Software Development Manual

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Software Development Manual

一、Basic information

1. Factory Default Configuration

Communication Mode：USB

Trigger Mode：Manual mode

Terminator：CR。

Factory Default Configuration

2. Save current configuration as default

The user can set the required configuration , and then scan the following barcode，Save current configuration as default

Save current configuration as default

3. Default Configuration

When the user has set the default settings, scan the following barcode to restore the original set of customer configurations

Default Configuration

4. Parameter code

***open Parameter code**

close Parameter code

5. Product information

二、Communication Mode

1. Serial Port

Using Serial Port，read moudle and the host devices must match exactly in ommunication parameter configuration, to ensure smooth communication and content are correct, Serial Port is configured to: **9600 baud, 8 bits of data, no parity, 1 stop bit**

TTL 232

（1）Baud Rate

The default baud rate is 9,600

1200bps

2400bps

4800bps

* 9600bps

19200bps

38400bps

57600bps

115200bps

（2）parity

Odd

Even

* None

（3）Stop bit

***1 Stop Bit**

2 Stop Bits

2. USB KBW

USB KBW

3. USB COM

USB COM

三、Trigger Mode

1. Power Mode

This parameter determines the power mode of the engine.

In Low Power mode, the scan engine enters into a low power consumption Sleep power state whenever possible (provided all WAKEUP commands were released)

In Continuous Power mode, the scan engine remains in the Awake state after each decode attempt

The Sleep and Awake commandscan be used to change the power state in either the Low Power mode or the Continuous Power mode.

Continuous Power

Low Power

2. Manual mode

（1）Key Holding

Press the button to trigger the reading, release the button to end the reading. Reading success or reading time over a single reading time will end the reading。

***Manual mode-Key Holding**

（2）Single Key Trigger

Detects the change of the key level (Maintain 30ms, depending on the product)to start reading, and then detects the change of the key level (Maintain 30ms, depending on the product)again to end reading. Reading success or reading time over a single reading time will end the reading.

Manual mode-Single Key Trigger

3. Continuous Mode

The reading engine performs continuous work. Reading success or reading time over a single reading time will end the reading. More than the specified time will automatically trigger the next reading

Continuous Mode

（1）Interval Time

The interval time between two readings in continuous mode. Regardless of the last success or failure to read, more than the specified time will automatically trigger the next reading.

Default: 500ms,unit: 100ms,range: 0-9900ms

To set a Interval Time, scan the bar code below. Next scan two Numeric Bar Codes in appendix that correspond to the desired time-out. Single digit values must have a leading zero. For example, to set a time-out of 0.5 seconds, scan the bar code below, then scan the “0” and “5” bar codes. To change the selection or cancel an incorrect entry, scan Cancel

Interval Time

(Default: 500ms.)

4. Automatic Induction Mode

In automatic induction mode, the scan engine detects the brightness of the surroundings. Trigger reading when the brightness changes. Reading success or reading time over a single reading time will end the reading. Regardless of the last success or failure to read, re-enter the detection of the surrounding environment brightness.

Automatic Induction Mode

（1）Stability of Induction Time

Stability of induction time, Default: 500ms, unit:100ms, range: 0-9900ms

For example:

Set stability of induction time is 200ms

Scan stability of induction time setting code,then scan *Numeric Bar Codes* 0 and 2

Set stability of induction time is 1500ms

Scan stability of induction time setting code,then scan *Numeric Bar Codes* 1 and 5

Stability of Induction Time

（2）Sensitivity Level

There are three levels of sensitivity to choose from , Default: 500ms

***High**

Middle

Low

5. Host mode

Through the command to trigger the scan engine to read, also through the command to trigger the scan engine to end reading. Reading success or reading time over a single reading time will end the reading.

Host mode

6. Duration in Scanning

This parameter sets the maximum time decode processing continues during a scan attempt. It is programmable in 0.1 second increments from 0.50 to 25.5 seconds.

To set a duration in scanning, scan the bar code below. Next scan three *Numeric Bar Codes* in appendix that correspond to the desired on time. Single digit numbers must have a leading zero. For example, to set an

on time of 0.5 seconds, scan the bar code below, then scan the "0", "0" and "5" bar codes; to set an on time of 10.5 seconds, scan the bar code below, then scan the "1", "0" and "5" bar codes. To change the selection or cancel an incorrect entry, scan *Cancel*

Duration in Scanning(Default: 3.0 sec.)

7. Output Interval of The Same Code

To avoid reading the same barcode multiple times in continuous mode and automatic induction mode, set the scan engine to allow reading the same barcode after a delay.

Output interval of the same code is to refuse to read the same barcode within the set length of time.

Default: 500ms,unit:100ms,range: 0-9900ms

To set output interval of the same code, scan the bar code below. Next scan two Numeric Bar Codes in appendix that correspond to the desired time-out. Single digit values must have a leading zero. For example, to set a time-out of 0.5 seconds, scan the bar code below, then scan the “0” and “5” bar codes. To change the selection or cancel an incorrect entry, scan Cancel in appendix.

Output Interval of The Same Code

8. Quick set for output Interval of The Same Code

None

delay 1s

delay 3s

Delay 5s

delay 7s

delay forever

四、Floodlight and Positioning lights

1. Floodlight

*** Lighting when Read**

Always Lighting

Always Close

2. Positioning lights

*** Lighting when Read**

Always Lighting

Always Close

五、Output and prompt

1. Keyboard

（1） Country/Language Keyboard

* American Keyboard

Belgium

Finland

France

Germany

Italy

Sweden

England

Denmark

Norway

Spain

Portugal

Turkey_F

Turkey_Q

Japan

Russia

Czech

Thailand

Ukraine

Brazil（ABNT2）

Greece

Hungary

Netherlands

Poland（214）

Romania (standard)

Slovakia

Multi-national keyboard

（2） Keyboard type

Enable virtual keyboard, you can output the correct data in any keyboard language mode.When using virtual keyboard, you must ensure that the keypad keys are valid。

*StandardKeyboard

Virtual Keyboard

（3） Time interval that keyboard outputs character

Time interval that keyboard outputs character, range: 0-1000ms,unit: 5ms,default: 5ms

0ms

10ms

（4） Control characters in ASCII output mode select

Control characters in ASCII (0x00-0x20) output mode select.

output function keys: control characters are used as custom function keys, the function is detailed in appendix 4

output Ctrl key combination (this function is used with the prefix) : CTRL key combination mode output control character, detailed function is detailed in appendix 4

ALT mode output control character: support full control character output in Chinese environment, specific Reference Standard ASCII table

output Enter, DownArrow: Shielding other control characters, only output: 0x07 output Enter, 0x0A output DownArrow, 0x0D output Enter.

output function keys

output Ctrl key combination

ALT mode output control character

Output Enter、DownArrow

2. Prompt sound

（1） type of Buzzer

***Passive Buzzer**

Active Buzzer

（2） Mute

Open

*** Close**

（3） Beeper Volume

* High

Middle

Low

（4） Beep After Good Decode

*Open

Close

（5） Boot prompt

*open

Close

（6） Setup Code Prompt

*open

Close

3. LED After Good Decode

To enable or disable LED after good decode, scan the appropriate bar code below

Disable ***enable**

4. operation Mode of decode led

***the indicator led is always on**

***the indicator led is always off**

5. Transmit “No Read” Message

Enable this option to transmit “NR” if a symbol does not decode during the timeout period or before the trigger is released. Any enabled prefix or suffixes are appended around this message.

When disabled, and a symbol cannot be decoded, no message is sent to the host.

***Disable No Read**

Enable No Read

6. Letter case conversion

For example If the Barcode content is： ab123dE，if set to " all uppercase "，the output is：AB123DE；if set to "all lowercase", the output is：ab123de；

if set to " Case Inversion", the output is：AB123De；

Default: **Normal Letter Case**

* Normal Letter Case

all uppercase

all lowercase

Case Inversion

7. Output Character Set Type

0: Primitive Type

1:GBK(GB2312)

2: UTF8

Primitive Type

***GBK**

Unicode

8. Input Character Set Type

***AUTO** **GBK(GB2312)**

UTF8

ASCII

Japanese

DEC MULTI-COUNTRY CHARACTER SET (MCS)

Japanese single byte

六、Data editor

1. Code ID

The user can identify different barcode types by CODE ID, and CODE ID USES a character to identify them,detail in Appendix 3。

***Disable send Code ID**

Enable send Code ID

2. Terminator

Add character format: Decode Data+Terminator.

***NONE**

CR LF

CR

TAB

CRCR

CR LF CR LF

3. Terminator conversion

LF(\n) and CR LF (\r\n) both convert CR (\r)

*disable

able

4. Add multiple Prefixes/suffixes

- Prefixes

(1) Scan following barcode“set multiple prefixes”

set multiple prefixes

(2) Next scan four Numeric Bar Codes in appendix,Scan the Numeric Bar Codes in turn, and set the successful prompt once every four times

(3) Scan following barcode“Complete setup multiple Prefixes/suffixes”

Complete setup multiple Prefixes/suffixes

- **suffixes**

（1）Scan following barcode“set multiple suffixes”

set multiple Suffix

（2）Next scan four Numeric Bar Codes in appendix,Scan the Numeric Bar Codes in turn, and set the successful prompt once every four times

（3）Scan following barcode“Complete setup multiple Prefixes/suffixes”

Complete setup multiple Prefixes/suffixes

- **Prefixes/suffixes take effect**

***Output Decoding Data Only**

Prefixes+data

Data+suffixes

Prefixes+data+suffixes

5. Add Prefix and suffix base on bar code type (non-generic version)

（1）Add Prefix

Sets the prefix based on the bar code type

Set multiple prefixes based on the bar code type,

step 1: Scan the Code First,

step 2: Select the Bar Code type, according to the bar code type supported by "Appendix 5" and "Appendix 4", scan the index of the corresponding hexadecimal value, such as QR Code type 0XF1, 0XF1 Hexadecimal to decimal is 241，the scan valve is 1000+241=1241，then scan the 1,2,4,1 Numeric Bar Codes to select the type of Bar Code;

Step 3: Scan the required prefix, such as the need to set the number "1" ， scan 1049(0x31) ;

Step 4: Scan “complete the setting of multiple prefix”

complete the setting of multiple prefix

（2）Add Suffix

Step refers to "add prefix bar code by type. "

Sets the suffix based on the bar code type

（3）remove prefixes based on Bar code type

remove prefixes based on Bar code type

step 1: Scan the Code First；

step 2: Select the Bar Code type, according to the bar code type supported by "Appendix 5" and "Appendix 4", scan the index of the corresponding hexadecimal value, such as QR Code type 0XF1, 0XF1 Hexadecimal to decimal is 241，the scan valve is 1000+241=1241，then scan the 1,2,4,1 Numeric Bar Codes to select the type of Bar Code；

Notes: if you want remove all type of barcode，Scan“1，2，5，5”（0xFF）

（4）remove suffixes based on Bar code type

Step refers to "remove prefix bar code by type. "

Remove suffixes based on Bar code type

（5）prefix and suffixes Switch setting（Data format）

No prefix and suffix (raw data)

Output prefix (prefix+data)

Output suffix (data + suffix)

Output prefix and suffix (prefix + data + suffix)

6. Hide data

(1) Hide Head Data

***Disable**

enable

Set Hidden Number

range 1-255. Scan the following barcode,Next scan three Numeric Bar Codes in appendix. For example, if you need to hide 16 characters, scan three Numeric Bar Codes in turn: 0 1 6

Hide Head Data-head

(2) Hide intermediate data

***Disable**

enable

Sets the start position of hidden intermediate data

Sets the start position of hidden intermediate data, range 1-255.Scan the following barcode,Next scan three Numeric Bar Codes in appendix, for example, to hide the data after the third character(the fourth begins to hide),scan three Numeric Bar Codes in turn: 0 0 3

start position of hidden intermediate data

Set Hidden Number

range 1-255. Scan the following barcode,Next scan three Numeric Bar Codes in appendix. For example, if you need to hide 16 characters, scan three Numeric Bar Codes in turn: 0 1 6

Set Hidden Number-intermediate

(3) Hide tail data

***Disable**

enable

Set Hidden Number

range 1-255. Scan the following barcode,Next scan three Numeric Bar Codes in appendix. For example, if you need to hide 16 characters, scan three Numeric Bar Codes in turn: 0 1 6

Set Hidden Number-tail

7. Hide header and footer data base on bar code type (non-generic version)

（1）Hide header data

step 1: Scan the Code First;

step 2: Select the Bar Code type, according to the bar code type supported by "Appendix 5" and "Appendix 4", scan the index of the corresponding hexadecimal value, such as QR Code type 0XF1, 0XF1 Hexadecimal to decimal is 241，the scan valve is 1000+241=1241，then scan the 1,2,4,1 Numeric Bar Codes to select the type of Bar Code;

Step 3: Hidden Length (4-digit decimal value).if you want hide 5 bit header data,scan 0,0,0,5 Numeric Bar Codes;

Notes: Supports setting all bar code types at once , Scan“1，2，5，5”（0xFF）

Hide header data base on barcode type

（2）able/disable hide header data

***disable hide header data**

able hide header data

（3）Hide footer data base on bar code type

Step refers to " **Hide header data base on barcode type**"

Hide footer data base on bar code type

（4）able/disable hide footer data

***disable hide footer data**

able hide footer data

8. Insert customize data

（1）able /disable insert customize data

Supports customize data insertion anywhere in the Barcode, up to 10 bytes

***disable**

able

（2）set the location where the data is inserted

Depending on where you want to insert, scan the corresponding value (4 digit Numeric Bar Codes) , such as set after the third character, you need to scan four Numeric Bar Codes "0" , "0" , "0" , "3" .

If set to 0, the header is inserted into the decoded data. If the setting is larger than the length of the decoded data, the end of the decoded data is inserted by default. The range of supported insertion positions is 0-5000.

set the location where the data is inserted

（3）set the inserted data

Set Insert customize data, such as need to set the character "QR" (0x51,0X52) , then scan two consecutive sets of Numeric Bar Codes 1081(1000 + 0x51) , 1082(1000 + 0x52) .

set the inserted data

（4）exit settings customize data

Maximum support for 10 bitye customize data, can be set continuously, over 10 bitye automatic exit settings. Complete ahead of time: scan the "exit settings customize data " setting code, exit settings and save the current set of data.

exit settings customize data

9. STX&ETX

*Disable

STX

ETX

STX+ETX

10. Character Replace

The feature can replace any character in Barcode data with another character, and supports either 1:1 or 1: n replacement, such as A--B、A--BC、A--BCD

Operating instructions:

（1）Sets the data to be replaced

Sets the data to be replaced

For example:Group Separator, According to the Character Equivalents,detali in Appendix 4,the scan value is 1029,scan the Numeric Bar Code1,0,2,9 one by one

（2）Set the Replacement data

Set the Replacement data

For example: symbol }, According to the Character Equivalents,detali in Appendix 4,the scan value is 1125,scan the Numeric Bar Code1,1,2,5 one by one

（3）complete setup

complete setup

（4）Enable / disable data replacement

Enable

disable

七、Code Enable/Disable

1. All Barcode Switch

enable

disable

2. 1d code master switch

enable

*disable

3. 2d code master switch

enable

*disable

4. Reverse code reading

Mainly for the 1D code switch, the 2D code is recommended to open separately,2D code has a separate switch

enable

*disable

5. Read Multiple Barcodes at once

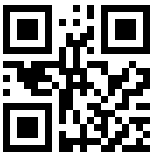
(1) Must read Multiple Barcodes at once

able

disable

(2) number of barcodes read at one time

1



2

3

6. UPC-A

（3） UPC-A enable/disable

***enable**

disable

（4） UPC-A Preamble

No Preamble

***System Character**

System Character & Country Code

（5） UPC-A check bit

Do not transmit UPC-A check bit

***transmit UPC-A check bit**

7. UPC-A additional code

(1) UPC-A 2 additional code

enable

*disable

(2) UPC-A 5 additional code

Enable

*disable

(3) UPC-A Must read additional code

Enable

*disable

8. UPC-E

（1） UPC-E enable/disable

*****enable

disable

（2） UPC-E Preamble

No Preamble

*System Character

（3） UPC-E check bit

Do not transmit UPC-E check bit

*transmit UPC-E check bit

9. UPC-E additional code

(1) UPC-E 2 additional code

enable

***disable**

(2) UPC-E 5 additional code

Enable

***disable**

(3) UPC-E Must read additional code

Enable

***disable**

10. UPC-E transfer UPC-A

Enable

*disable

11. UPC-A transfer EAN-13

Enable

*disable

12. UPC-E1

enable

*disable

13. EAN-8

（1） EAN-8 able/disable

*enable

disable

（2） EAN-8 check bit

Do not transmit EAN-8 check bit

transmit EAN-8 check bit

14. EAN-8 additional code

(1) EAN-8 2 additional code

Enable

***disable**

(2) EAN-8 5 additional code

Enable

***disable**

(3) EAN-8 Must read additional code

Enable

*disable

15. EAN-13

（1） EAN-13 enable/disable

***enable**

*disable

（2） EAN-13 check bit

Do not transmit EAN-13 check bit

*transmit EAN-13 check bit

16. Bookland EAN (ISBN)

ISBN disable is treated as EAN13

able ISBN

*disable ISBN

17. ISSN

ISSN disable is treated as EAN13

able ISSN

*disable ISSN

18. EAN-13 additional code

(1) EAN-13 2 additional code

Enable

*disable

(2) EAN-13 5 additional code

enable

*disable

(3) EAN-13 Must read additional code

Enable

*disable

19. CODE 128

* Enable

Disable

20. GS1-128

* enable

disable

21. Interleaved 2 of 5

(1) I 2 of 5 enable/disable

*enable

disable

(2) Set Lengths for Interleaved 2 of 5

For example, to decode **Interleaved 2 of 5** symbols containing between 4 and 12 characters

first scan **Interleaved 2 of 5-Length Within Range**, then scan **0**, **4**, **1** and **2** (single digit numbers must be preceded by a leading zero). *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan Cancel

I 2 of 5 - Length Within Range

I 2 of 5 - Any Length

(3) I 2 of 5 Check Digit Verification

enable

*disable

(4) Transmit I 2 of 5 Check Digit

enable

*disable

22. Matrix 2 of 5

(1) Matrix 2 of 5 enable/disable

enable

*disable

(2) Set Lengths for Matrix 25

For example, to decode Matrix 25 symbols containing between 4 and 12 characters

first scan **Matrix 25 Length Within Range**, then scan **0**, **4**, **1** and **2** (single digit numbers must be preceded by a leading zero). *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

Matrix 25 - Length Within Range

Matrix 25 - Any Length

(3) Matrix 25 Check bit Verification

Enable

*disable

(4) transmit Matrix 2 of 5 check bit

Enable

*disable

23. Industrial 2 of 5

(1) Industrial 2 of 5 enable/disable

enable

***disable**

(2) Set Lengths for Industrial 2 of 5

For example, to decode **Industrial 2 of 5** containing between 4 and 12 characters

first scan **Industrial 2 of 5 Length Within Range**, then scan **0**, **4**, **1** and **2** (single digit numbers must be preceded by a leading zero). Numeric Bar Codes is in appendix. To change the selection or cancel an incorrect entry, scan Cancel

D 2 of 5 - Length Within Range

D 2 of 5 - Any Length

24. Standard 2 of 5

(1) Standard 2 of 5 enable/disable

enable

***disable**

(2) Set Lengths for Standard 2 of 5

For example, to decode **Standard 2 of 5** containing between 4 and 12 characters

first scan **Standard 2 of 5 Length Within Range**, then scan **0**, **4**, **1** and **2** (single digit numbers must be preceded by a leading zero). Numeric Bar Codes is in appendix. To change the selection or cancel an incorrect entry, scan Cancel

Standard 25 - Length Within Range

Standard 25 - Any Length

25. Code 39

(1) code39 enable/disable

***enable**

disable

(2) Code39 Length

Any Length code39

(3) Code 39 Check bit Verification

enable

*disable

(4) transmit Code39 check bit

Transmit the check bit, the check bit Verification function should enabled

transmit

*do not transmit

(5) Transmit Code 39 start and ending symbol

*disable

enable

26. Code 39 Full ASCII

Enable

* Disable

27. Code 32

(1) code32 enable/disable

Enable

* Disable

(2) code32 add prefix A

Enable

* disable

28. Code 93

(1) Code93 enable/disable

Enable

*** disable**

(2) code93 lenght

Any lenght can read

29. Code 11

（1） code11 enable/disable

Enable

***** disable

（2） code11 lenght

Any lenght can read

（3） Code 11 Check bit Verification

enable

one check bit

two check bit

（4） transmit check bit

enable

***** disable

30. Codabar

（1） Codabar enable/disable

enable

***** disable

（2） **Codabar lenght**

Any lenght can read

（3） **Start Character and Terminator**

The start character and terminator are allowed to be one of the four characters of “A”, “B” “C” “D”.The terminator is also allowed to be one of the four characters of “T”, “N”, “*”, “E”.

***ABCD/ABCD**

ABCD/TN*E

（4） **Transmit Start Character and Terminator**

Don not transmit

*****transmit

31. MSI

（1） **MSI enable/disable**

Enable

*****disable

（2） **MSI lenght**

Any lenght can read

32. GS1-Databar

Enable

*** disable**

33. GS1 composite code

Enable

*** disable**

34. QR Code

(1) QR code enable/disable

*** enable**

disable

(2) QR code reverse

*only read Normal code

Read Normal/reverse code

(3) QR Mirror

***disable** **enable**

35. Data Matrix

(1) Data Matrix enable/disable

*** enable**

disable

(2) Read reverse Data Matrix

*only read Normal code

Only Read reverse code

Read Normal/reverse code

① **Data Matrix Mirror**

***disable**

enable

36. PDF 417

*** enable**

disable

37. Aztec code

enable

***disable**

38. Maxi code

enable

***disable**

39. Hanxin code

enable

***disable**

40. Brazilian bank code

enable

***disable**

Appendix 1：numbered bar code

For parameters requiring specific numeric values, scan the appropriately numbered bar code(s).

0

1

2

3

4

5

6

7

8

9

Appendix 2：CANCEL

To change the selection or cancel an incorrect entry, scan the bar code below.

Cancel

Appendix 3：Code ID

Code character	Code symbol
A	UPC-A, UPC-E, EAN-8, EAN-13
B	Code 39, Code 32
C	Codabar
D	Code 128, GS1-128,ISBT 128
E	Code 93
F	Interleaved 2 of 5/ITF, ITF14
G	Industrial 2 of 5, Standard 2 of 5
H	CODE11
J	MSI, MSI/Plessey
R	GS1 DataBar-14, GS1 DataBar Limited, GS1 DataBar Expanded, RSS
V	Matrix 25
r	PDF417
u	DataMatrix(DM)
q	QR
a	Aztec Code
x	Maxi Code
c	HanXin

Appendix 4：Character Equivalents

Scan Value	HEX Value	Keyboard Function Key	Keyboard Ctrl Combination Key
1000	00h	Null	CTRL 2
1001	01h	Keypad Enter	CTRL A
1002	02h	Caps lock	CTRL B
1003	03h	Right Arrow	CTRL C
1004	04h	Up Arrow	CTRL D
1005	05h	Null	CTRL E
1006	06h	Null	CTRL F
1007	07h	Enter	CTRL G
1008	08h	Left Arrow	CTRL H
1009	09h	Horizontal Tab	CTRL I
1010	0Ah	Down Arrow	CTRL J
1011	0Bh	Vertical Tab	CTRL K
1012	0Ch	Backspace	CTRL L
1013	0Dh	Enter	CTRL M
1014	0Eh	Insert	CTRL N
1015	0Fh	Esc	CTRL O
1016	10h	F11	CTRL P
1017	11h	Home	CTRL Q
1018	12h	Print Screen	CTRL R
1019	13h	Delete	CTRL S
1020	14h	tab+shift	CTRL T
1021	15h	F12	CTRL U

1022	16h	F1	CTRL V
1023	17h	F2	CTRL W
1024	18h	F3	CTRL X
1025	19h	F4	CTRL Y
1026	1Ah	F5	CTRL Z
1027	1Bh	F6	CTRL [
1028	1Ch	F7	CTRL \
1029	1Dh	F8	CTRL]
1030	1Eh	F9	CTRL 6
1031	1Fh	F10	CTRL -
1032	20h	Space	
1033	21h	!	
1034	22h	‘	
1035	23h	#	
1036	24h	$	
1037	25h	%	
1038	26h	&	
1039	27h	‘	
1040	28h	(	
1041	29h	)	
1042	2Ah	*	
1043	2Bh	+	
1044	2Ch	,	
1045	2Dh	-	
1046	2Eh	.	
1047	2Fh	/	
1048	30h	0	
1049	31h	1	
1050	32h	2	
1051	33h	3	
1052	34h	4	
1053	35h	5	
1054	36h	6	

1055	37h	7
1056	38h	8
1057	39h	9
1058	3Ah	:
1059	3Bh	;
1060	3Ch	<
1061	3Dh	=
1062	3Eh	>
1063	3Fh	?
1064	40h	@
1065	41h	A
1066	42h	B
1067	43h	C
1068	44h	D
1069	45h	E
1070	46h	F
1071	47h	G
1072	48h	H
1073	49h	I
1074	4Ah	J
1075	4Bh	K
1076	4Ch	L
1077	4Dh	M
1078	4Eh	N
1079	4Fh	O
1080	50h	P
1081	51h	Q
1082	52h	R
1083	53h	S
1084	54h	T
1085	55h	U
1086	56h	V
1087	57h	W

1088	58h	X
1089	59h	Y
1090	5Ah	Z
1091	5Bh	[
1092	5Ch	\
1093	5Dh	]
1094	5Eh	^
1095	5Fh	_
1096	60h	‘
1097	61h	a
1098	62h	b
1099	63h	c
1100	64h	d
1101	65h	e
1102	66h	f
1103	67h	g
1104	68h	h
1105	69h	i
1106	6Ah	j
1107	6Bh	k
1108	6Ch	l
1109	6Dh	m
1110	6Eh	n
1111	6Fh	o
1112	70h	p
1113	71h	q
1114	72h	r
1115	73h	s
1116	74h	t
1117	75h	u
1118	76h	v
1119	77h	w
1120	78h	x

1121	79h	y	
1122	7Ah	z	
1123	7Bh	{	
1124	7Ch	|	
1125	7Dh	}	
1126	7Eh	~	
1127	7Fh		Undefined

Appendix 5：Supported bar code types

Code Type	**HEX**	**Code Type**	**HEX**
Not Applicable	0x00	EAN 13 with 5 Supps.	0x8B
Code 39	0x01	EAN 13	0x0B
Codabar	0x02	EAN 13 with 2 Supps.	0x4B
Code 128, Setup128	0x03	EAN 13 with 5 Supps.	0x8B
Discrete 2 of 5	0x04	MSI	0x0E
IATA 2 of 5	0x05	GS1-128	0x0F
Interleaved 2 of 5	0x06	UPC E1	0x10
Code 93	0x07	UPC E1 with 2 Supps.	0x50
UPC A	0x08	UPC E1 with 5 Supps.	0x90
UPC A with 2 Supps.	0x48	Trioptic Code 39	0x15
UPC A with 5 Supps.	0x88	Bookland EAN	0x16
UPC E0	0x09	Coupon Code	0x17
UPC E0 with 2 Supps.	0x49	GS1 DataBar-14	0x30
UPC E0 with 5 Supps.	0x89	GS1 DataBar Limited	0x31
EAN 8	0x0A	GS1 DataBar Expanded	0x32
EAN 8 with 2 Supps	0x4A	Code11	0x0C
EAN 8 with 5 Supps	0x8A	PDF417	0xF0
QR	0xF1	Data Matrix(DM)	0xF2
Aztec Code	0xF3	Maxi Code	0xF4
Veri Code	0xF5	Han Xin	0xF7
AIM128	0xA2	ISSN	0xA3
PLESSEY	0xA4		

Appendix 6： Serial commands

remark：

1. The module works in low-power mode by default. When sending serial port commands, it needs to wake up the device to be effective

2. The serial port commands to start decoding and stop decoding need to be valid in the host mode, please switch to the host mode first (see the serial port command table for details)

Table 6-1

Name	Command
CMD_ACK	04 D0 04 00 FF 28
CMD_NAK	RESEND:05 D1 04 00 01 FF 25 BAD_CONTEXT:05 D1 04 00 02 FF 24 DENIED:05 D1 04 00 06 FF 20
DECODE_DATA	None
LED_OFF	05 E8 04 00 01 FF 0E
LED_ON	05 E7 04 00 01 FF 0F
PARAM_DEFAULTS	04 C8 04 00 FF 30
PARAM_REQUEST	Following table
PARAM_SEND	Following table
REQUEST_REVISION	04 A3 04 00 FF 55
REPLY_REVISION	None
SCAN_DISABLE	04 EA 04 00 FF 0E
SCAN_ENABLE	04 E9 04 00 FF 0F
SLEEP	04 EB 04 00 FF 0D
START_DECODE	04 E4 04 00 FF 14
STOP_DECODE	04 E5 04 00 FF 13
WAKEUP	NONE
RESET	04 FA 04 00 FE FE
Custom buzzer sound	05 E6 04 00 00 FF 11 05 E6 04 00 01 FF 10

Table 6-2

Para name	Command	Query command
Default	Client default:08 C6 04 08 00 F2 FF 00 FD 35 Factory default:08 C6 04 08 00 F2 FF 03 FD 32	06 C7 04 00 F2 FF FD 3E
Scan duration	4s：07 C6 04 08 00 88 28 FE 77 10s:07 C6 04 08 00 88 64 FE 3B	05 C7 04 00 88 FE A8
Quick setting of single scan time (scan duration)	Unlimited time： 08 C6 04 08 00 F2 CF 00 FD 65 3s： 08 C6 04 08 00 F2 CF 03 FD 62 5s： 08 C6 04 08 00 F2 CF 05 FD 60 10s： 08 C6 04 08 00 F2 CF 0A FD 5B 15s： 08 C6 04 08 00 F2 CF 0B FD 5A 20s： 08 C6 04 08 00 F2 CF 0C FD 59 30s： 08 C6 04 08 00 F2 CF 0D FD 58 60s： 08 C6 04 08 00 F2 CF 0E FD 57	06 C7 04 00 F2 FA FD 43
Power mode	Continuous power supply：07 C6 04 08 00 80 00 FE A7 Low power consumption： 07 C6 04 08 00 80 01 FE A6	05 C7 04 00 80 FE B0
Trigger mode	Button hold：07 C6 04 08 00 8A 00 FE 9D Button trigger：07 C6 04 08 00 8A 02 FE 9B Continuous：07 C6 04 08 00 8A 04 FE 99 Auto detective 07 C6 04 08 00 8A 09 FE 94 Host mode：07 C6 04 08 00 8A 08 FE 95	05 C7 04 00 8A FE A6
Reading interval time	0s:07 C6 04 08 00 89 00 FE 9E 0.5s: 07 C6 04 08 00 89 05 FE 99 3s：07 C6 04 08 00 89 1E FE 80	05 C7 04 00 89 FE A7
Buzzer volume	low：07 C6 04 08 00 8C 02 FE 99 mid: 07 C6 04 08 00 8C 01 FE 9A high: 07 C6 04 08 00 8C 00 FE 9B	05 C7 04 00 8C FE A4
Buzzer type	* Passive buzzer: 08 C6 04 08 00 F2 D8 00 FD 5C Active buzzer: 08 C6 04 08 00 F2 D8 01 FD 5B	06 C7 04 00 F2 D8 FD 65
Prompt for successful decoding	on：07 C6 04 08 00 38 01 FE EE off：07 C6 04 08 00 38 00 FE EF	05 C7 04 00 38 FE F8
End character setting	disable:08 C6 04 08 00 F2 05 00 FE 2F CR LF:08 C6 04 08 00 F2 05 01 FE 2E CR:08 C6 04 08 00 F2 05 02 FE 2D	06 C7 04 00 F2 05 FE 38

	TAB: 08 C6 04 08 00 F2 05 03 FE 2C CR CR：08 C6 04 08 00 F2 05 04 FE 2B CR LF CR LF：08 C6 04 08 00 F2 05 05 FE 2A	
Successful decoding indicator	disable: 08 C6 04 08 00 F2 0B 00 FE 29 enable: 08 C6 04 08 00 F2 0B 01 FE 28	06 C7 04 00 F2 0B FE 32
Decoding indicator control	Always off: 08 C6 04 08 00 F2 CB 00 FD 69 Always on: 08 C6 04 08 00 F2 CB 01 FD 68	06 C7 04 00 F2 CB FD 72
Mute	disable: 08 C6 04 08 00 F2 0C 00 FE 28 enable:: 08 C6 04 08 00 F2 0C 01 FE 27	06 C7 04 00 F2 0C FE 31
Power-on prompt	disable: 08 C6 04 08 00 F2 0D 00 FE 27 enable:: 08 C6 04 08 00 F2 0D 01 FE 26	06 C7 04 00 F2 0D FE 30
Prompt tone for scanning setting code	disable: 08 C6 04 08 00 F2 0E 00 FE 26 enable: 08 C6 04 08 00 F2 0E 01 FE 25	06 C7 04 00 F2 0E FE 2F
Transmission of "don't read" messages	on：07 C6 04 08 00 5E 01 FE C8 off：07 C6 04 08 00 5E 00 FE C9	05 C7 04 00 5E FE D2
Allow scanning setting barcodes	on：07 C6 04 08 00 EC 01 FE 3A off：07 C6 04 08 00 EC 00 FE 3B	05 C7 04 00 EC FE 44
Send setting code content	on：08 C6 04 08 00 F1 71 01 FD C3 off：08 C6 04 08 00 F1 71 00 FD C4	06 C7 04 00 F1 71 FD CD
VAT invoice automatic identification output	disable: 08 C6 04 08 00 F2 08 00 FE 2C enable: 08 C6 04 08 00 F2 08 01 FE 2B	06 C7 04 00 F2 08 FE 35
invoice type	Special invoice: 08 C6 04 08 00 F2 AA 00 FD 8A Ordinary invoice: 08 C6 04 08 00 F2 AA 01 FD 89	06 C7 04 00 F2 AA FD 93
Prefix/suffix value Prefix Suffix 1 Suffix 2	Prefix string setting 31 Suffix string setting 32 33 ： 0B C6 04 08 00 69 31 68 32 6A 33 FD 52 Prefix:0x00 Suffix:0x0D 0x0A LF： 0B C6 04 08 00 69 00 68 0D 6A 0A FD D1	07 C7 04 00 69 68 6A FD F3
Scan data sending format	Raw data：07 C6 04 08 00 EB 00 FE 3C Raw data+suffix1：07 C6 04 08 00 EB 01 FE 3B	05 C7 04 00 EB FE 45

	Raw data+suffix2：07 C6 04 08 00 EB 02 FE 3A Raw data+suffix1+suffix2：07 C6 04 08 00 EB 03 FE 39 Prefix+raw data：07 C6 04 08 00 EB 04 FE 38 Prefix+raw data +suffix1：07 C6 04 08 00 EB 05 FE 37 Prefix+raw data +suffix2：07 C6 04 08 00 EB 06 FE 36 Prefix+raw data +suffix1+suffix2：07 C6 04 08 00 EB 07 FE 35	
Baud rate	1200：07 C6 04 08 00 9C 03 FE 88 2400：07 C6 04 08 00 9C 04 FE 87 4800：07 C6 04 08 00 9C 05 FE 86 9600：07 C6 04 08 00 9C 06 FE 85 19200：07 C6 04 08 00 9C 07 FE 84 38400：07 C6 04 08 00 9C 08 FE 83 57600：07 C6 04 08 00 9C 09 FE 82 115200：07 C6 04 08 00 9C 0A FE 81	05 C7 04 00 9C FE 94
Parity	odd： 07 C6 04 08 00 9E 00 FE 89 even： 07 C6 04 08 00 9E 01 FE 88 flag ： 07 C6 04 08 00 9E 02 FE 87 space：07 C6 04 08 00 9E 03 FE 86 NONE： 07 C6 04 08 00 9E 04 FE 85	05 C7 04 00 9E FE 92
Software handshake	enable：07 C6 04 08 00 9F 01 FE 87 disable：07 C6 04 08 00 9F 00 FE 88	05 C7 04 00 9F FE 91
Decode packet format	Send raw decoded data：07 C6 04 08 00 EE 00 FE 39 Send data packet to decode data： 07 C6 04 08 00 EE 01 FE 38	05 C7 04 00 EE FE 42
Host serial response timeout	0.1s: 07 C6 04 08 00 9B 01 FE 8B	05 C7 04 00 9B FE 95
Stop bit selection	1 stop bit: 07 C6 04 08 00 9D 01 FE 89 2 stop bit: 07 C6 04 08 00 9D 02 FE 88	05 C7 04 00 9D FE 93
Delay between characters	1s: 07 C6 04 08 00 6E 01 FE B8	05 C7 04 00 6E FE C2
Host character timeout	500ms:07 C6 04 08 00 EF 32 FE 06 200ms:07 C6 04 08 00 EF 14 FE 24	05 C7 04 00 EF FE 41

	50ms: 07 C6 04 08 00 EF 05 FE 33	
communication	Serial port:08 C6 04 08 00 F2 01 00 FE 33 USB KBW:08 C6 04 08 00 F2 01 01 FE 32 USB COM: 08 C6 04 08 00 F2 01 02 FE 31 HID POS:08 C6 04 08 00 F2 01 0E FE 25	06 C7 04 00 F2 01 FE 3C
PS2 mode	AUTO: 08 C6 04 08 00 F2 A6 00 FD 8E Standalone PS2: 08 C6 04 08 00 F2 A6 01 FD 8D	06 C7 04 00 F2 A6 FD 97
Lighting control	Turn on when reading:08 C6 04 08 00 F2 02 00 FE 32 Always on:08 C6 04 08 00 F2 02 01 FE 31 Always off: 08 C6 04 08 00 F2 02 02 FE 30	06 C7 04 00 F2 02 FE 3B
Aiming light control	Turn on when reading:08 C6 04 08 00 F2 03 00 FE 31 Always on:08 C6 04 08 00 F2 03 01 FE 30 Always off: 08 C6 04 08 00 F2 03 02 FE 2F	06 C7 04 00 F2 03 FE 3A
Aiming light flashes?	*flashes: 08 C6 04 08 00 F2 B8 00 FD 7C No flash: 08 C6 04 08 00 F2 B8 01 FD 7B	06 C7 04 00 F2 B8 FD 85
Sensitivity level	High high:08 C6 04 08 00 F2 04 00 FE 30 High:08 C6 04 08 00 F2 04 01 FE 2F middle:08 C6 04 08 00 F2 04 02 FE 2E Low:08 C6 04 08 00 F2 04 03 FE 2D	06 C7 04 00 F2 04 FE 39
Custom sensitivity	00:08 C6 04 08 00 F3 01 00 FE 32 01:08 C6 04 08 00 F3 01 01 FE 31 05:08 C6 04 08 00 F3 01 05 FE 2D 10:08 C6 04 08 00 F3 01 0A FE 28 15:08 C6 04 08 00 F3 01 0F FE 23	06 C7 04 00 F3 01 FE 3B
Stable induction time	500ms:08 C6 04 08 00 F3 02 05 FE 2C 1000ms:08 C6 04 08 00 F3 02 0A FE 27 300ms: 08 C6 04 08 00 F3 02 03 FE 2E	06 C7 04 00 F3 02 FE 3A
1D reverse barcode reading	disable：08 C6 04 08 00 F2 91 00 FD A3 enable：08 C6 04 08 00 F2 91 01 FD A2	06 C7 04 00 F2 91 FD AC
Output character set type	raw: 08 C6 04 08 00 F2 06 00 FE 2E GBK:08 C6 04 08 00 F2 06 01 FE 2D UNICODE:08 C6 04 08 00 F2 06 02 FE 2C	06 C7 04 00 F2 06 FE 37
Country/language	USA: 08 C6 04 08 00 F6 01 01 FE 2E	06 C7 04 00 F6 01 FE 38

keyboard layout selection	Belgium: 08 C6 04 08 00 F6 01 02 FE 2D Brazil（ABNT2）：08 C6 04 08 00 F6 01 03 FE 2C Denmark: 08 C6 04 08 00 F6 01 06 FE 29 Finland: 08 C6 04 08 00 F6 01 07 FE 28 France: 08 C6 04 08 00 F6 01 08 FE 27 Austria, Germany: 08 C6 04 08 00 F6 01 09 FE 26 Greece: 08 C6 04 08 00 F6 01 0A FE 25 Hungary: 08 C6 04 08 00 F6 01 0B FE 24 Italy: 08 C6 04 08 00 F6 01 0D FE 22 Netherlands: 08 C6 04 08 00 F6 01 0F FE 20 Norway: 08 C6 04 08 00 F6 01 10 FE 1F Poland: 08 C6 04 08 00 F6 01 11 FE 1E Portugal: 08 C6 04 08 00 F6 01 12 FE 1D Romania (standard): 08 C6 04 08 00 F6 01 13 FE 1C Russia: 08 C6 04 08 00 F6 01 14 FE 1B Slovakia: 08 C6 04 08 00 F6 01 15 FE 1A Spain: 08 C6 04 08 00 F6 01 16 FE 19 Sweden: 08 C6 04 08 00 F6 01 17 FE 18 Turkey_F: 08 C6 04 08 00 F6 01 19 FE 16 Turkey_Q: 08 C6 04 08 00 F6 01 1A FE 15 United Kingdom: 08 C6 04 08 00 F6 01 1B FE 14 Japan: 08 C6 04 08 00 F6 01 1C FE 13 Czech Republic: 08 C6 04 08 00 F6 01 1D FE 12 Thai keyboard Kedmanee: 08 C6 04 08 00 F6 01 1E FE 11 Ukraine: 08 C6 04 08 00 F6 01 1F FE 10 Arabic_101: 08 C6 04 08 00 F6 01 20 FE 0F Croatia: 08 C6 04 08 00 F6 01 21 FE 0E South Korea: 08 C6 04 08 00 F6 01 22 FE 0D Bulgaria: 08 C6 04 08 00 F6 01 23 FE 0C	
Keyboard output character time interval	0ms: 08 C6 04 08 00 F3 04 00 FE 2F 5ms: 08 C6 04 08 00 F3 04 01 FE 2E 10ms: 08 C6 04 08 00 F3 04 02 FE 2D	06 C7 04 00 F3 04 FE 38
Quick setting of keyboard output time	0ms: 08 C6 04 08 00 F2 B2 00 FD 82 10ms: 08 C6 04 08 00 F2 B2 01 FD 81	06 C7 04 00 F2 B2 FD 8B

interval	50ms: 08 C6 04 08 00 F2 B2 02 FD 80	
Keyboard output forced letter case conversion	Normal: 08 C6 04 08 00 F2 A1 00 FD 93 All uppercase : 08 C6 04 08 00 F2 A1 01 FD 92 All lowercase: 08 C6 04 08 00 F2 A1 02 FD 91 Letter case inverted: 08 C6 04 08 00 F2 A1 03 FD 90	06 C7 04 00 F2 A1 FD 9C
Keyboard type	Standard keyboard：08 C6 04 08 00 F2 B4 00 FD 80 virtual keyboard：08 C6 04 08 00 F2 B4 01 FD 7F	06 C7 04 00 F2 B4 FD 89
STX and ETX setting	disable：08 C6 04 08 00 F2 B7 00 FD 7D STX(prefix)：08 C6 04 08 00 F2 B7 01 FD 7C ETX(suffix1)：08 C6 04 08 00 F2 B7 02 FD 7B STX(prefix)+ETX(suffix1)：08 C6 04 08 00 F2 B7 03 FD 7A	06 C7 04 00 F2 B7 FD 86
ASCII Control character output mode selection	Output function keys:08 C6 04 08 00 F2 AD 00 FD 87 Output Ctrl key combination:08 C6 04 08 00 F2 AD 01 FD 86 ALTOutput control characters:08 C6 04 08 00 F2 AD 02 FD 85 Output Enter、DownArrow:08 C6 04 08 00 F2 AD 03 FD 84	06 C7 04 00 F2 AD FD 90
1D code global switch	disable：08 C6 04 08 00 F2 11 00 FE 23 enable：08 C6 04 08 00 F2 11 01 FE 22	06 C7 04 00 F2 11 FE 2C
2D code global switch	disable：08 C6 04 08 00 F2 50 00 FD E4 enable：08 C6 04 08 00 F2 50 01 FD E3	06 C7 04 00 F2 50 FD ED
all codes global switch	disable：08 C6 04 08 00 F2 90 00 FD A4 enable：08 C6 04 08 00 F2 90 01 FD A3	06 C7 04 00 F2 90 FD AD
Hide header data	disable：08 C6 04 08 00 F2 C6 00 FD 6E enable：08 C6 04 08 00 F2 C6 01 FD 6D	06 C7 04 00 F2 C6 FD 77
Hide the middle data	disable：08 C6 04 08 00 F2 C7 00 FD 6D enable：08 C6 04 08 00 F2 C7 01 FD 6C	06 C7 04 00 F2 C7 FD 76
Hide the data at the end	disable：08 C6 04 08 00 F2 C8 00 FD 6C enable：08 C6 04 08 00 F2 C8 01 FD 6B	06 C7 04 00 F2 C8 FD 75
Enable/disable the insertion of custom data	disable：08 C6 04 08 00 F2 DE 00 FD 56 enable：08 C6 04 08 00 F2 DE 01 FD 55	06 C7 04 00 F2 DE FD 5F
delay for same code	1500ms:08 C6 04 08 00 F3 03 0F FE 21 500ms:08 C6 04 08 00 F3 03 05 FE 2B	06 C7 04 00 F3 03 FE 39

	300ms: 08 C6 04 08 00 F3 03 03 FE 2D	
Quick setting for delay of same code	No delay：08 C6 04 08 00 F2 C9 00 FD 6B 1s：08 C6 04 08 00 F2 C9 01 FD 6A 3s：08 C6 04 08 00 F2 C9 03 FD 68 5s：08 C6 04 08 00 F2 C9 05 FD 66 7s：08 C6 04 08 00 F2 C9 07 FD 64 Infinite delay (prohibited to read the same code）：08 C6 04 08 00 F2 C9 09 FD 62	06 C7 04 00 F2 C9 FD 74
Set multiple prefixes consecutively	08 C6 04 08 00 F3 10 00 FE 23	06 C7 04 00 F3 10 FE 2C
Set multiple suffixes consecutively	08 C6 04 08 00 F3 11 00 FE 22	06 C7 04 00 F3 11 FE 2B
Finish setting multiple prefixes and suffixes consecutively	08 C6 04 08 00 FF F6 00 FD 31	06 C7 04 00 FF F6 FD 3A
Set multiple prefix and suffix data transmission formats	Raw data+multiple suffix：07 C6 04 08 00 EB 08 FE 34 multiple prefix +raw data：07 C6 04 08 00 EB 09 FE 33 multiple prefix +raw data +multiple suffix：07 C6 04 08 00 EB 0A FE 32	05 C7 04 00 EB FE 45
Heartbeat control	disable：08 C6 04 08 00 F2 CD 00 FD 67 no heartbeat ACK：08 C6 04 08 00 F2 CD 01 FD 66 heartbeat ACK：08 C6 04 08 00 F2 CD 02 FD 65	06 C7 04 00 F2 CD FD 70
UPC-A		
UPC-A switch	disable：07 C6 04 08 00 01 00 FF 26 enable：07 C6 04 08 00 01 01 FF 25	05 C7 04 00 01 FF 2F
Transmit UPC-A check digit	disable：07 C6 04 08 00 28 00 FE FF enable：07 C6 04 08 00 28 01 FE FE	05 C7 04 00 28 FF 08
Additional code	None (00)：07 C6 04 08 00 10 00 FF 17 enable（01）：07 C6 04 08 00 10 01 FF 16 Automatic distinction (02)：07 C6 04 08 00 10 02 FF 15	05 C7 04 00 10 FF 20
Front code	None(00)：07 C6 04 08 00 22 00 FF 05 System flag（01）：07 C6 04 08 00 22 01 FF 04	05 C7 04 00 22 FF 0E

	Country, system flag (02)：07 C6 04 08 00 22 02 FF 03	
UPC-A 2-digit additional code	enable：08 C6 04 08 00 F2 40 01 FD F3 disable：08 C6 04 08 00 F2 40 00 FD F4	06 C7 04 00 F2 40 FD FD
UPC-A 5-digit additional code	enable：08 C6 04 08 00 F2 41 01 FD F2 disable：08 C6 04 08 00 F2 41 00 FD F3	06 C7 04 00 F2 41 FD FC
UPC-A Additional code must be read	enable：08 C6 04 08 00 F2 42 01 FD F1 disable：08 C6 04 08 00 F2 42 00 FD F2	06 C7 04 00 F2 42 FD FB
UPC-E		
UPC-E switch	disable：07 C6 04 08 00 02 00 FF 25 enable：07 C6 04 08 00 02 01 FF 24	05 C7 04 00 02 FF 2E
Check digit transmission	disable：07 C6 04 08 00 29 00 FE FE enable：07 C6 04 08 00 29 01 FE FD	05 C7 04 00 29 FF 07
Additional code	None(00)：07 C6 04 08 00 10 00 FF 17 enable（01）：07 C6 04 08 00 10 01 FF 16 Automatic distinction (02)：07 C6 04 08 00 10 02 FF 15	05 C7 04 00 10 FF 20
Front code	None(00)：07 C6 04 08 00 23 00 FF 04 System flag（01）：07 C6 04 08 00 23 01 FF 03 Country, system flag (02)：07 C6 04 08 00 23 02 FF 02	05 C7 04 00 23 FF 0D
UPC-E Turn to UPC-A	disable：07 C6 04 08 00 25 00 FF 02 enable：07 C6 04 08 00 25 01 FF 01	05 C7 04 00 25 FF 0B
UPC-E 2-digit additional code	enable：08 C6 04 08 00 F2 3D 01 FD F6 disable：08 C6 04 08 00 F2 3D 00 FD F7	06 C7 04 00 F2 3D FE 00
UPC-E 5-digit additional code	enable：08 C6 04 08 00 F2 3E 01 FD F5 disable：08 C6 04 08 00 F2 3E 00 FD F6	06 C7 04 00 F2 3E FD FF
UPC-E must read the additional code	enable：08 C6 04 08 00 F2 3F 01 FD F4 disable：08 C6 04 08 00 F2 3F 00 FD F5	06 C7 04 00 F2 3F FD FE
UPC-E1	disable：08 C6 04 08 00 F2 15 00 FE 1F enable：08 C6 04 08 00 F2 15 01 FE 1E	06 C7 04 00 F2 15 FE 28
EAN-8		

EAN-8 switch	disable：07 C6 04 08 00 04 00 FF 23 enable：07 C6 04 08 00 04 01 FF 22	05 C7 04 00 04 FF 2C
Additional code	None(00)：07 C6 04 08 00 10 00 FF 17 enable（01）：07 C6 04 08 00 10 01 FF 16	05 C7 04 00 10 FF 20
EAN-8 2-digit additional code	enable：08 C6 04 08 00 F2 37 01 FD FC disable：08 C6 04 08 00 F2 37 00 FD FD	06 C7 04 00 F2 37 FE 06
EAN-8 5-digit additional code	enable：08 C6 04 08 00 F2 38 01 FD FB disable：08 C6 04 08 00 F2 38 00 FD FC	06 C7 04 00 F2 38 FE 05
EAN-8 must read the additional code	enable：08 C6 04 08 00 F2 39 01 FD FA disable：08 C6 04 08 00 F2 39 00 FD FB	06 C7 04 00 F2 39 FE 04
EAN-8 send check digit	disable：08 C6 04 08 00 F2 80 00 FD B4 enable：08 C6 04 08 00 F2 80 01 FD B3	06 C7 04 00 F2 80 FD BD
EAN-13		
EAN-13 switch	disable：07 C6 04 08 00 03 00 FF 24 enable：07 C6 04 08 00 03 01 FF 23	05 C7 04 00 03 FF 2D
EAN-13 2-digit additional code	enable：08 C6 04 08 00 F2 3A 01 FD F9 disable：08 C6 04 08 00 F2 3A 00 FD FA	06 C7 04 00 F2 3A FE 03
EAN-13 5-digit additional code	enable：08 C6 04 08 00 F2 3B 01 FD F8 disable：08 C6 04 08 00 F2 3B 00 FD F9	06 C7 04 00 F2 3B FE 02
EAN-13 must read the additional code	enable：08 C6 04 08 00 F2 3C 01 FD F7 disable：08 C6 04 08 00 F2 3C 00 FD F8	06 C7 04 00 F2 3C FE 01
EAN-13 send check digit	disable：08 C6 04 08 00 F2 16 00 FE 1E enable：08 C6 04 08 00 F2 16 01 FE 1D	06 C7 04 00 F2 16 FE 27
additional code	None(00)：07 C6 04 08 00 10 00 FF 17 enable（01）：07 C6 04 08 00 10 01 FF 16	05 C7 04 00 10 FF 20
Bookland EAN(ISBN)		
ISBN switch	disable：07 C6 04 08 00 53 00 FE D4 enable：07 C6 04 08 00 53 01 FE D3	05 C7 04 00 53 FE DD
format	Output 10 digits:08 C6 04 08 00 F1 40 00 FD F5 Output 13 digits:08 C6 04 08 00 F1 40 01 FD F4	06 C7 04 00 F1 40 FD FE
Code 128		
Code 128 switch	disable：07 C6 04 08 00 08 00 FF 1F	05 C7 04 00 08 FF 28

	enable：07 C6 04 08 00 08 01 FF 1E	
Code 128 length setting	1 single length： 06：0B C6 04 08 00 F5 04 06 F5 05 00 FD 2A 2 separate lengths： 04 and 06：0B C6 04 08 00 F5 04 06 F5 05 04 FD 26 Length in a specific range: 04--09：0B C6 04 08 00 F5 04 04 F5 05 09 FD 23 Any length： 0B C6 04 08 00 F5 04 00 F5 05 00 FD 30	08 C7 04 00 F5 04 F5 05 FD 3A
GS1-128		
GS1-128 switch	disable：07 C6 04 08 00 0E 00 FF 19 enable：07 C6 04 08 00 0E 01 FF 18	05 C7 04 00 0E FF 22
GS1-128 send check character	enable：08 C6 04 08 00 F2 36 01 FD FD disable：08 C6 04 08 00 F2 36 00 FD FE	06 C7 04 00 F2 36 FE 07
GS1-128 length setting	1 single length： 06：0B C6 04 08 00 F5 06 06 F5 07 00 FD 26 2 separate lengths： 04 and 06：0B C6 04 08 00 F5 06 06 F5 07 04 FD 22 Length within a specific range： 04--09：0B C6 04 08 00 F5 06 04 F5 07 09 FD 1F Any length ： 0B C6 04 08 00 F5 06 00 F5 07 00 FD 2C	08 C7 04 00 F5 06 F5 07 FD 36
ISBT 128		
ISBT 128	disable：07 C6 04 08 00 54 00 FE D3 enable：07 C6 04 08 00 54 01 FE D2	05 C7 04 00 54 FE DC
Code 39		

Code 39	disable：07 C6 04 08 00 00 00 FF 27 enable：07 C6 04 08 00 00 01 FF 26	05 C7 04 00 00 FF 30
Code 39 length setting	1 single length： Length 06： 09 C6 04 08 00 12 06 13 00 FE FA Length 16: 09 C6 04 08 00 12 10 13 00 FE F0 Length 14: 09 C6 04 08 00 12 0E 13 00 FE F2 2 separate lengths： 02 and 04： 09 C6 04 08 00 12 04 13 02 FE FA 16 and 14： 09 C6 04 08 00 12 10 13 0E FE E2 Length within a specific range: 02--09： 09 C-6 04 08 00 12 02 13 09 FE F5 0x02--0x37(55) default： 09 C6 04 08 00 12 02 13 37 FE C7 14--15: 09 C6 04 08 00 12 0E 13 0F FE E3 15--16: 09 C6 04 08 00 12 0F 13 10 FE E1 Any length：09 C6 04 08 00 12 00 13 00 FE F0	06 C7 04 00 12 13 FF 0A
Code 39 check digit verification	disable：07 C6 04 08 00 30 00 FE F7 enable：07 C6 04 08 00 30 01 FE F6	05 C7 04 00 30 FF 00
Send Code 39 check digit	disable：07 C6 04 08 00 2B 00 FE FC enable：07 C6 04 08 00 2B 01 FE FB	05 C7 04 00 2B FF 05
Code 39 Full ASCII	07 C6 04 08 00 11 01 FF 15	05 C7 04 00 11 FF 1F
Code 39 transmission start character and stop character	disable：08 C6 04 08 00 F2 30 00 FE 04 enable：08 C6 04 08 00 F2 30 01 FE 03	06 C7 04 00 F2 30 FE 0D
Convert Code 39 to Code 32 (Italian Medical Code)	disable：07 C6 04 08 00 56 00 FE D1 enable：07 C6 04 08 00 56 01 FE D0	05 C7 04 00 56 FE DA
Code 32 prefix	disable：07 C6 04 08 00 E7 00 FE 40	05 C7 04 00 E7 FE 49

	enable：07 C6 04 08 00 E7 01 FE 3F	
Code93		
Code 93	disable：07 C6 04 08 00 09 00 FF 1E enable：07 C6 04 08 00 09 01 FF 1D	05 C7 04 00 09 FF 27
Code 93 length setting	1 single length： 04：09 C6 04 08 00 1A 041B 00 FE EC 2 separate lengths： 04 and 06：09 C6 04 08 00 1A 06 1B 04 FE E6 Length within a specific range: 04--09：09 C6 04 08 00 1A 04 1B 09 FE E3 Any length ：09 C6 04 08 00 1A 00 1B 00 FE F0	06 C7 04 00 1A 1B FE FA
Code11		
Code 11 switch	disable：07 C6 04 08 00 0A 00 FF 1D enable：07 C6 04 08 00 0A 01 FF 1C	05 C7 04 00 0A FF 26
Set the length of Code 11 barcode	1 single length： 06：09 C6 04 08 00 1C 06 1D 00 FE E6 2 separate lengths： 04 and 06：09 C6 04 08 00 1C 06 1D 04 FE E2 Length within a specific range: 04--09：09 C6 04 08 00 1C 04 1D 09 FE DF Any length ：09 C6 04 08 00 1C 00 1D 00 FE EC	06 C7 04 00 1C 1D FE F6
Code 11 check digit verification	None：07 C6 04 08 00 34 00 FE F3 1digit：07 C6 04 08 00 34 01 FE F2 2digits：07 C6 04 08 00 34 02 FE F1	05 C7 04 00 34 FE FC
Send Code 11 check digit	disable：07 C6 04 08 00 2F 00 FE F8 enable：07 C6 04 08 00 2F 01 FE F7	05 C7 04 00 2F FF 01
Interleaved 2 of 5		
Interleaved 2 of 5/ITF/Cross 25 code system switch	disable：07 C6 04 08 00 06 00 FF 21 enable：07 C6 04 08 00 06 01 FF 20	05 C7 04 00 06 FF 2A
Set the scan data length of Interleaved 2 of 5 barcode	1 single length： 06：09 C6 04 08 00 16 06 17 00 FE F2	06 C7 04 00 16 17 FF 02

	2 separate lengths： 04 and 06：09 C6 04 08 00 16 06 17 04 FE EE Length within a specific range: 04--09：09 C6 04 08 00 16 04 17 09 FE EB Any length ：09 C6 04 08 00 16 00 17 00 FE F8	
Interleaved 2 of 5 barcode check digit verification	disable：07 C6 04 08 00 31 00 FE F6 enable：07 C6 04 08 00 31 01 FE F5	05 C7 04 00 31 FE FF
Send Interleaved 2 of 5 check digit	disable：07 C6 04 08 00 2C 00 FE FB enable：07 C6 04 08 00 2C 01 FE FA	05 C7 04 00 2C FF 04
Industrial 2 of 5		
Industrial 2 of 5	disable：07 C6 04 08 00 05 00 FF 22 enable：07 C6 04 08 00 05 01 FF 21	05 C7 04 00 05 FF 2B
Set the scan data length of Industrial 2 of 5 barcode	1 separate lengths： 06：09 C6 04 08 00 14 06 15 00 FE F6 2 separate lengths： 04 and 06：09 C6 04 08 00 14 06 15 04 FE F2 Length in a specific range： 04--09：09 C6 04 08 00 14 04 15 09 FE EF Any lenth ：09 C6 04 08 00 14 00 15 00 FE FC	06 C7 04 00 14 15 FF 06
Matrix 25		
Matrix 25 switch	disable：08 C6 04 08 00 F2 20 00 FE 14 enable：08 C6 04 08 00 F2 20 01 FE 13	06 C7 04 00 F2 20 FE 1D
Matrix 25 Check Digit Verification	disable：08 C6 04 08 00 F2 21 00 FE 13 enable：08 C6 04 08 00 F2 21 01 FE 12	06 C7 04 00 F2 21 FE 1C
Transmit Matrix 25 check character	disable：08 C6 04 08 00 F2 22 00 FE 12 enable：08 C6 04 08 00 F2 22 01 FE 11	06 C7 04 00 F2 22 FE 1B
Matrix 25 Length setting	1 separate lengths： 06：0B C6 04 08 00 F5 00 06 F5 01 00 FD 32 2 separate lengths： 04 and 06：0B C6 04 08 00 F5 00 06 F5 01 04 FD 2E	08 C7 04 00 F5 00 F5 01 FD 42

	Length in a specific range: 04--09：0B C6 04 08 00 F5 00 04 F5 01 09 FD 2B Any length ： 0B C6 04 08 00 F5 00 00 F5 01 00 FD 38	
Standard 25		
Standard 25/IATA 25/ standard 25	disable：08 C6 04 08 00 F2 23 00 FE 11 enable：08 C6 04 08 00 F2 23 01 FE 10	06 C7 04 00 F2 23 FE 1A
Standard 25 Length setting	1 separate lengths： 06：09 C6 04 08 00 F5 02 06 F5 03 00 FD 2E 2 separate lengths： 04 and 06：09 C6 04 08 00 F5 02 06 F5 03 04 FD 2A Length in a specific range:04--09：09 C6 04 08 00 F5 02 04 F5 03 09 FD 27 Any length ：09 C6 04 08 00 F5 02 00 F5 03 00 FD 34	08 C7 04 00 F5 02 F5 03 FD 3E
Codabar		
Codabar enable/disable	disable：07 C6 04 08 00 07 00 FF 20 enable：07 C6 04 08 00 07 01 FF 1F	05 C7 04 00 07 FF 29
Set the scan length of Codabar barcode	1 separate lengths： 04：09 C6 04 08 00 18 04 19 00 FE F0 2 separate lengths： 09 C6 04 08 00 18 05 19 04 FE EB Length in a specific range:: 04--09：09 C6 04 08 00 18 04 19 09 FE E7 Any length ：09 C6 04 08 00 18 00 19 00 FE F4	06 C7 04 00 18 19 FE FE
Codabar check	Enable：08 C6 04 08 00 F2 4C 01 FD E7 Disable：08 C6 04 08 00 F2 4C 00 FD E8	06 C7 04 00 F2 4C FD F1
Codabar Send check character	Enable：08 C6 04 08 00 F2 4D 01 FD E6 Disable：08 C6 04 08 00 F2 4D 00 FD E7	06 C7 04 00 F2 4D FD F0
NOTIS Transmission format	Disable：07 C6 04 08 00 37 00 FE F0 Enable：07 C6 04 08 00 37 01 FE EF	05 C7 04 00 37 FE F9

Start and stop format	ABCD/ABCD：08 C6 04 08 00 F2 31 00 FE 03 ABCD/TN*E：08 C6 04 08 00 F2 31 01 FE 02	06 C7 04 00 F2 31 FE 0C
Start and stop letter case settings	uppercase letter：08 C6 04 08 00 F2 32 00 FE 02 Lower case letters：08 C6 04 08 00 F2 32 01 FE 01	06 C7 04 00 F2 32 FE 0B
MSI /MSI PLESSEY		
MSI /MSI PLESSEY Switch	Disable：07 C6 04 08 00 0B 00 FF 1C Enable：07 C6 04 08 00 0B 01 FF 1B	05 C7 04 00 0B FF 25
Set MSI length	A single length： 04：09 C6 04 08 00 1E 04 1F 00 FE E4 Two separate lengths: 04 and 05：09 C6 04 08 00 1E 05 1F 04 FE DF Length within a specific range: 02--09：09 C6 04 08 00 1E 02 1F 09 FE DD Any length ：09 C6 04 08 00 1E 00 1F 00 FE E8	06 C7 04 00 1E 1F FE F2
MSI Checking digit	1bits: 07 C6 04 08 00 32 00 FE F5 2bits:07 C6 04 08 00 32 01 FE F4	05 C7 04 00 32 FE FE
Send MSI Checking digit	Disable：07 C6 04 08 00 2E 00 FE F9 Enable：07 C6 04 08 00 2E 01 FE F8	05 C7 04 00 2E FF 02
GS1 DataBar(RSS)		
GS1 DataBar(RSS) Switch	Disable：08 C6 04 08 00 F0 52 00 FD E4 Enable：08 C6 04 08 00 F0 52 01 FD E3	06 C7 04 00 F0 52 FD ED
PDF417		
PDF417	Enable：07 C6 04 08 00 0F 01 FF 17 Disable：07 C6 04 08 00 0F 00 FF 18	05 C7 04 00 0F FF 21
QRCode		
QRCode Switch	Enable：08 C6 04 08 00 F0 25 01 FE 10 Disable：08 C6 04 08 00 F0 25 00 FE 11	06 C7 04 00 F0 25 FE 1A
Qr positive/reverse	Only positive phase：08 C6 04 08 00 F2 67 00 FD CD Only read reverse：08 C6 04 08 00 F2 67 01 FD CC	06 C7 04 00 F2 67 FD D6

	Both：08 C6 04 08 00 F2 67 02 FD CB	
MicroQRCode	Enable：08 C6 04 08 00 F1 3D 01 FD F7 Disable：08 C6 04 08 00 F1 3D 00 FD F8	06 C7 04 00 F1 3D FE 01
DataMatrix		
DataMatrix	Enable：08 C6 04 08 00 F0 24 01 FE 11 Disable：08 C6 04 08 00 F0 24 00 FE 12	06 C7 04 00 F0 24 FE 1B
Normal/reverse reading	Only positive phase: 08 C6 04 08 00 F2 6B 00 FD C9 Only read reverse: 08 C6 04 08 00 F2 6B 01 FD C8 Both : 08 C6 04 08 00 F2 6B 02 FD C7	06 C7 04 00 F2 6B FD D2
MaxiCode		
MaxiCode	Disable：08 C6 04 08 00 F0 26 00 FE 10 Enable：08 C6 04 08 00 F0 26 01 FE 0F	06 C7 04 00 F0 26 FE 19
Aztec		
Aztec	Disable：08 C6 04 08 00 F0 28 00 FE 0E Enable：08 C6 04 08 00 F0 28 01 FE 0D	06 C7 04 00 F0 28 FE 17
Han Xin Code		
Han Xin Code	Disable：08 C6 04 08 00 F0 2F 00 FE 07 Enable：08 C6 04 08 00 F0 2F 01 FE 06	06 C7 04 00 F0 2F FE 10