

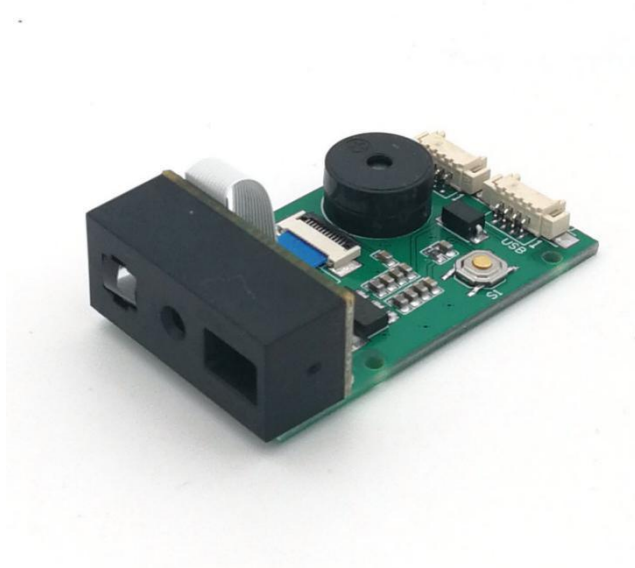


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# **GM67 Bar Code Reader Module User Manual**



Hangzhou Grow Technology Co., Ltd.  
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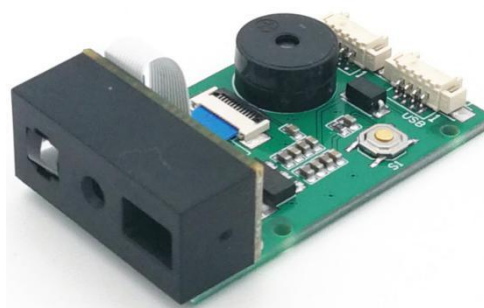
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# 1 Introduction of Module

## 1.1 Introduction

GM67 1D 2D barcode scanner, with high integration and compact size, can be easily integrated into various industrial equipment and application environments. It can not only read various 1d barcode easily, but also read 2d barcode at high speed. It has a very high scanning rate for linear bar codes. For barcode on paper and screen, can also be easily scanned.

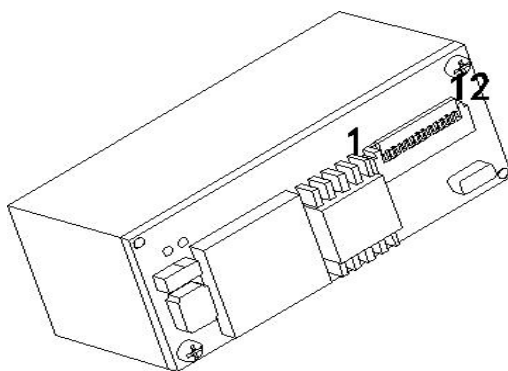
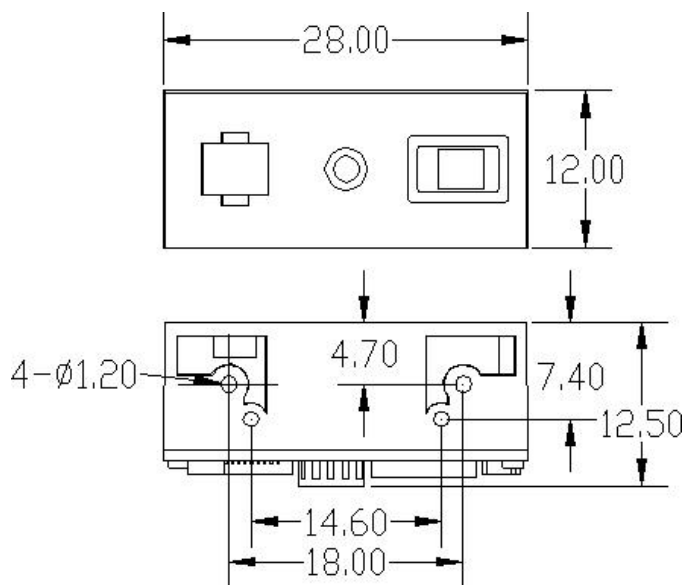


## 1.2 Technical Specification

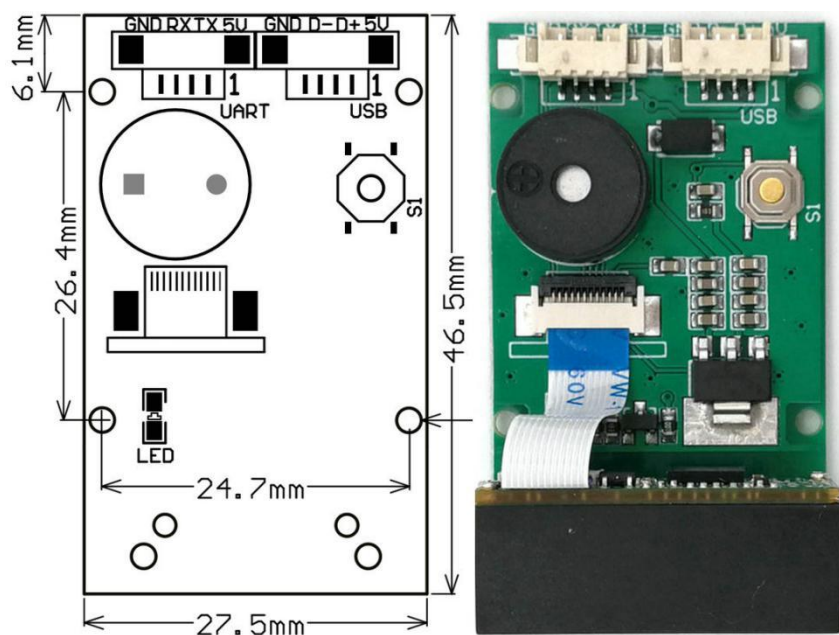
|                         |                      |                                                                   |                                                          |                  |                 |  |
|-------------------------|----------------------|-------------------------------------------------------------------|----------------------------------------------------------|------------------|-----------------|--|
| Scanning<br>Performance | Scan Mode            |                                                                   | 640*480 CMOS                                             |                  |                 |  |
|                         | Lighting             |                                                                   | White LED                                                |                  |                 |  |
|                         | Collimate            |                                                                   | Red LED                                                  |                  |                 |  |
|                         | Read<br>Code<br>Type | 2D                                                                | QR Code, Data Matrix, PDF417,Aztec,Micro QR,Micro PDF417 |                  |                 |  |
|                         |                      | 1D                                                                | EAN,UPC,Code 39,Code 93,Code 128,UCC/EAN 128, Codabar,   |                  |                 |  |
|                         |                      |                                                                   | Interleaved 2 of 5, ITF-6,ITF-14,ISBN,ISSN, MSI-Plessey  |                  |                 |  |
|                         |                      |                                                                   | GS1 Databar ,Code 11,Industrial 25,                      |                  |                 |  |
|                         |                      |                                                                   | Standard 25,Plessey, Matrix 2 of 5                       |                  |                 |  |
|                         | Accuracy of reading  |                                                                   | ≥5mil                                                    |                  |                 |  |
|                         | Depth<br>of Field    | EAN-13                                                            | 60mm-220mm                                               |                  | (13mil)         |  |
|                         |                      | Code 39                                                           | 40mm-90mm                                                |                  | (5mil 10 byte)  |  |
|                         |                      | QR Code                                                           | 30mm-220mm                                               |                  | (20mil 16 byte) |  |
|                         |                      | Data Marix                                                        | 40mm-110mm                                               |                  | (10mil 20 byte) |  |
| PDF417                  |                      | 30mm-130mm                                                        |                                                          | (6.67mil 7 byte) |                 |  |
| Contrast                |                      | ≥25%                                                              |                                                          |                  |                 |  |
| Scanning angle          |                      | Intersection angle 360°,Elevation ± 55°<br>Deflection angle ± 55° |                                                          |                  |                 |  |

|                                         |                       |                                                       |
|-----------------------------------------|-----------------------|-------------------------------------------------------|
|                                         | Viewing Angle         | D:42°    H:34°    V:26°                               |
| Mechanical/<br>Electrical<br>Parameters | Interface             | TTL-232    ,    USB    (HID-KBW, Virtual serial port) |
|                                         | Dimension             | 27.5(W)*46.5(D)*14(H)mm                               |
|                                         | Operating Voltage     | DC 5 V                                                |
|                                         | Operating Current     | 180mA                                                 |
|                                         | Standby Current       | USB:25mA; TTL:10mA                                    |
| Environmental<br>Parameters             | Operating Temperature | -20℃~+50℃                                             |
|                                         | Storage Temperature   | -40℃~+70℃                                             |
|                                         | Operating Humidity    | 5%~95%（Non-Condensing）                                |
|                                         | Environmental Light   | 0~100000LUX                                           |

### 1.3 Dimension (mm)



## Circuit Board Diagram:



## 1.4 Scan Head Definition

The cable is 12PIN directly connected with FPC flexible line, with an interval of 0.5mm

| PIN   | Input/Output | Definition | Introductions                                      |
|-------|--------------|------------|----------------------------------------------------|
| PIN 1 | Power        | VCC        | Input+3.3V                                         |
| PIN 2 | Power        | VCC        | Input+3.3V                                         |
| PIN 3 | Ground       | GND        | -                                                  |
| PIN 4 | Input        | RX         | Serial port receiver signal                        |
| PIN 5 | Output       | TX         | Serial port send signal                            |
| PIN 6 | Input        | D-         | USB : D-singal                                     |
| PIN 7 | Output       | D+         | USB : D+singal                                     |
| PIN 8 | Ground       | GND        | -                                                  |
| PIN 9 | Output       | BEEPER     | sfn output, low level when free                    |
| PIN10 | Output       | DLED       | Decoding success light,<br>low level when free     |
| PIN11 | -            | NC         | -                                                  |
| PIN12 | Input        | TRIG       | Weak Pull-up,<br>Low level trigger engine decoding |

## 1.5 Circuit Board Communication Interface

### UART Communication interface definition:

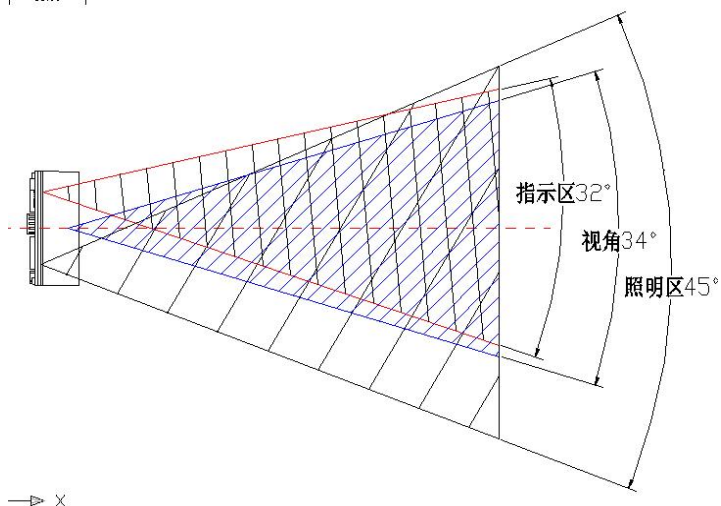
| Pin | Name | Definition  | Description                    |
|-----|------|-------------|--------------------------------|
| 1   | 5V   | Power Input | Power input 5V                 |
| 2   | TX   | Out         | Data output. TTL logical level |
| 3   | RX   | In          | Data input. TTL logical level  |
| 4   | GND  | -           | Signal ground                  |

### USB Communication interface definition:

| Pin | Name | Definition  | Description     |
|-----|------|-------------|-----------------|
| 1   | 5V   | Power Input | Power input 5V  |
| 2   | D+   | Out         | USB data output |
| 3   | D-   | In          | USB data input  |
| 4   | GND  | -           | Signal ground   |

## 1.6 Scanning Area Map

Indicator area 32° , Visual angle 34° , lighting area 45°



## 1.7 Readable Barcode Type

| Type               | Readable | Default |
|--------------------|----------|---------|
| UPC/EAN            | ✓        | ✓       |
| Code 128/EAN128    | ✓        | ✓       |
| GS1-128            | ✓        | ✓       |
| ISBT-128           | ✓        | ✓       |
| Standard 2 of 5    | ✓        | x       |
| Interleaved 2 of 5 | ✓        | ✓       |
| Industrial 2 of 5  | ✓        | x       |
| Matrix 2 of 5      | ✓        | x       |
| Code 39            | ✓        | ✓       |
| Code 32            | ✓        | x       |
| Code 93            | ✓        | x       |
| Code 11            | ✓        | x       |
| Codabar            | ✓        | x       |
| PLESSEY            | ✓        | x       |

|              |   |   |
|--------------|---|---|
| MSI          | ✓ | × |
| GS1 Databar  | ✓ | × |
| ITF-14       | ✓ | × |
| QR code      | ✓ | ✓ |
| Data Matrix  | ✓ | ✓ |
| PDF417       | ✓ | ✓ |
| Aztec        | ✓ | × |
| Micro QR     | ✓ | ✓ |
| Micro PDF417 | ✓ | ✓ |

## 2 Factory Mode Information

### 2.1 Factory Default Configuration



Factory default setting

### 2.2 Setup Code



\*Setup code on



Off

## 3 Communication Interface

### 3.1 Serial Port

It's default and common to connect module and mainframe(such as PC, POS) by serial communication interface. Make sure communication parameter for module and mainframe are same, then it will communicate smooth and correctly. **Serial port related configuration: Baud rate:9600, Data bit:8, Verification: No, Stop bit:1**



TTL 232 Interface

#### 3.1.1 Baud rate



1200bps



2400bps



4800bps



\*9600bps(Default)



19200bps



38400bps



57600bps



115200bps



### 3.1.2 Parity Bit



Odd number



Even number



\*No parity

### 3.1.3 Stop Bit



\*1 bit stop bit



2 bit stop bit

### 3.1.4 Software Shake Hand



Forbid ACK/NAK



\*Allow ACK/NAK

## 3.2 USB KBW



USB KBW Keyboard

## 3.3 USB COM Keyboard



USB COM

## 4 Read Mode

### 4.1 Manual Mode

#### 4.1.1 Button Holding Mode

Set to button holding mode, press the button to trigger reading, and release the button to end reading. If the reading is successful or the reading time exceeds the single reading time, the reading will be finished.



**Manual Mode- Button Holding**

#### 4.1.2 Button Trigger Mode

Set to the button trigger mode, press the button to start reading, release the button, read will not stop. If the reading is successful or the reading time exceeds the single reading time, the reading will be finished.



**Manual Mode- Button Trigger**

### 4.2 Continuous Mode(Default)

On this mode, reading module read code continuous and automatic. Read successfully or the reading time exceeds the single reading time,the reading will be finished,and automatically trigger the next reading.



**\*Continuous Mode**

### 4.2.1 Break Time Settlement

Time between two read.

Default:500ms, Unit:100ms, Range:0-9900ms

You can set the break time by scanning the bar code, example:

Set 0.5ms, first scan the bar code below. Then scan the “0” and “5” bar code in the Digital Setting Code (Appendix 1).



**Break time settlement**

## 4.3 Induction Mode

In automatic sensing mode, the reading engine detects the brightness of the surrounding environment. When the brightness changes, module will begin to read, read successfully or the reading time exceeds the single reading time, the reading will be finished. Regardless of the last read success or failure, the module will be redetects the brightness of the surrounding environment.



**Induction Mode**

### 4.3.1 Stable Induction Time

Stable time before entering the test environment. Default: 500ms, Unit:100ms, Range:0-9900ms

You can set the stable time by scanning the bar code, example:

Set 200ms, first scan the bar code below. Then scan the “0” and “2” bar code in the Digital Setting Code (Appendix 1).

Set 1500ms, first scan the bar code below. Then scan the “1” and “5” bar code in the Digital Setting Code (Appendix 1).



Stable Induction Time

#### 4.3.2 Sensitivity Rating Setting

There are three levels of sensitivity to choose from, default: high sensitivity.



\*High Sensitivity



Medium Sensitivity



Low Sensitivity

#### 4.4 Host Mode

Through the instruction to trigger the reading engine, and it can end the reading by instruction, read successfully or the reading time exceeds the single reading time, the reading will be finished.



Host Mode

#### 4.5 Single Scan Time

This parameter is the duration of a single decoding. Time from 0.5s to 25.5s, step size 0.1s. **Default 3s.** Example:

Set 0.5s, first scan the bar code below. Then scan the “0”, “0” and “5” bar code in the Digital Setting Code (Appendix 1).

Set 10.5s, first scan the bar code below. Then scan the “1”, “0” and “5” bar code in the Digital Setting Code (Appendix 1).



Single scan time

### 4.5.1 Single Scan Time Quickly Set Up



Infinite



3s



5s



10s



15s



20s

## 4.6 Time Interval For The Same Code Read

It means, after reading a barcode, refuse to read the same code for a set period of time. Only after a set period of time, it can be able to read and output. Default: 500ms, Unit:100ms, Range:0-9900ms.

Mainly for continuous mode and automatic induction mode.

Example: Set 0.5s, first scan the bar code below. Then scan the “0” and “5” bar code in the Digital Setting Code (Appendix 1).



Time Interval For The Same Code Read

### 4.6.1 Same Code Quickly Set Up



No delay



Delay 1s



Delay 3s



Delay 5s



Delay 7s



Infinite delay

## 5 Lighting and Collimate

### 5.1 Lighting

Head lamp is used to additional lighting when read.



\*The light turn on only when read  
(Default)



Always on



Always off

### 5.2 Collimation

There will be a pointing light beam which can help user to find best distance.

Note: Flashing and non-flashing functions only work if the collimation LED is set to be **Always on** or **on when read**. After the LED is set to be off, if you want to set the LED flashing function, please first set the collimation LED to be **Always on** or **on when reading**.



\*The light turn on only when read  
(Default)



Always on



Always off



Flashing



Non-Flashing

## 6 Prompts

### 6.1 Keyboard

#### 6.1.1 Keyboard Settlement

Scan following code to change keyboard.



\*American English(Default)



Belgium



Finland



Austria,Germany



France



Italy



Sweden



UK



Denmark



Spain



Norway



Portugal



Turkey F



Turkey Q



Japan



Russia



**Czech**



**Thailand**



**Ukraine**



**Brazil(ABNT2)**



**Greek**



**Hungary**



**Netherlands**



**Poland(214)**



**Romania (standard)**



**Slovakia**



**Multi-country General**

### 6.1.2 Keyboard Type

After enabling the virtual keyboard, you can output the correct data in any keyboard language mode.

When using virtual keyboard, you must make sure the keypad number keys are valid.



**\*Standard Keyboard**



**Virtual Keyboard**



### 6.1.3 Keyboard Output Character Time Interval

Time from 0ms to 1000ms Unit: 5ms Default: 5ms



0ms



10ms

### 6.1.4 ASCII Control Character Output Mode Selection

Control character (0x00-0x20) output mode selection in ASCII code

Output function keys: control characters are used as custom function keys. See appendix 4 for specific functions

Output Ctrl combination key (this function is used with prefix and suffix) : Ctrl combination key output control characters, specific functions are shown in appendix 4

ALT output control characters: full control character output is supported in Chinese environment, refer to standard ASCII table for details

Output Enter and DownArrow: mask other control characters, output only: 0x07 output Enter, 0x0A output DownArrow, 0x0D output Enter.



Output function keys(0x00)



Output Ctrl combination key(0x01)



ALT output control characters(0x02)



Output Enter and DownArrow(0x03)

## 6.2 Prompts Tone

### 6.2.1 Buzzer Type



\*Passive Buzzer



Active Buzzer

### 6.2.2 Silent Mode



Close All Prompts



\*Forbid to Close All Prompts

### 6.2.3 Volume Level

Default: high pitch



\*High Pitch



Middle



Low

### 6.2.4 Decoding Successful Prompt Tone



\*Decoding Successful Prompt Tone ON



Decoding Successful Prompt Tone OFF

### 6.2.5 Starting Up Prompt



**\*Starting Up Prompt ON**



**Starting Up Prompt OFF**

### 6.2.6 Setup Code Prompt



**\*Setup Code Prompt ON**



**Setup Code Prompt OFF**

## 6.3 Decoding Successful Prompt Light

Decoding success prompt light on a certain time, the premise is that the prompt light is used as a decoding prompt.



**Forbid**



**\*Allow**

## 6.4 Decoding Prompt Working Mode



**\*Power on Always off**



**Power on Always on**

## 6.5 Decoding Prompt

If the barcode cannot be decoded within the timeout period before releasing the trigger button, it is allowed to send "unread" messages. Any possible prefix or suffix can be attached to this message.

When this function is disabled, no message can be sent to the host even if the barcode cannot be decoded.



**\*Forbid sending NR**



**Allow sending NR**

## 6.6 Keyboard Output Force Letter Case Conversion

Example: If the barcode is ab123dE, if scan the "convert to uppercase" bar code, the output is AB123DE; if scan the "convert to lowercase" bar code, the output is abc123de.

**Default: Keyboard case is not converted.**



**\*Keyboard case is not converted**



**All uppercase**



**All lowercase**



**Case reversal**

## 6.7 Output Data Code Format

Read following to print Chinese data according to specified code format

0: Original type                      1:GBK format: notepad, EXCEL

2: UNICODE format: WORD and input box for chat tools



**Original Type**



**\*GBK**



**Unicode**

## 6.8 Input Data Code Format



**\*AUTO**  
**(0x00)**



**GBK(GB2312)**  
**(0x01)**



**UTF8**  
**(0x02)**



**ASCII**  
**(0x03)**



**Japanese**



**DEC Multinational Character Set(MCS)**



**Japanese single byte**

## 7 Data Edition

### 7.1 CODE ID

Users can identify different types of bar code by CODE ID.

CODE ID use one character to identify and can be self- defined. Pls see the Appendix 3.



**\*Not allowed to send ID**



**Allowed to send ID**

### 7.2 Terminator Character

Terminator character is add character format after decoding data: decoded data + terminator character.



**\*No Terminator**



**#&CR LF**



**%CR**



**TAB**



**CRCR**



**CR LF CR LF**

## 7.3 Add Prefix and Suffix

### 7.3.1 Prefix

- 1) Scan "Set Multiple Prefixes" setting code



Set Multiple Prefixes in succession

- 2) Scan the digital setting code in turn, and there will be a successful tone for every four
- 3) Scan "Finish Setting Multiple Prefixes Suffixes" setting code and finish setting



Finish Setting Multiple Prefixes Suffixes

### 7.3.2 Suffix(Similar to a prefix, you can add a newline to suffix if you need a newline)

- 1) Scan "Set Multiple Suffixes" setting code



Set Multiple Suffixes in succession

- 2) Set Suffixes
- 3) Scan "Finish Setting Multiple Prefixes Suffixes" setting code and finish setting



Finish Setting Multiple Prefixes Suffixes

### 7.3.3 Prefix Suffix Take Effect



\*Only output the decoded data



Output multiple Suffixes



Output multiple Prefixes



Output multiple Prefixes and Suffixes

## 7.4 Hide Header, Middle and Tail Characters

### 7.4.1 Hide Header Characters

Decoding data for header data hiding, it can be configured to hide any length.

If the configured length exceeds the barcode data length, all contents of the current barcode are hidden



\*Forbid



Allow

#### Set the number of Hide Header Characters

Set the number of Hide Header Characters, ranging from 1 to 255.

Scan the follow barcode and then scan the digital setting code. For example, if 16 characters need to be hidden, then scan the digital setting code sequentially: 0, 1 and 6.



The number of Hide Header Characters



## 7.4.2 Hide Middle Characters

Decoding data for middle data hiding, and any starting position and length can be configured.

If the starting position of the configuration exceeds the barcode data length, the current barcode is not hidden.

If the configured length exceeds the remaining barcode data length, all barcode data after the start location is hidden.



**\*Forbid**



**Follow**

### Sets the Start Location of Hide Middle Characters

Sets the start location of hide middle characters, ranging from 1 to 255.

Scan the follow barcode and then scan the digital setting code. For example, if you need to hide data after the third character (starting with the fourth character), scan the digital setting code successively: 0 0 3.



**The start bit of Hide Middle Characters**

### Sets the Length of Hide Middle Characters

Sets the length of hide middle characters, ranging from 1 to 255.

Scan the follow barcode and then scan the digital setting code. For example, if 16 characters need to be hidden, then scan the digital setting code sequentially: 0, 1 and 6.



**The Length of Hide Middle Characters**

### 7.4.3 Hide Tail Characters

Decoding data for tail data hiding, it can be configured to hide any length.

If the configured length exceeds the barcode data length, all contents of the current barcode are hidden.



**\*Forbid**



**Follow**

#### Set the number of Tail Header Characters

Set the number of Tail Header Characters, ranging from 1 to 255.

Scan the follow barcode and then scan the digital setting code. For example, if 16 characters need to be hidden, then scan the digital setting code sequentially: 0, 1 and 6.



**The number of Tail Header Characters**

### 7.5 Set STX and ETX



**Forbid**



**STX Prefix**



**ETX Suffix 1**



**STX(Prefix)+ETX(Suffix 1)**

## 7.6 Any Character Replacement Function

This function can replace any character in barcode data with another character, supporting data number 1:1 or 1:n replacement, such as the replacement of A--B, A--BC, A--BCD...

Operation brief Description:

### 7.6.1 First scan "Set the Replaced Object"



**Set the Replaced Object**

For example: Separator GS, corresponding digital setting code is 1029, respectively scan 1,0,2,9

### 7.6.2 Scan "Set Replacement Data"



**Set Replacement Data**

For example: Symbol }, corresponding digital setting code is 1125, respectively scan 1,1,2,5

### 7.6.3 Complete Setting



**Complete Setting**

### 7.6.4 Scan "Allow Data Replacement" to Enable the Replacement Function



**Allow Replacement**



**Forbid Replacement**

## 8 All Types of Bar Code Can be Decoded

### 8.1 Global Enable Switch



Allow



Forbid

### 8.2 1D Code Global Enable Switch



Allow



Forbid

### 8.3 2D Code Global Enable Switch



Allow



Forbid

### 8.4 Forward and backward reading



Allow



Forbid

## 8.5 UPC-A

### 8.5.1 UPC-A



**\*Allow**



**Forbid**

### 8.5.2 UPC-A Leading Code



**No Leading Code**



**\*System Characters (Default)**



**System Character & Country Code**

### 8.5.3 UPC-A Check Bit



**UPC-A Check bit is not transmitted**



**\*Transmit UPC-A Check bit**

## 8.6 UPC-A Extra Code

### 8.6.1 UPC-A 2-bit Extra Code



**Allow**



**\*Forbid**

### 8.6.2 UPC-A 5-bit Extra Code



Allow



\*Forbid

### 8.6.3 UPC-A Extra Code Must be Identified



Allow



\*Forbid

## 8.7 UPC-E

### 8.7.1 UPC-E



\*Allow



Forbid

### 8.7.2 UPC-E Leading Code



\*No Leading Code



System Characters (Default)



System Character & Country Code

### 8.7.3 UPC-E Check Bit



UPC-E Check bit is not transmitted



\*Transmit UPC-E Check bit

## 8.8 UPC-E Extra Code

### 8.8.1 UPC-E 2-bit Extra Code



Allow



\*Forbid

### 8.8.2 UPC-E 5-bit Extra Code



Allow



\*Forbid

### 8.8.3 UPC-E Extra Code Must be Identified



Allow



\*Forbid

## 8.9 UPC-E Turn UPC-A



Allow



\*Forbid

## 8.10 UPC-A Turn EAN-13



Allow



\*Forbid

## 8.11 UPC-E1



Allow



Forbid

## 8.12 EAN-8

### 8.12.1 EAN-8



\*Allow



Forbid

### 8.12.2 EAN-8 Check Bit



Forbid



Allow

## 8.13 EAN-8 Extra Code

### 8.13.1 EAN-8 2-bit Extra Code



Allow



\*Forbid



### 8.13.2 EAN-8 5-bit Extra Code



Allow



\*Forbid

### 8.13.3 EAN-8 Extra Code Must be Identified



Allow



\*Forbid

## 8.14 EAN-13

### 8.14.1 EAN-13



\*Allow



Forbid

### 8.14.2 EAN-13 Check Bit



Forbid



\*Allow

## 8.15 Bookland EAN(ISBN)

When ISBN are forbidden, they are treated as EAN13



Allow (0x01)



\*Forbid (0x00)

## 8.16 EAN-13 Extra Code

### 8.16.1 EAN-13 2-bit Extra Code



Allow



\*Forbid

### 8.16.2 EAN-13 5-bit Extra Code



Allow



\*Forbid

### 8.16.3 EAN-13 Extra Code Must be Identified



Allow



\*Forbid

## 8.17 CODE 128



**\*Allow**



**Forbid**

## 8.18 GS1-128(UCC/EAN-128)



**\*Allow**



**Forbid**

## 8.19 Interleaved 2 of 5

### 8.19.1 1 2 of 5



**\*Allow**



**Forbid**

### 8.19.2 Interleaved 2 of 5 Identify Length

Users can set to decode Interleaved 2 of 5 within a certain length range.

Example:Set to decode only Interleaved 2 of 5 within 4-20 bit length range.

First scan the bar code below, and then scan 0,4,2,0 bar code in Appendix 1 in sequence. Change the selection or cancel an incorrect input setting, scan the bar code in Appendix 2.



Industrial 2 of 5 within a certain length range



Industrial 2 of 5 in any length range

### 8.19.3 Interleaved 2 of 5 Check Bit Verification



Allow



\*Forbid

### 8.19.4 Interleaved 2 of 5 Check Bit Transmission



Allow



\*Forbid

## 8.20 Matrix 2 of 5

### 8.20.1 Matrix 2 of 5



Allow



\*Forbid

### 8.20.2 Matrix 2 of 5 Identify Length

Users can set to decode Matrix 2 of 5 within a certain length range.

Example: Set to decode only Matrix 2 of 5 within 4-20 bit length range.

First scan the bar code below, and then scan 0,4,2,0 bar code in Appendix 1 in sequence. Change the selection or cancel an incorrect input setting, scan the bar code in Appendix 2.



**Matrix 2 of 5 within a certain length range**



**Matrix 2 of 5 in any length range**

### 8.20.3 Matrix 2 of 5 Check Bit Verification



**Allow**



**\*Forbid**

### 8.20.4 Matrix 2 of 5 Check Bit Transmission



**Allow**



**\*Forbid**

## 8.21 Industrial 2 of 5

### 8.21.1 Industrial 2 of 5



**Allow**



**\*Forbid**

### 8.21.2 Industrial 2 of 5 Identify Length

Users can set to decode Industrial 2 of 5 within a certain length range.

Example: Set to decode only Industrial 2 of 5 within 4-20 bit length range.

First scan the bar code below, and then scan 0,4,2,0 bar code in Appendix 1 in sequence. Change

the selection or cancel an incorrect input setting, scan the bar code in Appendix 2.



**Industrial 2 of 5 within a certain length range**



**Industrial 2 of 5 in any length range**

## 8.22 Standard 2 of 5

### 8.22.1 Standard 2 of 5



**Allow**



**\*Forbid**

### 8.22.2 Standard 2 of 5 Identify Length

Users can set to decode Standard 2 of 5 within a certain length range.

Example: Set to decode only Standard 2 of 5 within 4-20 bit length range.

First scan the bar code below, and then scan 0,4,2,0 bar code in Appendix 1 in sequence. Change the selection or cancel an incorrect input setting, scan the bar code in Appendix 2.



**Standard 2 of 5 within a certain length range**



**Standard 2 of 5 in any length range**

## 8.23 Code 39

### 8.23.1 Code 39



\*Allow



Forbid

### 8.23.2 Code 39 Length



Can solve for any length of code39

### 8.23.3 Code 39 Check Bit Verification



Verification check bit



\*Check bits are not validated

### 8.23.4 Code 39 Check Bit



Transmission Check Bit



\*No check bits are transmitted

### 8.23.5 Code39 Transmit Start Character and Stop Character



Allow



\*Forbid

## 8.24 Code 39 Full ASCII



Allow



\*Forbid

## 8.25 Code 32

### 8.25.1 Code 32



Allow



\*Forbid

### 8.25.2 Code 32 Add the Prefix A



Allow



\*Forbid

## 8.26 Code 93

### 8.26.1 Code93



Allow



\*Forbid



## 8.26.2 Code93 Length



Can read for any length of code93

## 8.27 Code 11

### 8.27.1 Code 11



Allow



\*Forbid

### 8.27.2 Code 11 Length



Can solve for any length of code11

### 8.27.3 Code 11 Check Bit Verification



Allow



One check bit



Two check bit

### 8.27.4 Code 11 Check Bit Transmission



Allow



\*Forbid

## 8.28 Codabar

### 8.28.1 Codabar



Allow



\*Forbid

### 8.28.2 Codabar Length



Can solve for any length of Codabar

### 8.28.3 Start and End Character Formats

T initiators and terminators are allowed to be one of the four characters: "A", "B", "C", "D";The terminator is also allowed to be one of the four characters "T", "N", "\*", "E".



\*ABCD/ABCD



ABCD/TN\*E

### 8.28.4 Start and End Character Send



Remove the start and stop characters



\*Allow start and stop characters

## 8.29 MSI

### 8.29.1 MSI



Allow



\*Forbid

### 8.29.2 MSI Length



Can read for any length of MSI

## 8.30 GS1-Databar



Allow



\*Forbid

## 8.31 GS1 Composite Code



Allow



\*Forbid

## 8.32 QR Code

### 8.32.1 QR Code



**\*Allow**



**Forbid**

### 8.32.2 Forward and Backward Reading



**\*Only read Forward**



**Forward and Backward both can read**

## 8.33 Data Matrix

### 8.33.1 Data Matrix



**\*Allow**



**Forbid**

### 8.33.2 Forward and Backward Reading



**Only read Forward**



**Only read Backward**



**Forward and Backward both can read**

## 8.34 PDF 417

### 8.34.1 PDF 417



\*Allow



Forbid

## 8.35 Aztec Code



Allow



\*Forbid

## 8.36 Maxi Code



Allow



\*Forbid

## 8.37 Han Xin Codes



Allow



\*Forbid

## 8.38 Mirror

### 8.38.1 QR Mirror



\*Forbid



Allow

### 8.38.2 DM Mirror



\*Forbid



Allow

## Appendix 1: Digital Setting Code



0



1



2



3



4



5



6



7



8



9

## Appendix 2: Cancel Barcode

Change the selection or cancel an incorrect input, scan the bar code below.



**Cancel**



## Appendix 3: Code ID

| Code Characters | Bar code Type                                                  |
|-----------------|----------------------------------------------------------------|
| A               | UPC-A, UPC-E, EAN-8, EAN-13                                    |
| B               | Code 39, Code 32                                               |
| C               | Codabar                                                        |
| D               | Code 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                                               |
| K               | UCC/EAN-128/GS1-128                                            |
| L               | Bookland EAN/ISBN, ISSN                                        |
| 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 Comparison Table

| Scan Value | Hexadecimal value | Keyboard Operation | Keyboard+Ctrl Operation |
|------------|-------------------|--------------------|-------------------------|
| 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 | Space  |
| 1033 | 21h | /A    | !      |
| 1034 | 22h | /B    | '      |
| 1035 | 23h | /C    | #      |
| 1036 | 24h | /D    | \$     |
| 1037 | 25h | /E    | %      |
| 1038 | 26h | /F    | &      |
| 1039 | 27h | /G    | '      |
| 1040 | 28h | /H    | (      |
| 1041 | 29h | /I    | )      |
| 1042 | 2Ah | /J    | *      |
| 1043 | 2Bh | /K    | +      |
| 1044 | 2Ch | /L    | ,      |
| 1045 | 2Dh | -     | -      |
| 1046 | 2Eh | .     | .      |
| 1047 | 2Fh | /     | /      |
| 1048 | 30h | 0     | 0      |
| 1049 | 31h | 1     | 1      |
| 1050 | 32h | 2     | 2      |
| 1051 | 33h | 3     | 3      |
| 1052 | 34h | 4     | 4      |
| 1053 | 35h | 5     | 5      |
| 1054 | 36h | 6     | 6      |
| 1055 | 37h | 7     | 7      |
| 1056 | 38h | 8     | 8      |
| 1057 | 39h | 9     | 9      |
| 1058 | 3Ah | /Z    | :      |
| 1059 | 3Bh | %F    | ;      |

|      |     |    |   |
|------|-----|----|---|
| 1060 | 3Ch | %G | < |
| 1061 | 3Dh | %H | = |
| 1062 | 3Eh | %I | > |
| 1063 | 3Fh | %J | ? |
| 1064 | 40h | %V | @ |
| 1065 | 41h | A  | A |
| 1066 | 42h | B  | B |
| 1067 | 43h | C  | C |
| 1068 | 44h | D  | D |
| 1069 | 45h | E  | E |
| 1070 | 46h | F  | F |
| 1071 | 47h | G  | G |
| 1072 | 48h | H  | H |
| 1073 | 49h | I  | I |
| 1074 | 4Ah | J  | J |
| 1075 | 4Bh | K  | K |
| 1076 | 4Ch | L  | L |
| 1077 | 4Dh | M  | M |
| 1078 | 4Eh | N  | N |
| 1079 | 4Fh | O  | O |
| 1080 | 50h | P  | P |
| 1081 | 51h | Q  | Q |
| 1082 | 52h | R  | R |
| 1083 | 53h | S  | S |
| 1084 | 54h | T  | T |
| 1085 | 55h | U  | U |
| 1086 | 56h | V  | V |
| 1087 | 57h | W  | W |
| 1088 | 58h | X  | X |
| 1089 | 59h | Y  | Y |
| 1090 | 5Ah | Z  | Z |
| 1091 | 5Bh | %K | [ |

|      |     |    |   |
|------|-----|----|---|
| 1092 | 5Ch | %L | \ |
| 1093 | 5Dh | %M | ] |
| 1094 | 5Eh | %N | ^ |
| 1095 | 5Fh | %O | _ |
| 1096 | 60h | %W | ' |
| 1097 | 61h | +A | a |
| 1098 | 62h | +B | b |
| 1099 | 63h | +C | c |
| 1100 | 64h | +D | d |
| 1101 | 65h | +E | e |
| 1102 | 66h | +F | f |
| 1103 | 67h | +G | g |
| 1104 | 68h | +H | h |
| 1105 | 69h | +I | i |
| 1106 | 6Ah | +J | j |
| 1107 | 6Bh | +K | k |
| 1108 | 6Ch | +L | l |
| 1109 | 6Dh | +M | m |
| 1110 | 6Eh | +N | n |
| 1111 | 6Fh | +O | o |
| 1112 | 70h | +P | p |
| 1113 | 71h | +Q | q |
| 1114 | 72h | +R | r |
| 1115 | 73h | +S | s |
| 1116 | 74h | +T | t |
| 1117 | 75h | +U | u |
| 1118 | 76h | +V | v |
| 1119 | 77h | +W | w |
| 1120 | 78h | +X | x |
| 1121 | 79h | +Y | y |
| 1122 | 7Ah | +Z | z |
| 1123 | 7Bh | %P | { |

|      |     |    |           |
|------|-----|----|-----------|
| 1124 | 7Ch | %Q |           |
| 1125 | 7Dh | %R | }         |
| 1126 | 7Eh | %S | ~         |
| 1127 | 7Fh |    | Undefined |

## Appendix 5: Supported Barcode Type

| Barcode Type         | Hexadecimal Value | Barcode Type         | Hexadecimal Value |
|----------------------|-------------------|----------------------|-------------------|
| 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 Port Instruction

When the scanner is not working, it is in sleep mode. Under the sleep mode, need to wake up first, then send the effective command. (Wake up command: 0x00, 50ms, then send the effective command)

To start decoding and stop decoding the serial port command needs to be valid in host mode. Please switch to the host mode first.

**Table 6-1**

| Name                | Instructions                                                                                      |
|---------------------|---------------------------------------------------------------------------------------------------|
| CMD_ACK             | 04 D0 04 00 FF 28                                                                                 |
| CMD_NAK             | RESEND: 05 D1 04 00 01 FF 25<br>BAD_CONTEXT: 05 D1 04 00 02 FF 24<br>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       | Listed in the table below                                                                         |
| PARAM_SEND          | Listed in the table below                                                                         |
| 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<br>05 E6 04 00 01 FF 10                                                      |



**Table 6-2**

| Parameter Name                                    | Serial Instructions                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Default Configuration                             | Factory Default Configuration:08 C6 04 08 00 F2 FF 00 FD 35                                                                                                                                                                                                                                                     |
| Scanning duration                                 | 4s: 07 C6 04 08 00 88 28 FE 77<br>10s:07 C6 04 08 00 88 64 FE 3B                                                                                                                                                                                                                                                |
| Single Scan Time(Scanning duration)Quickly Set Up | Infinite: 08 C6 04 08 00 F2 FA 00 FD 3A<br>3s: 08 C6 04 08 00 F2 FA 03 FD 37<br>5s: 08 C6 04 08 00 F2 FA 05 FD 35<br>10s: 08 C6 04 08 00 F2 FA 0A FD 30<br>15s: 08 C6 04 08 00 F2 FA 0B FD 2F<br>20s: 08 C6 04 08 00 F2 FA 0C FD 2E<br>30s: 08 C6 04 08 00 F2 FA 0D FD 2D<br>60s: 08 C6 04 08 00 F2 FA 0E FD 2C |
| Trigger Mode                                      | Button Holding: 07 C6 04 08 00 8A 00 FE 9D<br><br>Button Trigger: 07 C6 04 08 00 8A 02 FE 9B<br><br>Continuous scanning: 07 C6 04 08 00 8A 04 FE 99<br><br>Automatic Induction: 07 C6 04 08 00 8A 09 FE 94<br><br>Host: 07 C6 04 08 00 8A 08 FE 95                                                              |
| Break Time Settlement                             | 0s:07 C6 04 08 00 89 00 FE 9E<br>0.5s: 07 C6 04 08 00 89 05 FE 99<br>3s: 07 C6 04 08 00 89 1E FE 80                                                                                                                                                                                                             |
| Buzzer Voice                                      | Low: 07 C6 04 08 00 8C 02 FE 99<br>Middle: 07 C6 04 08 00 8C 01 FE 9A<br>High: 07 C6 04 08 00 8C 00 FE 9B                                                                                                                                                                                                       |
| Buzzer Type                                       | *Passive Buzzer: 08 C6 04 08 00 F2 D8 00 FD 5C<br><br>Active Buzzer: 08 C6 04 08 00 F2 D8 01 FD 5B                                                                                                                                                                                                              |

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| Decoding Successful<br>Prompt Tone                    | On: 07 C6 04 08 00 38 01 FE EE<br>Off: 07 C6 04 08 00 38 00 FE EF                                                                                                                                                                           |
| Terminator Character Setting                          | Forbid:08 C6 04 08 00 F2 05 00 FE 2F<br>CR LF:08 C6 04 08 00 F2 05 01 FE 2E<br>CR:08 C6 04 08 00 F2 05 02 FE 2D<br>TAB: 08 C6 04 08 00 F2 05 03 FE 2C<br>CR CR: 08 C6 04 08 00 F2 05 04 FE 2B<br>CR LF CR LF: 08 C6 04 08 00 F2 05 05 FE 2A |
| Decoding Successful<br>Prompt Light                   | Forbid: 08 C6 04 08 00 F2 0B 00 FE 29<br>Allow: 08 C6 04 08 00 F2 0B 01 FE 28                                                                                                                                                               |
| Decoding Prompt Light<br>Control                      | Power on Always off: 08 C6 04 08 00 F2 CB 00 FD 69<br>Power on Always on: 08 C6 04 08 00 F2 CB 01 FD 68                                                                                                                                     |
| Silent                                                | Forbid: 08 C6 04 08 00 F2 0C 00 FE 28<br>Allow: 08 C6 04 08 00 F2 0C 01 FE 27                                                                                                                                                               |
| Starting Up Prompt                                    | Forbid: 08 C6 04 08 00 F2 0D 00 FE 27<br>Allow: 08 C6 04 08 00 F2 0D 01 FE 26                                                                                                                                                               |
| Setup Code Prompt                                     | Forbid: 08 C6 04 08 00 F2 0E 00 FE 26<br>Allow: 08 C6 04 08 00 F2 0E 01 FE 25                                                                                                                                                               |
| Send "Not read" message                               | On: 07 C6 04 08 00 5E 01 FE C8<br>Off: 07 C6 04 08 00 5E 00 FE C9                                                                                                                                                                           |
| Allows scan configuration<br>bar code                 | On: 07 C6 04 08 00 EC 01 FE 3A<br>Off: 07 C6 04 08 00 EC 00 FE 3B                                                                                                                                                                           |
| Send the Setup Code<br>Information                    | On: 08 C6 04 08 00 F1 71 01 FD C3<br>Off: 08 C6 04 08 00 F1 71 00 FD C4                                                                                                                                                                     |
| Prefix/Suffix Value<br>Prefix<br>Suffix 1<br>Suffix 2 | Prefix string setting 31<br>Suffix string setting 32 33 :<br>0B C6 04 08 00 69 31 68 32 6A 33 FD<br>52<br>Prefix:0x00<br>Suffix 0x0D 0x0A Implement a newline:                                                                              |

|                       |                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | 0B C6 04 08 00 69 00 68 0D 6A 0A FD<br>D1                                                                                                                                                                                                                                                                                                                                                      |
| Scan Data Send Format | Code: 07 C6 04 08 00 EB 00 FE 3C<br>Code+Suffix: 07 C6 04 08 00 EB 01 FE 3B<br>Code+Suffix 2: 07 C6 04 08 00 EB 02 FE 3A<br>Code+Suffix 1+Suffix 2: 07 C6 04 08 00 EB 03 FE 39<br>Prefix+Code: 07 C6 04 08 00 EB 04 FE 38<br>Prefix+Code+Suffix 1: 07 C6 04 08 00 EB 05 FE 37<br>Prefix+Code+Suffix 2: 07 C6 04 08 00 EB 06 FE 36<br>Prefix+Code+Suffix 1+Suffix 2: 07 C6 04 08 00 EB 07 FE 35 |
| Baud rate             | 1200: 07 C6 04 08 00 9C 03 FE 88<br>2400: 07 C6 04 08 00 9C 04 FE 87<br>4800: 07 C6 04 08 00 9C 05 FE 86<br>9600: 07 C6 04 08 00 9C 06 FE 85<br>19200: 07 C6 04 08 00 9C 07 FE 84<br>38400: 07 C6 04 08 00 9C 08 FE 83<br>57600: 07 C6 04 08 00 9C 09 FE 82<br>115200: 07 C6 04 08 00 9C 0A FE 81                                                                                              |
| Parity                | Odd number: 07 C6 04 08 00 9E 00 FE 89<br>Even number: 07 C6 04 08 00 9E 01 FE 88<br>Tag: 07 C6 04 08 00 9E 02 FE 87<br>Black space: 07 C6 04 08 00 9E 03 FE 86<br>None: 07 C6 04 08 00 9E 04 FE 85                                                                                                                                                                                            |
| Software Shake Hand   | Allow: 07 C6 04 08 00 9F 01 FE 87                                                                                                                                                                                                                                                                                                                                                              |

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|                                | Forbid: 07 C6 04 08 00 9F 00 FE 88                                                                                                                                     |
| Decoded packet format          | Send the original decoded data: 07 C6 04 08 00 EE 00 FE 39<br><br>Send the decoded data of data packet: 07 C6 04 08 00 EE 01 FE 38                                     |
| Host serial response times out | 0.1s: 07 C6 04 08 00 9B 01 FE 8B                                                                                                                                       |
| Stop Bit                       | 1 bit stop bit: 07 C6 04 08 00 9D 01 FE 89<br><br>2 bit stop bit: 07 C6 04 08 00 9D 02 FE 88                                                                           |
| Intercharacter Delay           | 1s: 07 C6 04 08 00 6E 01 FE B8                                                                                                                                         |
| Host Character Timeout         | 500ms: 07 C6 04 08 00 EF 32 FE 06<br>200ms: 07 C6 04 08 00 EF 14 FE 24<br>50ms: 07 C6 04 08 00 EF 05 FE 33                                                             |
| Communication Interface        | Serial: 08 C6 04 08 00 F2 01 00 FE 33<br>USB KBW: 08 C6 04 08 00 F2 01 01 FE 32<br>USB Serial: 08 C6 04 08 00 F2 01 02 FE 31<br>HID POS: 08 C6 04 08 00 F2 01 0E FE 25 |
| PS2 Mode                       | AUTO: 08 C6 04 08 00 F2 A6 00 FD 8E<br>Single PS2: 08 C6 04 08 00 F2 A6 01 FD 8D                                                                                       |
| Lighting Control               | The light turn on only when read :08 C6 04 08 00 F2 02 00 FE 32<br><br>Always on :08 C6 04 08 00 F2 02 01 FE 31<br><br>Always off : 08 C6 04 08 00 F2 02 02 FE 30      |
| Collimation Control            | The light turn on only when read :08 C6 04 08 00 F2 03 00 FE 31<br><br>Always on :08 C6 04 08 00 F2 03 01 FE                                                           |

|                              |                                                                                                                                                                                                                         |
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|                              | 30<br>Always off : 08 C6 04 08 00 F2 03 02<br>FE 2F                                                                                                                                                                     |
| Collimation whether flashing | *Flashing: 08 C6 04 08 00 F2 B8 00 FD<br>7C<br>Not Flashing: 08 C6 04 08 00 F2 B8 01<br>FD 7B                                                                                                                           |
| Sensitivity Rating           | Super High Sensitivity:08 C6 04 08 00<br>F2 04 00 FE 30<br>High Sensitivity:08 C6 04 08 00 F2 04<br>01 FE 2F<br>Medium Sensitivity:08 C6 04 08 00 F2<br>04 02 FE 2E<br>Low Sensitivity:08 C6 04 08 00 F2 04<br>03 FE 2D |
| Custom Sensitivity           | 00:08 C6 04 08 00 F3 01 00 FE 32<br>01:08 C6 04 08 00 F3 01 01 FE 31<br>05:08 C6 04 08 00 F3 01 05 FE 2D<br>10:08 C6 04 08 00 F3 01 0A FE 28<br>15:08 C6 04 08 00 F3 01 0F FE 23                                        |
| Stable Induction Time        | 500ms:08 C6 04 08 00 F3 02 05 FE 2C<br>1000ms:08 C6 04 08 00 F3 02 0A FE<br>27<br>300ms: 08 C6 04 08 00 F3 02 03 FE 2E                                                                                                  |
| 1D Backward Barcode Reading  | Forbid: 08 C6 04 08 00 F2 91 00 FD A3<br>Allow: 08 C6 04 08 00 F2 91 01 FD A2                                                                                                                                           |
| Output Character Set Type    | Original: 08 C6 04 08 00 F2 06 00 FE<br>2E<br>GBK:08 C6 04 08 00 F2 06 01 FE 2D<br>UNICODE:08 C6 04 08 00 F2 06 02 FE<br>2C                                                                                             |
| Keyboard Settlement          | America: 08 C6 04 08 00 F6 01 01 FE<br>2E<br>Belgium: 08 C6 04 08 00 F6 01 02 FE                                                                                                                                        |

|  |                                                       |
|--|-------------------------------------------------------|
|  | 2D                                                    |
|  | Brazil (ABNT2) : 08 C6 04 08 00 F6 01<br>03 FE 2C     |
|  | Denmark: 08 C6 04 08 00 F6 01 06 FE<br>29             |
|  | Finland: 08 C6 04 08 00 F6 01 07 FE<br>28             |
|  | France: 08 C6 04 08 00 F6 01 08 FE 27                 |
|  | Austria,Germany: 08 C6 04 08 00 F6 01<br>09 FE 26     |
|  | Greek: 08 C6 04 08 00 F6 01 0A FE 25                  |
|  | Hungary: 08 C6 04 08 00 F6 01 0B FE<br>24             |
|  | Italy: 08 C6 04 08 00 F6 01 0D FE 22                  |
|  | Netherlands: 08 C6 04 08 00 F6 01 0F<br>FE 20         |
|  | Norway: 08 C6 04 08 00 F6 01 10 FE<br>1F              |
|  | Poland: 08 C6 04 08 00 F6 01 11 FE 1E                 |
|  | Portugal : 08 C6 04 08 00 F6 01 12 FE<br>1D           |
|  | Romania (Standard) : 08 C6 04 08 00<br>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<br>1A            |
|  | Spain: 08 C6 04 08 00 F6 01 16 FE 19                  |
|  | Sweden: 08 C6 04 08 00 F6 01 17 FE<br>18              |
|  | Turkey_F: 08 C6 04 08 00 F6 01 19 FE<br>16            |
|  | Turkey_Q: 08 C6 04 08 00 F6 01 1A FE<br>15            |
|  | UK: 08 C6 04 08 00 F6 01 1B FE 14                     |
|  | Japan: 08 C6 04 08 00 F6 01 1C FE 13                  |

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|                                                        | <p>Czech: 08 C6 04 08 00 F6 01 1D FE 12</p> <p>Thailand Keyboard Kedmanee: 08 C6 04 08 00 F6 01 1E FE 11</p> <p>Ukraine: 08 C6 04 08 00 F6 01 1F FE 10</p> <p>Arabic Language_101: 08 C6 04 08 00 F6 01 20 FE 0F</p> <p>Croatia: 08 C6 04 08 00 F6 01 21 FE 0E</p> <p>Korea: 08 C6 04 08 00 F6 01 22 FE 0D</p> <p>Bulgaria: 08 C6 04 08 00 F6 01 23 FE 0C</p> |
| Keyboard Output Character Time Interval                | <p>0ms: 08 C6 04 08 00 F3 04 00 FE 2F</p> <p>5ms: 08 C6 04 08 00 F3 04 01 FE 2E</p> <p>10ms: 08 C6 04 08 00 F3 04 02 FE 2D</p>                                                                                                                                                                                                                                |
| Keyboard Output Character Time Interval Quickly Set Up | <p>0ms: 08 C6 04 08 00 F2 B2 00 FD 82</p> <p>10ms: 08 C6 04 08 00 F2 B2 01 FD 81</p> <p>50ms: 08 C6 04 08 00 F2 B2 02 FD 80</p>                                                                                                                                                                                                                               |
| Keyboard Output Force Letter Case Conversion           | <p>Keyboard case is not converted: 08 C6 04 08 00 F2 A1 00 FD 93</p> <p>All uppercase: 08 C6 04 08 00 F2 A1 01 FD 92</p> <p>All lowercase: 08 C6 04 08 00 F2 A1 02 FD 91</p> <p>Case reversal: 08 C6 04 08 00 F2 A1 03 FD 90</p>                                                                                                                              |
| Keyboard Type                                          | <p>Standard Keyboard: 08 C6 04 08 00 F2 B4 00 FD 80</p> <p>Virtual Keyboard: 08 C6 04 08 00 F2 B4 01 FD 7F</p>                                                                                                                                                                                                                                                |
| STX and ETX Setting                                    | <p>Forbid: 08 C6 04 08 00 F2 B7 00 FD 7D</p> <p>STX(Prefix): 08 C6 04 08 00 F2 B7 01 FD 7C</p> <p>ETX(Suffix 1): 08 C6 04 08 00 F2 B7 02</p>                                                                                                                                                                                                                  |

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|                                               | FD 7B<br>STX(Prefix)+ETX(Suffix 1): 08 C6 04 08 00 F2 B7 03 FD 7A                                                                                                                                                                          |
| ASCII Control Character Output Mode Selection | Output function keys: 08 C6 04 08 00 F2 AD 00 FD 87<br>Output Ctrl combination key: 08 C6 04 08 00 F2 AD 01 FD 86<br>ALT output control characters: 08 C6 04 08 00 F2 AD 02 FD 85<br>Output Enter、DownArrow: 08 C6 04 08 00 F2 AD 03 FD 84 |
| 1D Code Global Enable Switch                  | Forbid: 08 C6 04 08 00 F2 11 00 FE 23<br>Allow: 08 C6 04 08 00 F2 11 01 FE 22                                                                                                                                                              |
| 2D Code Global Enable Switch                  | Forbid: 08 C6 04 08 00 F2 50 00 FD E4<br>Allow: 08 C6 04 08 00 F2 50 01 FD E3                                                                                                                                                              |
| All Code Global Enable Switch                 | Forbid: 08 C6 04 08 00 F2 90 00 FD A4<br>Allow: 08 C6 04 08 00 F2 90 01 FD A3                                                                                                                                                              |
| Hide Header Characters                        | Forbid: 08 C6 04 08 00 F2 C6 00 FD 6E<br>Allow: 08 C6 04 08 00 F2 C6 01 FD 6D                                                                                                                                                              |
| Hide Middle Characters                        | Forbid: 08 C6 04 08 00 F2 C7 00 FD 6D<br>Allow: 08 C6 04 08 00 F2 C7 01 FD 6C                                                                                                                                                              |
| Hide Tail Characters                          | Forbid: 08 C6 04 08 00 F2 C8 00 FD 6C<br>Allow: 08 C6 04 08 00 F2 C8 01 FD 6B                                                                                                                                                              |
| Same Code Delay                               | 1500ms: 08 C6 04 08 00 F3 03 0F FE 21<br>500ms: 08 C6 04 08 00 F3 03 05 FE 2B<br>300ms: 08 C6 04 08 00 F3 03 03 FE 2D                                                                                                                      |
| Same Code Delay Quickly Set Up                | No delay: 08 C6 04 08 00 F2 C9 00 FD 6B<br>Delay 1s: 08 C6 04 08 00 F2 C9 01 FD 6A<br>Delay 3s: 08 C6 04 08 00 F2 C9 03 FD 68<br>Delay 5s: 08 C6 04 08 00 F2 C9 05 FD                                                                      |



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|                                                         | 66<br>Delay 7s: 08 C6 04 08 00 F2 C9 07 FD<br>64<br>Infinite delay ( Forbid Same Code Read ): 08 C6 04 08 00 F2 C9 09 FD 62                                                      |
| Set Multiple Prefixes in succession                     | SetMultiple Prefixes in succession: 08 C6 04 08 00 F3 10 00 FE 23                                                                                                                |
| Set Multiple Suffixes in succession                     | Set Multiple Suffixes in succession: 08 C6 04 08 00 F3 11 00 FE 22                                                                                                               |
| Finish Setting Multiple Prefixes Suffixes in succession | Finish Setting Multiple Prefixes Suffixes in succession: 08 C6 04 08 00 FF F6 00 FD 31                                                                                           |
| Setting Multiple Prefixes Suffixes Data Transfer Format | Data+Multiple Suffixes: 07 C6 04 08 00 EB 08 FE 34<br>Multiple Prefixes+Data: 07 C6 04 08 00 EB 09 FE 33<br>Multiple Prefixes+Data+Multiple Suffixes: 07 C6 04 08 00 EB 0A FE 32 |
| Heartbeat Control                                       | Forbid: 08 C6 04 08 00 F2 CD 00 FD 67<br>Heartbeat don't need ACK: 08 C6 04 08 00 F2 CD 01 FD 66<br>Heartbeat need ACK: 08 C6 04 08 00 F2 CD 02 FD 65                            |
| UPC-A                                                   |                                                                                                                                                                                  |
| Read                                                    | Forbid: 07 C6 04 08 00 01 00 FF 26<br>Allow: 07 C6 04 08 00 01 01 FF 25                                                                                                          |
| Transmit UPC-A Check Character                          | Forbid: 07 C6 04 08 00 28 00 FE FF<br>Allow: 07 C6 04 08 00 28 01 FE FE                                                                                                          |
| Extra Code                                              | None(00): 07 C6 04 08 00 10 00 FF 17<br>Allow (01) : 07 C6 04 08 00 10 01 FF 16<br>Automatic differentiation(02): 07 C6 04 08 00 10 02 FF 15                                     |
| Leading Code                                            | None(00): 07 C6 04 08 00 22 00 FF 05                                                                                                                                             |

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|                                     | System identification (01) : 07 C6 04 08 00 22 01 FF 04<br>Country\System identification(02) : 07 C6 04 08 00 22 02 FF 03                                         |
| UPC-A 2 Bit Extra Code              | Allow: 08 C6 04 08 00 F2 40 01 FD F3<br>Forbid: 08 C6 04 08 00 F2 40 00 FD F4                                                                                     |
| UPC-A 5 Bit Extra Code              | Allow: 08 C6 04 08 00 F2 41 01 FD F2<br>Forbid: 08 C6 04 08 00 F2 41 00 FD F3                                                                                     |
| UPC-A Extra Code Must be Identified | Allow: 08 C6 04 08 00 F2 42 01 FD F1<br>Forbid: 08 C6 04 08 00 F2 42 00 FD F2                                                                                     |
| <b>UPC-E</b>                        |                                                                                                                                                                   |
| Read                                | Forbid: 07 C6 04 08 00 02 00 FF 25<br>Allow: 07 C6 04 08 00 02 01 FF 24                                                                                           |
| Transmit UPC-E Check bit            | Forbid: 07 C6 04 08 00 29 00 FE FE<br>Allow: 07 C6 04 08 00 29 01 FE FD                                                                                           |
| Extra Code                          | None(00): 07 C6 04 08 00 10 00 FF 17<br>Allow (01) : 07 C6 04 08 00 10 01 FF 16<br>Automatic differentiation(02): 07 C6 04 08 00 10 02 FF 15                      |
| Leading Code                        | None(00): 07 C6 04 08 00 23 00 FF 04<br>System identification (01) : 07 C6 04 08 00 23 01 FF 03<br>Country\System identification(02) : 07 C6 04 08 00 23 02 FF 02 |
| UPC-E Turn UPC-A                    | Forbid: 07 C6 04 08 00 25 00 FF 02<br>Allow: 07 C6 04 08 00 25 01 FF 01                                                                                           |
| UPC-E 2 Bit Extra Code              | Allow: 08 C6 04 08 00 F2 3D 01 FD F6<br>Forbid: 08 C6 04 08 00 F2 3D 00 FD F7                                                                                     |
| UPC-E 5 Bit Extra Code              | Allow: 08 C6 04 08 00 F2 3E 01 FD F5<br>Forbid: 08 C6 04 08 00 F2 3E 00 FD F6                                                                                     |
| UPC-E Extra Code Must be Identified | Allow: 08 C6 04 08 00 F2 3F 01 FD F4                                                                                                                              |

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|                                      | Forbid: 08 C6 04 08 00 F2 3F 00 FD F5                                           |
| UPC-E1                               | Forbid: 08 C6 04 08 00 F2 15 00 FE 1F<br>Allow: 08 C6 04 08 00 F2 15 01 FE 1E   |
| <b>EAN-8</b>                         |                                                                                 |
| Read                                 | Forbid: 07 C6 04 08 00 04 00 FF 23<br>Allow: 07 C6 04 08 00 04 01 FF 22         |
| Extra Code                           | None(00): 07 C6 04 08 00 10 00 FF 17<br>Allow (01) : 07 C6 04 08 00 10 01 FF 16 |
| EAN-8 2 Bit Extra Code               | Allow: 08 C6 04 08 00 F2 37 01 FD FC<br>Forbid: 08 C6 04 08 00 F2 37 00 FD FD   |
| EAN-8 5 Bit Extra Code               | Allow: 08 C6 04 08 00 F2 38 01 FD FB<br>Forbid: 08 C6 04 08 00 F2 38 00 FD FC   |
| EAN-8 Extra Code Must be Identified  | Allow: 08 C6 04 08 00 F2 39 01 FD FA<br>Forbid: 08 C6 04 08 00 F2 39 00 FD FB   |
| EAN-8 Send Check Bit                 | Forbid: 08 C6 04 08 00 F2 80 00 FD B4<br>Allow: 08 C6 04 08 00 F2 80 01 FD B3   |
| <b>EAN-13</b>                        |                                                                                 |
| Read                                 | Forbid: 07 C6 04 08 00 03 00 FF 24<br>Allow: 07 C6 04 08 00 03 01 FF 23         |
| EAN-13 2 Bit Extra Code              | Allow: 08 C6 04 08 00 F2 3A 01 FD F9<br>Forbid: 08 C6 04 08 00 F2 3A 00 FD FA   |
| EAN-13 5 Bit Extra Code              | Allow: 08 C6 04 08 00 F2 3B 01 FD F8<br>Forbid: 08 C6 04 08 00 F2 3B 00 FD F9   |
| EAN-13 Extra Code Must be Identified | Allow: 08 C6 04 08 00 F2 3C 01 FD F7<br>Forbid: 08 C6 04 08 00 F2 3C 00 FD F8   |
| EAN-13 Send Check Character          | Forbid: 08 C6 04 08 00 F2 16 00 FE 1E<br>Allow: 08 C6 04 08 00 F2 16 01 FE 1D   |
| Extra Code                           | None(00): 07 C6 04 08 00 10 00 FF 17                                            |

|                                  |                                                                                                                                                                                                                                                                                                  |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                  | Allow (01) : 07 C6 04 08 00 10 01 FF 16                                                                                                                                                                                                                                                          |
| Bookland EAN(ISBN)               |                                                                                                                                                                                                                                                                                                  |
| Read                             | Forbid: 07 C6 04 08 00 53 00 FE D4<br>Allow: 07 C6 04 08 00 53 01 FE D3                                                                                                                                                                                                                          |
| Format                           | Output 10 Bit:08 C6 04 08 00 F1 40 00 FD F5<br>Output 13 Bit:08 C6 04 08 00 F1 40 01 FD F4                                                                                                                                                                                                       |
| Code 128 Code system switch      | Forbid: 07 C6 04 08 00 08 00 FF 1F<br>Allow: 07 C6 04 08 00 08 01 FF 1E                                                                                                                                                                                                                          |
| Code 128 Length                  | One Single length:<br>06: 0B C6 04 08 00 F5 04 06 F5 05 00 FD 2A<br>Two Single length:<br>04 and 06: 0B C6 04 08 00 F5 04 06 F5 05 04 FD 26<br>Within a certain length range:<br>04 to 09: 0B C6 04 08 00 F5 04 04 F5 05 09 FD 23<br>Any length range:<br>0B C6 04 08 00 F5 04 00 F5 05 00 FD 30 |
| GS1-128 ( UCC/EAN-128)           | Forbid: 07 C6 04 08 00 0E 00 FF 19<br>Allow: 07 C6 04 08 00 0E 01 FF 18                                                                                                                                                                                                                          |
| UCC/EAN-128 Send Check Character | Allow: 08 C6 04 08 00 F2 36 01 FD FD<br>Forbid: 08 C6 04 08 00 F2 36 00 FD FE                                                                                                                                                                                                                    |
| UCC/EAN-128 Length               | One Single length:<br>06: 0B C6 04 08 00 F5 06 06 F5 07 00 FD 26<br>Two Single length:<br>04 and 06: 0B C6 04 08 00 F5 06 06 F5 07 04 FD 22<br>Within a certain length range:                                                                                                                    |

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | <p>04 to 09: 0B C6 04 08 00 F5 06 04<br/>F5 07 09 FD 1F</p> <p>Any length range :</p> <p>0B C6 04 08 00 F5 06 00 F5 07 00<br/>FD 2C</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| ISBT 128       | <p>Forbid: 07 C6 04 08 00 54 00 FE D3</p> <p>Allow: 07 C6 04 08 00 54 01 FE D2</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Code 39        | <p>Forbid: 07 C6 04 08 00 00 00 FF 27</p> <p>Allow: 07 C6 04 08 00 00 01 FF 26</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Code 39 Length | <p>One Single length:</p> <p>Length 06:</p> <p>09 C6 04 08 00 12 06 13 00 FE FA</p> <p>Length 16:</p> <p>09 C6 04 08 00 12 10 13 00 FE F0</p> <p>Length14:</p> <p>09 C6 04 08 00 12 0E 13 00 FE F2</p> <p>Two Single length:</p> <p>02 and 04:</p> <p>09 C6 04 08 00 12 04 13 02 FE FA</p> <p>16 and 14:</p> <p>09 C6 04 08 00 12 10 13 0E FE E2</p> <p>Within a certain length range:</p> <p>02 to 09:</p> <p>09 C-6 04 08 00 12 02 13 09 FE F5</p> <p>0x02 to 0x37(55)Default:</p> <p>09 C6 04 08 00 12 02 13 37 FE C7</p> <p>14 to 15:</p> <p>09 C6 04 08 00 12 0E 13 0F FE E3</p> <p>15 to 16:</p> <p>09 C6 04 08 00 12 0F 13 10 FE E1</p> <p>Any length range: 09 C6 04 08 00 12 00<br/>13 00 FE F0</p> |
| Code 39        | <p>Forbid: 07 C6 04 08 00 30 00 FE F7</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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| Check Bit Verification                              | Allow: 07 C6 04 08 00 30 01 FE F6                                                                                                                                                                                                                                                  |
| Send Code 39 Check Bit                              | Forbid: 07 C6 04 08 00 2B 00 FE FC<br>Allow: 07 C6 04 08 00 2B 01 FE FB                                                                                                                                                                                                            |
| Code 39 Full ASCII                                  | 07 C6 04 08 00 11 01 FF 15                                                                                                                                                                                                                                                         |
| Code 39 Transmit Start Character and Stop Character | Forbid: 08 C6 04 08 00 F2 30 00 FE 04<br>Allow: 08 C6 04 08 00 F2 30 01 FE 03                                                                                                                                                                                                      |
| Convert Code 39 to Code 32 (Italian medical code)   | Forbid: 07 C6 04 08 00 56 00 FE D1<br>Allow: 07 C6 04 08 00 56 01 FE D0                                                                                                                                                                                                            |
| Code 32 Prefixes                                    | Forbid: 07 C6 04 08 00 E7 00 FE 40<br>Allow: 07 C6 04 08 00 E7 01 FE 3F                                                                                                                                                                                                            |
| Code 93                                             | Forbid: 07 C6 04 08 00 09 00 FF 1E<br>Allow: 07 C6 04 08 00 09 01 FF 1D                                                                                                                                                                                                            |
| Code 93 Length                                      | One Single length:<br>04: 09 C6 04 08 00 1A 04 1B 00 FE EC<br><br>Two Single length:<br>04 and 06: 09 C6 04 08 00 1A 06 1B 04 FE E6<br><br>Within a certain length range:<br>04 to 09: 09 C6 04 08 00 1A 04 1B 09 FE E3<br><br>Any length range : 09 C6 04 08 00 1A 00 1B 00 FE F0 |
| Code 11                                             | Forbid: 07 C6 04 08 00 0A 00 FF 1D<br>Allow: 07 C6 04 08 00 0A 01 FF 1C                                                                                                                                                                                                            |
| Set Code 11 Length                                  | One Single length:<br>06: 09 C6 04 08 00 1C 06 1D 00 FE E6<br><br>Two Single length:<br>04 and 06: 09 C6 04 08 00 1C 06 1D 04 FE E2<br><br>Within a certain length range:<br>04 to 09: 09 C6 04 08 00 1C 04 1D                                                                     |

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|                                           | <p>09 FE DF</p> <p>Any length range : 09 C6 04 08 00 1C 00 1D 00 FE EC</p>                                                                                                                                                                                                                           |
| Code 11                                   | None: 07 C6 04 08 00 34 00 FE F3                                                                                                                                                                                                                                                                     |
| Check Bit Verification                    | <p>1 Bit: 07 C6 04 08 00 34 01 FE F2</p> <p>2 Bit: 07 C6 04 08 00 34 02 FE F1</p>                                                                                                                                                                                                                    |
| Send Code 11 Check Bit                    | <p>Forbid: 07 C6 04 08 00 2F 00 FE F8</p> <p>Allow: 07 C6 04 08 00 2F 01 FE F7</p>                                                                                                                                                                                                                   |
| Interleaved 2 of 5/ITF/ Corss 25 Code     | <p>Forbid: 07 C6 04 08 00 06 00 FF 21</p> <p>Allow: 07 C6 04 08 00 06 01 FF 20</p>                                                                                                                                                                                                                   |
| Set Interleaved 2 of 5 Length             | <p>One Single length:</p> <p>06: 09 C6 04 08 00 16 06 17 00 FE F2</p> <p>Two Single length:</p> <p>04 and 06: 09 C6 04 08 00 16 06 17 04 FE EE</p> <p>Within a certain length range:</p> <p>04 to 09: 09 C6 04 08 00 16 04 17 09 FE EB</p> <p>Any length range: 09 C6 04 08 00 16 00 17 00 FE F8</p> |
| Interleaved 2 of 5 Check Bit Verification | <p>Forbid: 07 C6 04 08 00 31 00 FE F6</p> <p>Allow: 07 C6 04 08 00 31 01 FE F5</p>                                                                                                                                                                                                                   |
| Send Interleaved 2 of 5 Check Bit         | <p>Forbid: 07 C6 04 08 00 2C 00 FE FB</p> <p>Allow: 07 C6 04 08 00 2C 01 FE FA</p>                                                                                                                                                                                                                   |
| Industrial 2 of 5                         | <p>Forbid: 07 C6 04 08 00 05 00 FF 22</p> <p>Allow: 07 C6 04 08 00 05 01 FF 21</p>                                                                                                                                                                                                                   |
| Set Industrial 2 of 5 Length              | <p>One Single length:</p> <p>06: 09 C6 04 08 00 14 06 15 00 FE F6</p> <p>Two Single length:</p> <p>04 和 06: 09 C6 04 08 00 14 06 15 04 FE F2</p>                                                                                                                                                     |

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|                                      | <p>Within a certain length range:</p> <p>04 到 09: 09 C6 04 08 00 14 04 15<br/>09 FE EF</p> <p>Any length range: 09 C6 04 08 00 14 00<br/>15 00 FE FC</p>                                                                                                                                                                                             |
| Matrix 25 matrix 25                  | <p>Forbid: 08 C6 04 08 00 F2 20 00 FE 14</p> <p>Allow: 08 C6 04 08 00 F2 20 01 FE 13</p>                                                                                                                                                                                                                                                             |
| Matrix 25 Check Bit Verification     | <p>Forbid: 08 C6 04 08 00 F2 21 00 FE 13</p> <p>Allow: 08 C6 04 08 00 F2 21 01 FE 12</p>                                                                                                                                                                                                                                                             |
| Transfer Matrix 25 Check Character   | <p>Forbid: 08 C6 04 08 00 F2 22 00 FE 12</p> <p>Allow: 08 C6 04 08 00 F2 22 01 FE 11</p>                                                                                                                                                                                                                                                             |
| Matrix 25 Length                     | <p>One Single length:</p> <p>06: 0B C6 04 08 00 F5 00 06 F5 01<br/>00 FD 32</p> <p>Two Single length:</p> <p>04 and 06: 0B C6 04 08 00 F5 00<br/>06 F5 01 04 FD 2E</p> <p>Within a certain length range:</p> <p>04 to 09: 0B C6 04 08 00 F5 00 04<br/>F5 01 09 FD 2B</p> <p>Any length range :</p> <p>0B C6 04 08 00 F5 00 00 F5 01 00<br/>FD 38</p> |
| Standard 25 /<br>IATA 25/Standard 25 | <p>Forbid: 08 C6 04 08 00 F2 23 00 FE 11</p> <p>Allow: 08 C6 04 08 00 F2 23 01 FE 10</p>                                                                                                                                                                                                                                                             |
| Standard 25 Length                   | <p>One Single length:</p> <p>06: 09 C6 04 08 00 F5 02 06 F5 03<br/>00 FD 2E</p> <p>Two Single length:</p> <p>04 and 06: 09 C6 04 08 00 F5 02<br/>06 F5 03 04 FD 2A</p> <p>Within a certain length range:</p> <p>04 to 09: 09 C6 04 08 00 F5 02 04</p>                                                                                                |



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|                                                              | <p>F5 03 09 FD 27</p> <p>Any length range : 09 C6 04 08 00 F5 02 00 F5 03 00 FD 34</p>                                                                                                                                                                                                     |
| Codabar                                                      | <p>Forbid: 07 C6 04 08 00 07 00 FF 20</p> <p>Allow: 07 C6 04 08 00 07 01 FF 1F</p>                                                                                                                                                                                                         |
| Set Codabar Length                                           | <p>One Single length:</p> <p>04: 09 C6 04 08 00 18 04 19 00 FE F0</p> <p>Two Single length:</p> <p>09 C6 04 08 00 18 05 19 04 FE EB</p> <p>Within a certain length range:</p> <p>04 to 09: 09 C6 04 08 00 18 04 19 09 FE E7</p> <p>Any length range : 09 C6 04 08 00 18 00 19 00 FE F4</p> |
| Codabar Check                                                | <p>Allow: 08 C6 04 08 00 F2 4C 01 FD E7</p> <p>Forbid: 08 C6 04 08 00 F2 4C 00 FD E8</p>                                                                                                                                                                                                   |
| Codabar Send Check Character                                 | <p>Allow: 08 C6 04 08 00 F2 4D 01 FD E6</p> <p>Forbid: 08 C6 04 08 00 F2 4D 00 FD E7</p>                                                                                                                                                                                                   |
| NOTIS Transmission Format                                    | <p>Forbid: 07 C6 04 08 00 37 00 FE F0</p> <p>Allow: 07 C6 04 08 00 37 01 FE EF</p>                                                                                                                                                                                                         |
| Start Character and End Character Formats                    | <p>ABCD/ABCD: 08 C6 04 08 00 F2 31 00 FE 03</p> <p>ABCD/TN*E: 08 C6 04 08 00 F2 31 01 FE 02</p>                                                                                                                                                                                            |
| Set the upper and lower case of the start and end characters | <p>Upper Case: 08 C6 04 08 00 F2 32 00 FE 02</p> <p>Lower Case: 08 C6 04 08 00 F2 32 01 FE 01</p>                                                                                                                                                                                          |
| MSI /MSI PLESSEY                                             | <p>Forbid: 07 C6 04 08 00 0B 00 FF 1C</p> <p>Allow: 07 C6 04 08 00 0B 01 FF 1B</p>                                                                                                                                                                                                         |
| Set MSI Length                                               | <p>One Single length:</p> <p>04: 09 C6 04 08 00 1E 04 1F 00 FE E4</p>                                                                                                                                                                                                                      |

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|                                 | <p>Two Single length:</p> <p>04 and 05: 09 C6 04 08 00 1E 05<br/>1F 04 FE DF</p> <p>Within a certain length range:</p> <p>02 to 09: 09 C6 04 08 00 1E 02 1F<br/>09 FE DD</p> <p>Any length range : 09 C6 04 08 00 1E<br/>00 1F 00 FE E8</p> |
| MSI Check Bit                   | <p>1 Bit: 07 C6 04 08 00 32 00 FE F5</p> <p>2 Bit: 07 C6 04 08 00 32 01 FE F4</p>                                                                                                                                                           |
| Send MSI Check Bit              | <p>Forbid: 07 C6 04 08 00 2E 00 FE F9</p> <p>Allow: 07 C6 04 08 00 2E 01 FE F8</p>                                                                                                                                                          |
| GS1 DataBar(RSS) 14             | <p>Forbid: 08 C6 04 08 00 F0 52 00 FD E4</p> <p>Allow: 08 C6 04 08 00 F0 52 01 FD E3</p>                                                                                                                                                    |
| PDF417                          | <p>Allow: 07 C6 04 08 00 0F 01 FF 17</p> <p>Forbid: 07 C6 04 08 00 0F 00 FF 18</p>                                                                                                                                                          |
| QRCode                          | <p>Allow: 08 C6 04 08 00 F0 25 01 FE 10</p> <p>Forbid: 08 C6 04 08 00 F0 25 00 FE 11</p>                                                                                                                                                    |
| QR Forward and Backward Reading | <p>Only read Forward: 08 C6 04 08 00 F2<br/>67 00 FD CD</p> <p>Only read Backward: 08 C6 04 08 00<br/>F2 67 01 FD CC</p> <p>Forward and Backward both can read:<br/>08 C6 04 08 00 F2 67 02 FD CB</p>                                       |
| MicroQRCode                     | <p>Allow: 08 C6 04 08 00 F1 3D 01 FD F7</p> <p>Forbid: 08 C6 04 08 00 F1 3D 00 FD F8</p>                                                                                                                                                    |
| DataMatrix                      | <p>Allow: 08 C6 04 08 00 F0 24 01 FE 11</p> <p>Forbid: 08 C6 04 08 00 F0 24 00 FE 12</p>                                                                                                                                                    |
| Forward and Backward Reading    | <p>Only read Forward: 08 C6 04 08 00 F2<br/>6B 00 FD C9</p> <p>Only read Backward: 08 C6 04 08 00<br/>F2 6B 01 FD C8</p> <p>Forward and Backward both can read:<br/>08 C6 04 08 00 F2 6B 02 FD C7</p>                                       |

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|-------------------|-------------------------------------------------------------------------------|
| MaxiCode          | Forbid: 08 C6 04 08 00 F0 26 00 FE 10<br>Allow: 08 C6 04 08 00 F0 26 01 FE 0F |
| Aztec             | Forbid: 08 C6 04 08 00 F0 28 00 FE 0E<br>Allow: 08 C6 04 08 00 F0 28 01 FE 0D |
| Han Xin Code      | Forbid: 08 C6 04 08 00 F0 2F 00 FE 07<br>Allow: 08 C6 04 08 00 F0 2F 01 FE 06 |
| GS1 COMPOSITE COD | Forbid: 08 C6 04 08 00 F2 17 00 FE 1D<br>Allow: 08 C6 04 08 00 F2 17 01 FE 1C |