0x01
China2 (920MHz-925MHz)	0x02
Europe (865MHz-868MHz)	0x04
USA (902MHz-928MHz)	0x08
Korea (917MHz-923MHz)	0x16
Japan (952MHz-953MHz)	0x32

Example: save the settings, set area USA
command:C8 8C 00 0A 2C 01 08 2F 0D 0A

3.2.22. Band locale response

Data: Set success: 0x01; setup
failed: 0x00
Function: Set the area

Locale response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x2D	Ok: 0x01 fail: 0x00	0xxx	0x0D

End of
0x0A

Description: None

Example: Set success
command:C88C 00 09 2D 01 25 0D 0A

3.2.23. Gets band area

Data: None
Function: Get the equipment locale

Acquisition area setting command frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x08	0x2E	no	0x26	0x0D

End of
0x0A

Description: None

Example: Get Locale
command:C88C 00 08 2E 26 0D 0A

3.2.24. Gets the locale band response

Data: 2 bytes
Function: Get the equipment locale

Gets the locale response frame

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x2f	Ok: 0x01 fail: 0x00	DByte0	0xxx

End of frame	
0x0D	0x0A

Description: Data bits are defined in Table

China1	0x01
China2	0x02
Europe	0x04
USA	0x08
Korea	0x16
Japan	0x32

Example: current device locale China2
command:C88C 00 0A 01 2F 02 26 0D 0A

3.2.25. Provided inventory data area

Data: AP to access password
MMB data area to be inventoried and combinations
MSA is the inventory data area start address(USERAreaeffective unitFor the word)
MDL is the length of visit(USERAreaeffectiveunitFor the word)

Header		Frame length		Type CMD	data		
0xC8	0x8C	0xxx	0xxx	0x30	AP (MSB)	AP	AP

data						BCCcode	frametail
AP (LSB)	MMB	MSA (MSB)	MSA (LSB)	MDL (MSB)	MDL (LSB)	0xxx	0x0D

frametail
0x0A

Explanation: MMB is defined as follows:

0x01	EPC
0x02	TID
0x03	USER
0x04	Reversed
0x05	EPC + TID
0x06	EPC + USER
0x07	EPC +TID +USER

Set upThe correspondingdataAfter the district,inventoryThe inventory data area corresponding to the label.

3.2.26. Set inventory data area response

Set response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x31	Ok: 0x01 fail: 0x00	0xxx	0x0D
End of							
0x0A							

Description: None

Example: Set success
command:C88C 00 09 31 01 0xxx 0D 0A

3.2.27. Get Device current temperature

Data: None
Function: Get the current temperature of the device, the maximum error of the temperature and the actual temperature values is ± 3 ℃.

Get Device current temperature

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x08	0x34	no	0x3C	0x0D
End of							

0x0A

Description: None

Example: temperature acquiring device
command:C8 8C 00 08 34 3C 0D 0A

3.2.28. Get the current temperature-responsive device

Data: Get the flag, 0x01 success, 0x00 failure. Temperature × 100, 2 bytes, unit ℃
Function: Gets the current device temperature response.

A current acquisition device temperature response frame

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0x00	0x0B	0x35	Ok: 0x01 fail: 0x00	temperature	temperature

BCCcode	End of frame	
0xxx	0x0D	0x0A

Description: temperature × 100, converted to hexadecimal, then take a negative complement

Examples: succeed, the temperature of the devicetwenty two℃
command:C8 8C 00 0b 35 01 08 98 af 0d 0a

3.2.29. Setting the temperature protection value

Data: 1 byte, the range of 50 ℃ -75 ℃, other value is invalid.
Function: Set the temperature protection options.

Setting the temperature protection

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x38	Data0	0xXX	0x0D

End of	
0x0A	

Description:whenModulecontinuousjobsHot,Temperature reaches the setWhen the valueWill intervals readerWithmaintainModuleSetting a temperature in the range of values.

Example: SetTemperature protectionIs 75 ℃
command:C8 8C 00 09 38 4B 7A 0D 0A

3.2.30. Setting the temperature protection value of the response

Data: Set symbol of success, 0x01 success, 0x00 failure.
Function: Set the temperature protection response.

Setting the temperature protection response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x39	Ok: 0x01 fail: 0x00	0xxx	0x0D

End of
0x0A

Description: None
Example: Set success
Command: C8 8C 00 09 39 01   31 0D 0A

3.2.31. Gets temperature protection value

Data: None
Function: Gets temperature protection settings.

Gets temperature protection settings

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x08	0x3A	no	0x32	0x0D

End of
0x0A

Description:no

Example: obtaining temperature protection is provided
command:C8 8C 00 08 3A 32 0D 0A

3.2.32. Gets temperature protection value response

Data: Get the success flag, 0x01 success, 0x00 failure.
Function: Gets the value of temperature protection response.

Get response frame set temperature protection

Header		Frame length		Type CMD	data		BCCcode

0xC8	0x8C	0x00	0x0A	0x3B	Ok: 0x01 fail: 0x00	Data0	0xxx

End of frame	
0x0D	0x0A

0xC8	0x8C	0x00	0x0A	0x3B	Ok: 0x01 fail: 0x00	Data0	0xxx

Description: Data0,forTemperature values

Example: to succeed,temperatureValue75 ℃
command:C8 8C   00   0A   3B   01   4B   7B   0D   0A

3.2.33. An antenna working hours

Data: Byte 3
Function: Set the antenna working hours

An antenna working hours

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0x00	0x0B	0x4A	DByte2	DByte1	DByte0
BCCcode		End of frame					
0xxx	0x0D	0x0A					

Description: Low 4bit DByte2 of (bit0-bit3) an antenna number in the range 1-16, DByte2 of
bit4 indicates whether the power-down save, 0 to not save and 1 for power-down save. DByte1 DByte0 work and time, a total of 16 milliseconds, the range of 10ms ~ 65535ms. Note that the single antenna module, only an antenna 1, a multi-antenna module only supports setting other antennas.

Example: an antenna 3 Working hours 300ms, Power-down save settings. command:C8 8C   00   0B   4A   13
        01   2C   7F   0D   0A

3.2.34. An antenna working time response

Data: the success flag, 0x01 success,
0x00 failure.
Function: Set the antenna working time response

An antenna working time response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x4B	Ok: 0x01 fail: 0x00	0xxx	0x0D
End of							
0x0A							

Example: Operation Success
command:C8 8C   00   09   4B   01   43   0D   0A

3.2.35. Gets antenna working hours

Data: 2 bytes
Function: Get an antenna working hours.

Gets antenna working hours

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x4C	Ant num	Rev	0xxx
End of frame							
0x0D	0x0A						

Description: ant num represents the antenna number.

Example: Get Antenna 1 hours
command:C8 8C 00 0A 4C 01 00 47 0D 0A

3.2.36. Obtain an antenna response time

data:Four bytes.
Function: Get an antenna response time

Obtain an antenna response time frame

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0x00	0x0C	0x4D	Ok: 0x01 fail: 0x00	ant num	DByte1
data	BCCcode	End of frame					
DByte0	0xxx	0x0D	0x0A				

Description: ant num denotes an antenna number, DByte1 DByte0 indicate corresponding antenna and working time.
Note: Single-antenna module, antenna can only get 1, multi-antenna modules only support for additional antennas.

Example: Get the antenna 2 The working time is successful, antenna 2 Working hours 400ms
command:C8 8C 00 0C 4D 01 02 01 90 D3 0D 0A

3.2.37. Recommended settings **RF links combination**

data:Three bytes.
Function: Set Recommended RF link combination.

Recommended combinations of RF link provided

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0x00	0x0B	0x52	Rev	DByte1	DByte0

BCCcode	End of frame	
0xxx	0x0D	0x0A

Description: DByte1 is 1, power-down save set to 0, no power-down save the settings. DByte0 arrangement shown in the following table (the default is 0x01, the best performance is provided).

DByte0	combination
0x00	DSB_ASK / FM0 / 40 KHz
0x01	PR _ASK / Miller4 / 250KHz
0x02	PR _ASK / Miller4 / 300KHz
0x03	DSB_ASK / FM0 / 400KHz
other	invalid

Example: Set RF Link combination DSB_ASK / FM0 / 40 KHz, Power-down does not save. command:C8 8C 00 0B 52   00   00 00 59 0D 0A

3.2.38. Recommended settings **RF transponder combination of links**

Data: the success flag, 0x01 success, 0x00 failure.
Function: Set Recommended RF link response combination.

Recommended settings RF Link response frame combination

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x53	Ok: 0x01 fail: 0x00	0xxx	0x0D

End of
0x0A

Example: Set success
command:C8 8C 00 09 53 01 5B 0D 0A

3.2.39. Get recommended **RF link provided in combination**

data:2 bytes.
Function: Get recommended RF link provided in combination.

Get recommended setting combination of RF link

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x54	Rev	Rev	0xxx
End of frame							
0x0D	0x0A						

Description: None.

Example: acquiring an RF link provided in combination Recommended
command:C88C 00 0A 54 00 00 5E 0D 0A

3.2.40. Get recommended **Response RF link provided in combination**

data:Three bytes.
Function: Get recommended a combination of RF link setting response.

Get recommended RF Link setting response frame combination

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0x00	0x0B	0x55	Ok: 0x01 fail: 0x00	Rev	DByte0
BCCcode	End of frame						
0xxx	0x0D	0x0A					

Description: Sets the DByte0 shown in the table below

DByte0	combination
0x00	DSB_ASK / FM0 / 40 KHz
0x01	PR _ASK / Miller4 / 250KHz
0x02	PR _ASK / Miller4 / 300KHz
0x03	DSB_ASK / FM0 / 400KHz
other	invalid

Example: The current recommendation RF Link combination DSB_ASK /
FM0 / 400KHz
command:C88C 00 0B 55 01 00 03 58 0D 0A

3.2.41. Set up **FastID function**

data:2 bytes.
Feature: open or closed FastID function.

Set FastID

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x5C	ON: 1 OFF: 0	Rev	0xxx

End of frame	
0x0D	0x0A

Description: On: 0x01, closed: 0x00.

Example: open FastID Features.
command:C8 8C 00 0A 5C 01 00 57 0D 0A

3.2.42. Set up **Answer the FastID**

Data: a byte.
Function: FastID function response.

Set FastID response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x5D	Ok: 0x01 fail: 0x00	0xxx	0x0D

End of
0x0A

Example: Set success
command:C8 8C 00 09 5D 01 55 0D 0A

3.2.43. Obtain **FastID functional status**

Data: 2 bytes
Function: Gets the current reader FastID state, is turned on.

Get FastID state

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x5E	Rev	Rev	0xxx

End of frame	
0x0D	0x0A

Description: None.

Example: Get FastID status.

command:C88C　00　0A　5E　00　00　54　0D　0A

3.2.44. Obtain **FastID functional status response**

Data: two bytes.
Function: Get FastID state response.

Get FastID state response frame

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x5F	OK: 1 Fail: 0	ON: 1 OFF: 0	0xxx
End of frame							
0x0D	0x0A						

Example: to succeed, the current FastID Function is enabled by state

command:C8 8C　00　0A　5F　01　01　55　0D　0A

3.2.45. Set **Tagfocus Features**

Data: 2 bytes
Feature: open or closed TagFocus Features.

Set TagFocus

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x60	ON: 1 OFF: 0	Rev	0xxx
End of frame							
0x0D	0x0A						

Description: On: 0x01, closed: 0x00.

Example: open TagFocus Features.

command:C8 8C　00　0A　60　01　00　6B　0D　0A

3.2.46. Set TagFocus **Answer the**

Data: a byte.
Function: Set TagFocus Function response.

Set TagFocus response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x61	Ok: 0x01 fail: 0x00	0xxx	0x0D

End of
0x0A

Example: Set success
command:C8 8C 00 09 61 01 69 0D 0A

3.2.47. Get TagFocus **Functional status**

Data: 2 bytes.
Function: Gets the current reader TagFocus state, is turned on.

Get TagFocus state

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x62	Rev	Rev	0xxx

End of frame	
0x0D	0x0A

Description: None.

Example: Get TagFocus status.
command:C8 8C 00 0A 62 00 00 68 0D 0A

3.2.48. Get TagFocus **Functional status response**

Data: two bytes.
Function: Get FastID state response.

Get TagFocus state response frame

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x63	OK: 1 Fail: 0	ON: 1 OFF: 0	0xxx

End of frame	
0x0D	0x0A

Example: to succeed, the current TagFocus Function is enabled by state

command:C8 8C 00 0A 63 01 01 69 0D 0A

3.2.49. Software reset

Data: Byte 0

Function: software reset module.

Software reset

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x08	0x68	no	0x60	0x0D
End of							
0x0A							

Description: send a software reset command, you can reset the reader.

Example: sending software reset command.

command:C8 8C 00 08 68 60 0D 0A

3.2.50. Software reset response

data:A byte.

Function: software reset response.

Software reset response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x69	OK: 1 Fail: 0	0xxx	0x0D
End of							
0x0A							

Description: None.

Example: a successful reset.

command:C8 8C 00 09 69 01 61 0D 0A

3.2.51. Look for the label filter settings

data:n bytes.

Function: to find a label with a range tag group selection.

Look for the label filter settings

Header	Frame length	CMDTypes	data

48

0xC8	0x8C	0x00	0xxx	0x6E	DByte0	MMB	MSA (MSB)
data							
MSA (LSB)	MDL (MSB)	MDL (LSB)	MData (MSB)	...	...	...	MData (LSB)
BCCcode	End of frame						
0xxx	0x0D	0x0A					

Description: DByte0: 0x01 indicates power-down setting values are saved, not saved to 0x00 represents;

MMB : Filtering operationbank number, 0x01 represents EPC, 0x02 represents TID, 0x03 represents USR, another value is an invalid value;

MSA : Starting address Start filtering operation, the unit isbit;

MDL : Filtering operation starts filtering data length, inbit, 0x00 indicates no filter; MData: Start filtering data, in bytes, ifMDL is less than an integral multiple of bytes, less than the low order bits 0s.

example 1: Set Hunt tag filtering rules:TID District filtration, filter address TID Zone 0bit, Filter length 96bit, Filtered data 0xE2003414013301001038D2B5, Power-down save the filter settings.

command:C8 8C   00   1A   6E   01   02   00   00   00   60   E2   00   34   14   01   33   01   00   10   38   D2   B5 A9   0D 0A

Example 2: Set Hunt Tags filtering rules: no filters, power-down save the filter settings.

command:C8 8C   00   0E   6E   01   00   00   00   00   00   61   0D   0A

3.2.52. Find answer label filter settings

data:A byte.

Function: label filtering settings to find a response.

Searching tag response frame filter settings

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x6F	OK: 1 Fail: 0	0xxx	0x0D

End of
0x0A

Description: None.

Example: Set success

command:C8 8C 00 09 6F 01 67 0D 0A

3.2.53. EPC+TIDOr EPC + USER Mode setting

Data: 4 bytes

Function: Enables simultaneous reading EPC + TIDorEPC + TID + USER mode when the reader during continuous searching tag, the tag will be read simultaneously EPC + TIDorEPC + USER data.

Mode setting

Header		framelength		Type CMD	data		
0xC8	0x8C	0x00	0x0C	0x70	Dbyte0	Memory	Adress

data	BCCcode	End of frame	
Lenth	0xxx	0x0D	0x0A

Description: Dbyte0: 0x01 indicates power-down setting values are saved, not saved to 0x00 represents;

Memory: Is 0x00, indicating that close; 0x01, indicate on EPC + TID mode(silentIdentified address 0x00, a length of 6 characters); 0x02, indicate onEPC + TID + USER mode

Adress: For the USER areaStarting address(unitFor the word).

Lenth :forUSER areaofLength (UnitFor the word).

3.2.54. EPC+TIDOr EPC +TID +USER Setting the answer mode

Data: 4 bytes.

Function: read simultaneously EPC + TID or EPC + TID + USER mode setting response.

Mode setting response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x71	OK: 1 Fail: 0	0xxx	0x0D

End of
0x0A

Description: None.

Example: Set success

command:C8 8C 00 09 71 01 79 0D 0A

3.2.55. Read **EPC+TIDOr EPC +TID +USER** Mode status

Data: 2 bytes

Function: Gets the current reader simultaneously reads EPC + TID or EPC + TID + USER mode set state, it is turned on.

Reading mode set state

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x72	Rev	Rev	0xxx

End of frame	
0x0D	0x0A

Description: None.

Example: acquiring read simultaneously EPC + TIDOr EPC + TID + USER mode set state.

command:C8 8C 00 0A 72 00 00 78 0D 0A

3.2.56. Read **EPC+TIDOr EPC +TID +USER** Answer mode status

Data: 4 bytes.

Function: Get simultaneously read EPC+TIDOr EPC +TID +USER Mode setting state response.

Acquisition mode set state response frame

Header		framelength		Type CMD	data		
0xC8	0x8C	0x00	0x0C	0x73	OK: 1 Fail: 0	Memory	Adress

data	BCCcode	End of frame	
Lenth	0xxx	0x0D	0x0A

3.2.57. reset

Data: Byte 0
Function: restore factory settings.

reset

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x08	0x74	no	0x7C	0x0D

End of
0x0A

Description: send commands to restore factory settings, you can restore the settings of the reader, restore factory settings successfully, the reader will automatically reset. After this command is executed, the set value may vary as follows:

Settings	Restore factory settings value	Remark
Transmission power	30dBm	
Temperature	Open	
Recommended	PR _ASK / Miller4 / 250KHz	
Buzzer state	Not ringing	
FastID function	shut down	
TagFocus function	shut down	
Module baud rate	115200	
Look for the label	Filtered data length = 0	Do not enable filtering
While readingEPC and TID mode	shut down	

Example: send the command to restore the factory settings.
command:C8 8C 00 08 74 7C 0D 0A

3.2.58. Factory Reset response

data:A byte.
Function: restore factory settings response.

Factory Reset response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x75	OK: 1 Fail: 0	0xxx	0x0D

End of
0x0A

Description: None.

Example: restore factory settings successfully.
command:C8 8C   00 09 75 01 7D 0D 0A

3.3. Label operation

3.3.1. Single inventory tags

Data: Timeou (t endian), timeout, milliseconds, or if the card has successfully find
Timeout
Time to, RFID module must return a response frame.
Function: to find the label, if find a label, returns only one
label.

Single inventory label command frame

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x80	Timeout (MSB)	Timeout (LSB)	0xxx

End of frame	
0x0D	0x0A

Description: None

Example: look for labels
command:C8 8C   00 0A 80 00 64 EE 0D 0A

3.3.2. Single label inventory response

Data: PC + EPC, RSSI.
Function: label inventory response, the tag and reader-related information return.

Single label inventory response frame

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0x00	0xxx	0x81	PC (MSB)	PC (LSB)	EPC (MSB)
data							
EPC	EPC	EPC	EPC	EPC	EPC	EPC	EPC
data						BCCcode	End of f
EPC	EPC	EPC (LSB)	RSSI (MSB)	RSSI (LSB)	Ant Num	0xxx	0x0D
End of f							
0x0A							

Description: RSSI represented as a complement, a total 16bit, the actual value × 10. As -65.7dBm, the

RSSI = FD6F.

Note: The length of the EPC decided to have PC, this is based on the Gen2 protocol, so frame length is not fixed. After FastID function is enabled, attempting to read the label TID data, the EPC (LSB) response frame will increase the TID 96bit data, and is the RSSI value.

Example: Label   PC =
0x3000 , EPC = 0xE2003411B802011383258566   Response,
RSSI = -65.7dBm, antenna 2 To inventory.
command:C8 8C 00 19 81 30 00 E2 00 34 11 B8 02 01 13
83 25 85 66 FD 6F 02 12 0D 0A

3.3.3. Continuous inventory labels

Data: continuous inventory tag number, a total of two sections.
Features: continuous inventory labels.

Continuous inventory tag command frame

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x82	Num [1]	Num [0]	0xxx
End of frame							

0x0D	0x0A	

Description: Continuous inventory tag number range1 ~ 0xFFFF, the number is 0, an unlimited number of inventory tags.

Example: the number of continuous inventory tag10000 (0x2710)Secondary
command:C8 8C 00 0A 82 27 10 BF 0D 0A

3.3.4. Continuous label inventory response

Data: PC + EPC, RSSI,
antenna number.
Function: label inventory response, the tag and reader-related information return.

Continuous label inventory response frame

Header				CMDTypes	data		
0xC8	0x8C	0x00	0xxx	0x83	PC (MSB)	PC (LSB)	EPC (MSB)
data							
EPC	EPC	EPC	EPC	EPC	EPC	EPC	EPC
data						BCCcode	End of
EPC	EPC	EPC (LSB)	RSSI (MSB)	RSSI (LSB)	Ant Num	0xxx	0x0D
End of							
0x0A							

Description: RSSI represented as a complement, a total 16bit, the actual value × 10. As -65.7dBm, the
RSSI = FD6F.

Note: The length of the EPC decided to have PC, this is based on the Gen2 protocol, so frame length is not fixed. in FastID functionOr TID or the EPC + EPC + USER function is enabled, if the read tagTID data, the EPC (LSB) response frame will increase the TID USER data area or region, and only thenRSSI value.

Example: Label   PC = 0x3000 , EPC = 0xE2003411B802011383258566   Response, RSSI = -65.7dBm,antenna 2 To inventory.
command:C8 8C 00 19 83 30 00 E2 00 34 11 B8 02 01 13

83　25　85　66　FD　6F　02　10　0D　0A

3.3.5. Stop continuous inventory labels

Data: None
Function: stop the continuous inventory labels.

Stop the continuous inventory label command

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x08	0x8C	no	0x84	0x0D
End of							
0x0A							

Example: stop continuous inventory tag
command:C88C　00　08　8C　84　0D　0A

3.3.6. Stop the continuous label inventory response

Data: flags flag: success: 0x01; failure: 0x00
Function: stop the continuous label inventory response

Stop the continuous label inventory response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x8D	Flag	0xxx	0x0D
End of							
0x0A							

Description: None

Example: Success
command:C8　　8C　00　09　8D　01　85　　0D 0A

3.3.7. Read the label data area

　Data: AP (access code), MMB, MSA, MDL, MData, memory Bank, SA start address (words), the data length DL is to be read (word units).Word length of 2 bytes.

Function: data read tag specified data area.

Read Data command frame

Header		Frame length		Type CMD	data		
0xC8	0x8C	0xxx	0xxx	0x84	AP (MSB)	AP	AP

data							
AP (LSB)	MMB	MSA (MSB)	MSA (LSB)	MDL (MSB)	MDL (LSB)	MData (MSB)	MData

data							
MData	...	...	...	...	MData	MData (LSB)	MB

data				BCCcode	End of frame		
SA (MSB)	SA (LSB)	DL (MSB)	DL (LSB)	0xxx	0x0D	0x0A	

Description:

AP:4Byte access password

MMB: Mask of the data area(0x00for Reserve 0x01 forEPC, 0x02 represents the TID, 0x03 represents USR).

MSA: To mask the address.

MDL: Length mask.

Mdata: To mask data.

MB: To write data area(0x00for Reserve 0x01 forEPC, 0x02 represents the TID, 0x03 represents USR).

SA :forToAddress write data area.

DL :Length of data to be written(Word units).

Data : To write data, the previous high.

Example 1: No filtering, the read data word TID area 3, the starting address is 2, access password 0x55555555

command:C8 8C 00 16 84 55 55 55 55 00 00 00 00 00 02 00 02 00 03 91 0D 0A

example 2:TID District filtration, filter address TID Zone 2bit, Filter length 13bit, Filtered data 1110001000000'bRead EPC Area 6 Data word, the starting address is 2Access password0x00000000

command:C8 8C 00 18 84 00 00 00 00 02 00 02 00 0D E2 00 01 00 02 00 06 76 0D 0A

3.3.8. Read label data area response

Data: Flag: Flag read data is successful, success: 0x01; failure: 0x00

Errflag: error flag, After the failure of the error flag returned

DL: readingThe length of the data unit is a word

Data:readData
Function: read data return.

Read data response frame

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0xxx	0xxx	0x85	Flag	Errflag	DL (MSB)
data					Check	End of frame	
DL (LSB)	Data (MSB)	...	...	Data (LSB)	0xxx	0x0D	0x0A

Description: Reads data Data read data is determined by the length of the command data, in addition, read data is fail, then no response frame data Data; read data, the error flag Errflag to 0x00. Read operation fails,
ErrFlag prompt type of failure, ErrFlag of 1, indicating no label; ErrFlag is 2, represents an access password is wrong; ErrFlag 3, showing Read operation failed.

Example: Successful read TID Area 3 Words of data:0x123456789ABC

command:C8 8C 00 12 85 01 00 00 03 12 34 56 78 9A BC BB 0D 0A

3.3.9. Write tag data area

Function: the data into the specified storage area.

Write Data command frame

Header		Frame length		Type CMD	data		
0xC8	0x8C	0xxx	0xxx	0x86	AP (MSB)	AP	AP
data							
AP (LSB)	MMB	MSA (MSB)	MSA (LSB)	MDL (MSB)	MDL (LSB)	MData (MSB)	MData
data							
MData	...	...	...	...	MData	MData (LSB)	MB
data							
SA (MSB)	SA (LSB)	DL (MSB)	DL (LSB)	Data (MSB)	...	...	Data (LSB)
BCCcode	End of frame						
0xxx	0x0D	0x0A					

AP:4Byte access password

MMB: Mask of the data area(0x00for Reserve 0x01 forEPC, 0x02 represents the TID, 0x03 represents USR).

MSA: To mask the address.

MDL: Length mask.

Mdata: To mask data.

MB: To write data area(0x00for Reserve 0x01 forEPC, 0x02 represents the TID, 0x03 represents USR).

SA :forToAddress write data area.

DL :Length of data to be written(Word units).

Data : To write data, the previous high.

example 1: Do not filter, write EPC Area 6 Words of data,Data = 0x00112233445566778899 aabbStarting at address 2Access password 0x12345678

command:C8 8C 00 twenty two 86 12 34 56 78 00 00 00 00 00 01

00 02 00 06 00 11 twenty two 33 44 55 66 77 88 99 AA BB A9

0D 0A

example 2:TID District filtration, filter address TID Zone 0bit, Filter length 96bit, Filtered data 0xE2003414013301001038D2B5Write EPC Area 6 Words of data,Data = 0x00112233

445566778899aabbStarting at address 2Access password 0x00000000

command:C8 8C 00 2E 86 00 00 00 00 02 00 00 00 60 E2

00 34 14 01 33 01 00 10 38 D2 B5 01 00 02 00 06 00

11 twenty two 33 44 55 66 77 88 99 AA BB 71 0D 0A

3.3.10. Write data area response

Data: Flag: write data is successful sign, success: 0x01; failure: 0x00

Errflag: error flagError flag returned after a failed write

Function: write data response

Write data response frame

Header		Frame length		Type CMD	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x87	Flag	Errflag	0xxx
End of frame							
0x0D	0x0A						

Description: write data, the error flag **Errflag** to 0x00. Write operation failed,ErrFlag prompt type of failure, ErrFlag of 1, indicating no label; ErrFlag is 2, represents an access password is wrong; ErrFlag 3, showing Write operation failed.

Example: Data write failure, the error flag is 0x03
command:C8 8C 00 0A 87 00 03 8E 0D 0A

3.3.11. Locklabel

Data: AP (access code), MMB, MSA, MDL, MData, LD (3 bytes total)
Function: Lock memory bank labels

lock tag command frame

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0x00	0xxx	0x88	AP (MSB)	AP	AP
data							
AP (LSB)	MMB	MSA (MSB)	MSA (LSB)	MDL (MSB)	MDL (LSB)	MData (MSB)	MData
data							
MData	...	...	...	...	MData	MData (LSB)	LD (MSB)
data		BCCcode	End of frame				
LD	LD (LSB)	0xxx	0x0D	0x0A			

Description:
AP:4Bytelock password
MMB: Mask of the data area(0x00for Reserve 0x01 forEPC, 0x02 represents the TID, 0x03 represents USR).
MSA: To mask the address.
MDL: Length mask.
Mdata: To mask data.
LD: 24bit total of 3 bytes, wherein the high 4bit invalid, the first 0 ~ 9bit (co 10bit) Action of bits, the first 10 ~ 19bit (co 10bit) of mask bits,For details, seeISO18000-6C protocol manual.

Example: filtering region TID, TID Zone address filtering 0bit filtered 96bit length, filtering data 0xE2003414013301001038D2B5, EPC + RFU locking zone (LD = 0x0FC2A0), access password 0x760039AD

Command: C8 8C   002 088   76   00   39   AD   02   00   00   00   60   E2

0034   140133   01   00   10   38   D2   B5   0F   C2   A0   FB   0D   0A

3.3.12. LockTag replies

Data: Lock label success symbol flag: success: 0x01; failure: 0x00
        Error flag Errflag: error flag returned
after the failure of the lock tag
Function: Lock labels response.

Lock tag response frame

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x89	Flag	Errflag	0xxx
End of frame							
0x0D	0x0A						

Description: Lock operation is successful, the error flagErrflag to
0x00. Lock operation fails, Errflag prompt type of failure, Errflag of 1, indicating no
label; Errflag 2, represents an access password is wrong; Errflag 3, represents the
Lock operation failed.

Example: Lock success
command:C8 8C 00 0A 89 01 00 82 0D 0A

3.3.13. Kill label

Data: KP (kill password), MMB, MSA, MDL,
MData
Function: kill tag

kill command frame label

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0x00	0xxx	0x8A	KP (MSB)	KP	KP
data							
KP (LSB)	MMB	MSA (MSB)	MSA (LSB)	MDL (MSB)	MDL (LSB)	MData (MSB)	MData
data							BCC code
MData	...	...	...	...	MData	MData (LSB)	0xxx
End of frame							
0x0D	0x0A						

Description:

KP:4KILL-byte password

MMB: Mask of the data area(0x00for Reserve 0x01 forEPC, 0x02 represents the TID, 0x03 represents USR).

MSA: To mask the address.

MDL: Length mask.

Mdata: To mask data.

When the label 0x00000000 value is KillPwd zone, the label ignores the kill command, kill command will not succeed

example:EPC District filtration, filter address EPC Zone 32bit, Filter length 96bit, Filtered data 0x00112233445566778899AABB,kill Password 0x760039AD

command:C8 8C 00 1D 8A 76 00 39 AD 01 00 20 00 60 00 11 22 33 44 55 66 77 88 99 AA BB 34 0D 0A

3.3.14. Kill label reply

Data: kill label success symbol flag: success: 0x01; failure: 0x00
      Error flag Errflag: error flag label failed
to return after the kill

Function: kill tag replies

kill tag response frame

Header		Frame length		Type CMD	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x8B	Flag	Errflag	0xxx
End of frame							
0x0D	0x0A						

Description: kill operation is successful, the error flagErrflag to 0x00. kill operation failed, suggesting ErrFlag type of failure, ErrFlag of 1, indicating no label; ErrFlag 3, showing the kill operation failed

example:kill success

command:C8 8C 00 0A 8B 01 00 80 0D 0A

3.3.15. Block Write Data

Data: AP (access code), MMB, MSA, MDL, MData, memory Bank, SA start address (word unit), needs to be written in the data length DL (words) of the data needs to be written in the Data

Function: Data Block Write tag to a specific length of a specific address.

Block Write command frame

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0xxx	0xxx	0x93	AP (MSB)	AP	AP
data							
AP (LSB)	MMB	MSA (MSB)	MSA (LSB)	MDL (MSB)	MDL (LSB)	MData (MSB)	MData
data							
MData	...	...	...	...	MData	MData (LSB)	MB
data							
SA (MSB)	SA (LSB)	DL (MSB)	DL (LSB)	Data (MSB)	...	...	Data (LSB)
BCCco	End of frame						
0xxx	0x0D	0x0A					

Description:

AP:4Byte access password

MMB: Mask of the data area(0x00for Reserve 0x01 forEPC, 0x02 represents the TID, 0x03 represents USR).

MSA: To mask the address.

MDL: Length mask.

Mdata: To mask data.

MB: To write data area(0x00for Reserve 0x01 forEPC, 0x02 represents the TID, 0x03 represents USR).

SA :forToAddress write data area.

DL :Length of data to be written(Word units).

Data : To write data, the previous high.

Example: Label PC = 0x3000,EPC = 0xE2003411B802011383258566Write EPC Area 6

Words of data,Data = 0x00112233445566778899aabbStarting at address 2Access password0x74290fd8

command:C8 8C 00 2B 93 74 29 0f d8 30 00 E2 00 34 11 B8 02 01 13 83 25 85 66 01 00 02 00 06 00 11 twenty two 33

44 55 66 77 88 99 AA BB 2D 0D 0A

3.3.16. Block Write response data

Data: Block Write data is successful logo flag: success: 0x01;
failure: 0x00
    Error flag Errflag: error flag returned
after a failed operation.
Features: Block Write data response.

Block Write response frame data

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x94	Flag	Errflag	0xxx
End of frame							
0x0D	0x0A						

Description: The operation is successful, the error flag Errflag to
0x00. Read data, the error flag Errflag
for 0x00. Blockwrite operation failed, suggesting ErrFlag type of failure, ErrFlag of 1,
indicating no label;
Errflag 2, represents an access password is wrong; Errflag 3, that the implementation of
Blockwrite command failed.

Example: Data write failure, the error flag is 0x01
command:C88C 00 0A 94 00 01 9F 0D 0A

3.3.17. Block Erase Data

Data: AP (access code), MMB, MSA, MDL, MData, memory Bank, SA start
address (word units), DL erased required length (word units)
Function: Block Erase specific length to a specific address tag.

Block Erase command frame

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0xxx	0xxx	0x95	AP (MSB)	AP	AP
data							
AP (LSB)	MMB	MSA (MSB)	MSA (LSB)	MDL (MSB)	MDL (LSB)	MData (MSB)	MData
data							
MData	...	...	...	...	MData	MData (LSB)	MB
data				BCCcode	End of frame		
SA (MSB)	SA (LSB)	DL (MSB)	DL (LSB)	0xxx	0x0D	0x0A	

Description:

AP:4Byte access password

MMB: Mask of the data area, 0x01 forEPC, 0x02 represents the TID, 0x03 represents USR.

MSA: To mask the address.

MDL: Length mask.

Mdata: To mask data.

MB: To write data area.

SA :forToAddress write data area.

DL :Length of data to be written(Word units).

Example: Label PC = 0x3000, EPC = 0xE2003411B802011383258566, Erase EPC tag

Area 6 Data word, the starting address is 2Access password 0x74290fd8

command:C8 8C 00 1F 95 74 29 0f d8 30 00 E2 00 34 11 B8 02 01 13 83 25 85 66 01 00 02 00 06 1F 0D 0A

3.3.18. Block Erase data response

Data: Block Erase data is successful logo flag: success: 0x01; failure: 0x00

Error flag Errflag: error flag returned after a failed operation.

Features: Block Erase data response.

Block Erase data response frame

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x96	Flag	Errflag	0xxx
End of frame							
0x0D	0x0A						

Explanation: The operation was successful, an error flag Errflag to 0x00. Read data, the error flag Errflag to 0x00. Block Erase operation fails, the failure prompt type ErrFlag, ErrFlag of 1, indicating no label; ErrFlag is 2, represents an access password is wrong; ErrFlag 3, showing performs Block Erase operation failed.

Example: Data Erase Successful, the error flag is 0x00

command:C88C 00 0A 96 01 00 9D 0D 0A

3.3.19. Set up QT parameters

Data: AP (access code), MMB, MSA, MDL, MData, QTData
Function: Set the QT command parameters.

Set command parameters QT

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0xxx	0xxx	0x97	AP (MSB)	AP	AP
data							
AP (LSB)	MMB	MSA (MSB)	MSA (LSB)	MDL (MSB)	MDL (LSB)	MData (MSB)	MData
data							
MData	...	...	...	...	MData	MData (LSB)	QTData
BCCcode	End of frame						
0xxx	0x0D	0x0A					

Note: Only support QT label command to respond to the command.

AP : In order to access the labelpassword.

MMB : To start filtering operationbank number, 0x01 represents EPC, 0x02 represents TID, 0x03 represents USR, other valuesinvalid.

MSA : Starting address for the filtering operation, the unit isbit.

MDL : To filter the data length inbit, 0x00 indicates no filter.

Mdata: Start filtering data, in bytes, ifMDLIt is not an integer multiple of bytes, the low complement0.

QTData :QTData high 6bit are reserved, bit0 0 indicates no close control, bit0 to 1 to enable close control;

   bit1 Enable Private Memory Map 0 indicates the label, bit1 1 indicates tab to enable Public Memory Map.

example:TID District filtration, filter address TID Zone 2bit, Filter length 13bit, Filtered data1110001000000'bAccess password 0x00000000Enable Private Memory Map, Enable close control.

command:C8 8C　00　14　97　00　00　00　00　02　00　02　00　0D　E2 00　01　6D　0D　0A

3.3.20. Set up QT parameter response

Data: a byte.
Function: **QT command parameter response.**

QT parameter setting response frame

Header		Frame length		CMDTypes	data	BCCcode	End of
0xC8	0x8C	0x00	0x09	0x98	OK: 1 Fail: 0	0xxx	0x0D

End of
0x0A

Description: None.

Example: Set succeeded.
command:C88C 00 09 98 01 90 0D 0A

3.3.21. Obtain **QT parameters**

Data: Byte 0
Function: Gets tag **QT command parameters.**

Get command parameter QT

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0xxx	0xxx	0x99	AP (MSB)	AP	AP
data							
AP (LSB)	MMB	MSA (MSB)	MSA (LSB)	MDL (MSB)	MDL (LSB)	MData (MSB)	MData
data							
MData	...	...	...	...	...	MData	MData (LSB)

BCCcode	End of frame	
0xxx	0x0D	0x0A

Description: Get tag **QT command parameters. Only supports QT command tag to respond to the command.**

example:TID District filtration, filter address TID Zone 2bit, Filter length 13bit, Filtered data1110001000000'bAccess password 0x00000000.
command:C8 8C 00 12 99 00 00 00 00 02 00 02 00 0D E2 00 64 0D 0A

3.3.22. Obtain **QT parameter response**

Data: two bytes.
Function: Get QT command parameter response.

QT parameters to obtain response frame

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x9A	OK: 1 Fail: 0	DByte0	0xxx

End of frame	
0x0D	0x0A

Description: DByte0 high 6bit reserved bits, bit0 close to 0 indicates no control, bit0 is 1 enables close control; bit1 0 indicates tags enabled Private Memory Map, bit1 1 represents tags to enable Public Memory Map.

Example: Enable Private Memory Map, Enable
close control. command:C8 8C 00 0A 9A 01
         01 90 0D 0A

3.3.23. **QTlabel**Read

Data: AP (access code), MMB, MSA, MDL, MData, MB, SA, DL
Function: QT read operation, read the label Private Memory Map data read operation is complete, regardless of success or failure of the operation, the label automatically return to the state before the QT memory map read.

Set command parameters QT

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0xxx	0xxx	0x9B	AP (MSB)	AP	AP
data							
AP (LSB)	MMB	MSA (MSB)	MSA (LSB)	MDL (MSB)	MDL (LSB)	MData (MSB)	MData
data							
MData	...	...	...	MData	MData (LSB)	QTData	MB
data				BCCcode	End of frame		
SA (MSB)	SA (LSB)	DL (MSB)	DL (LSB)	0xxx	0x0D	0x0A	

Note: Only support QT label command to respond to the command.

AP : In order to access the labelpassword.

MMB : To start filtering operationbank number, 0x01 represents EPC, 0x02 represents TID, 0x03 represents USR, other valuesinvalid.

MSA : Starting address for the filtering operation, the unit isbit.

MDL : To filter the data length inbit, 0x00 indicates no filter.

Mdata: Start filtering data, in bytes, ifMDLIt is not an integer multiple of bytes, the low complement0.

QTData :high7bit are reserved, bit0 0 indicates no close control, bit0 to 1 to enable close control.

MB :memory bank, the user needs to write data bank number

SA : Starting address for the data needs to be written, in units of word.

DL : Data length needs to be written in units of the word.

example:TID District filtration, filter address TID Zone 2bit, Filter length 13bit, Filtered data1110001000000'bRead EPC Area 6 Data word, the starting address is 2Access password
0x00000000, Close Read

command:C8 8C 00 19 9B 00 00 00 00 02 00 02 00 0D E2
 00 01 01 00 02 00 06 69 0D 0A

3.3.24. QTlabelRead answer

Data: Flag: Flag read data is successful, success: 0x01; failure: 0x00

Errflag: error flagThe error flag is returned after the failure of the read data.

DL: length of read dataThe unit
is the wordRead data: Data

Features: QT tag read response.

QT tag read response frame

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0xxx	0xxx	0x9C	Flag	Errflag	DL (MSB)
data					BCCcode	End of frame	
DL (LSB)	Data (MSB)	...	...	Data (LSB)	0xxx	0x0D	0x0A

Description: Reads data Data read data is determined by the length of the command data, in addition, read data is fail, then no response frame data Data; read

data, the error flag Errflag to 0x00. Read operation fails,
ErrFlag prompt type of failure, ErrFlag of 1, indicating no label; ErrFlag is 2,
represents an access password is wrong; ErrFlag 3, showing operation failed.

```
Example: Successful read TID Area 3 Words of data:0x123456789abc
command:C8    8C  00  12  9C  01  00  00  03  12  34  56  78  9A
BC A2    0D  0A
```

3.3.25. QTlabelWrite

```
Data: AP (access code), MMB, MSA, MDL, MData, memory Bank, SA start
address (word unit), needs to be written in the data length DL (words)
of the data needs to be written in the Data
```
Function: QT write operation, data is written to a specific length of the label
Private Memory Map, a specific address, after the write operation is complete,
regardless of success or failure of the operation, the label automatically return to the
state before the QT memory map read.

QT label write command frame

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0xxx	0xxx	0x9D	AP (MSB)	AP	AP
data							
AP (LSB)	MMB	MSA (MSB)	MSA (LSB)	MDL (MSB)	MDL (LSB)	MData (MSB)	MData
data							
MData	...	...	...	MData	MData	QTData	MB
data							
SA (MSB)	SA (LSB)	DL (MSB)	DL (LSB)	Data (MSB)	...	...	Data (LSB)
BCCcode	End of frame						
0xxx	0x0D	0x0A					

Note: Only support QT label command to respond to the command.

AP : In order to access the labelpassword.

MMB : To start filtering operationbank number, 0x01 represents EPC, 0x02 represents TID, 0x03 represents USR, other valuesinvalid.

MSA : Starting address for the filtering operation, the unit isbit.

MDL : To filter the data length inbit, 0x00 indicates no filter.

Mdata: Start filtering data, in bytes, ifMDLIt is not an integer multiple of bytes, the low complement0.

QTData :high7bit are reserved, bit0 0 indicates no close control, bit0 to 1 to enable close control.

MB :memory bank, the user needs to write data bank number

SA : Starting address for the data needs to be written, in units of word.

DL : Data length needs to be written in units of the word.

Data : To write data, the previous high.

example:TID District filtration, filter address TID Zone 0bit, Filter length 96bit, Filtered data0xE2003414013301001038D2B5Write EPC Area 6 Words of data,Data = 0x00112233 445566778899aabbStarting at address 2Access password 0x00000000, Close-write operation

command:C8 8C 00 2F 9D 00 00 00 00 02 00 00 00 60 E2 00 34 14 01 33 01 00 10 38 D2 B5 01 01 00 02 00 06 00 11 22 33 44 55 66 77 88 99 AA BB 6A 0D 0A

3.3.26. QTWrite transponder tag

Data: Data is successful write flag flag: success: 0x01; failure: 0x00

Error Flag Errflag: write error flag return data after a failure.

Function: write data response.

QT label write response frame

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0x0A	0x9E	Flag	Errflag	0xxx
End of frame							
0x0D	0x0A						

Description: write data, the error flag Errflag to 0x00. The write operation failed, Errflag prompt type of failure, Errflag of 1, indicating no label; Errflag 2, represents an access password is wrong; Errflag 3, represents the Write operation failed.

Example: Data write failure, the error flag is 0x03
command:C8 8C   00   0A   9E   00   03   97   0D   0A

3.3.27. Block Permalock operation

Data: AP (access code), MMB, MSA, MDL, MData, ReadLock, MemBank, BlockPtr, BlockRange, Mask.
Function: BlockPermalock operation.

Block Permalock operation command frame

Header		Frame length		CMDTypes	data		
0xC8	0x8C	0xxx	0xxx	0x9F	AP (MSB)	AP	AP
data							
AP (LSB)	MMB	MSA (MSB)	MSA (LSB)	MDL (MSB)	MDL (LSB)	MData (MSB)	MData
data							
MData	...	...	...	MData	MData (LSB)	ReadLock	MB
data							
BlockPtr (MSB)	BlockPtr (LSB)	BlockRange(MSB)	BlockRange(LSB)	Mask (MSB)	...	...	Mask (LSB)
BCCcode	End of frame						
0xxx	0x0D	0x0A					

Note: Only support Label Block Permalock order to respond to the command.

AP: Labelaccesspassword .

MMB : Start the filter operationbank No.,0x01forEPC0x02For the TID, 0x03As USER area,No other values.

MSA: Start address to start the filtering operation, the unit is bit.

MDL : Filtering operation starts filtering data length, inbit,0x00 indicates no filter.

Mdata: Start filtering data, in bytes, ifMDLIt is not an integer multiple of bytes, the low complement0.

ReadLock: High 7bit reserved bits, bit0 indicates 0 Read, bit0 indicates Permalock 1.

MB:formemory bank, To operate the data area.

BlockPtr :Block start address is, in units of 16 blocks, A block of 8 bytes.

BlockRange :block range, the unit block of 16

Mask: Mask data block, the previous high, whether the two bytes corresponding to 16 16-bit block selection.

example:TID District filtration, filter address TID Zone 0bit, Filter length 96bit, Filtered data0xE2003414013301001038D2B5,readlock = 0,MB = 3,BlockPtr = 0, BlockRange = 1, Access password 0x00000000

command:C8 8C   00   twenty three 9F   00   00   00   00   02   00   00   00
            60   E2

00   34   14   01   33   01   00   10   38   D2   B5   00   03   00   00   00   01

62   0D   0A

3.3.28. Block Permalock operating answer

Data: Flag NO symbol of success, success: 0x01; failure: 0x00;
        ErrflagFor the error flag, Error flag returned after a failed operation.

Features: Block Permalock operating answer.

Block Permalock operation response frame

Header		Frame length		CMDTypes	data		BCCcode
0xC8	0x8C	0x00	0xxx	0xA0	Flag	Errflag	0xxx
End of frame							
0x0D	0x0A						

Description: BlockPermalock successful, the error flag Errflag to 0x00. Block Permalock failed, suggesting ErrFlag type of failure, ErrFlag of 1, indicating no label; ErrFlag is 2, represents an access password is wrong; ErrFlag 3, showing Block Permalock operation failed.

in case Block Permalock readlock command parameter is 0, the corresponding data response after ErrFlag, the data word length BlockRange.

example:Block Permalock success,Readlock = 0,BlockRange = 1The data is 0xF000

command:C8 8C   00   0C   A0   01   00   F0   00   5D   0D   0A