

RM1770 Setup Manual

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Chapter 1 Operation Settings

In most cases, the factory default settings of the scanning module can meet the needs of users to put it into use directly. You can also set the parameters through the setting code according to the actual use needs.

1.1 Use setting code

Read the "open setting code" to read the module function configuration (setting code function). After the function is enabled, one or more setting codes can be read to modify the parameters of the reading module. Read.. After the "closing setting code" is selected, the reading module will exit the setting state.



* * Turn on the setting code



Turn off the setting code

Set the code content output enable and disable.



Output setting code content



* * Do not output setting code content

Note: The option marked with (* *) in the setting code indicates the default function or parameter.

1.2 Restore factory default

After reading this setting code, the current parameter setting will be lost and the factory default value will be restored. Refer to Appendix C for factory default parameters and functions.



Restore factory defaults

Note: Use the Restore Factory Defaults feature with caution.

1.3 User Default Settings

In addition to restoring the factory settings, the user can save the common settings as the user default settings. By reading "Save current settings as user default", the current device configuration can be saved as user default information, so that you can make quick settings when needed.

You can restore the default settings saved by the user by reading Restore User Defaults.



Saves the current settings as the user default settings



restores the user default settings

Chapter 2 Communication Interface

The scanning module provides TTL-232 serial communication interface and USB interface (optional function) to communicate with the host. The data can be received and read through the communication interface.

2.1 Communication mode selection

The factory default is to use USB-HID mode for communication. The user can switch between the output modes of the communication port (TTL-232 serial port mode/virtual serial port/USB-HID mode) by setting the scanning code. When users need USB and serial port output at the same time, they can select HID & TTL simultaneous output mode by reading the setting code. When the user switches the communication mode, it is necessary to wait for the completion of device initialization before performing related operations.

Note 1: When the module is set as a USB virtual serial port and communicates with the host through this port, the host needs to install the corresponding driver.

Note 2: USB uses 2 numbers to identify the device and find the correct one. The VID & PID information is shown in the following table:

Interface type	VID (hexadecimal)	PID (hexadecimal)
Virtual serial port	0x152A	0x880F
HID-KBW	0x1FC9	0x5AA7
HID-POS	0x1FCA	0x5AA8

2.1.1 Output mode of communication port

1. Read the following setting code to set the communication output mode.

TTL-232 Serial Mode

* * USB-HID Mode



TTL-232 Mode



USB-HID Virtual Serial Mode

2.2 Serial communication interface

Serial communication interface is a common way to connect the reading module and the host device. When using the serial communication interface, the reading module and the host device must be completely matched in the configuration of communication parameters to ensure smooth communication and correct content.

The serial communication interface provided by the reading module is a TTL level signal. The form of TTL-232 can be connected to most application architectures, but when the form of RS-232 must be used, a conversion circuit needs to be added externally.

The default serial communication parameters of the reading module are shown in the following table. If they are inconsistent with the host equipment, they can be modified by reading the setting code.

TTL-232 default communication parameters:

Parameter	Default
Serial communication type	Standard TTL-232
Baud Rate	9600
Parity (Parity Type)	None
Data Bits	8
Stop Bits	1

2.2.1 Baud rate

The unit of Baud Rate is bits per second (bps), and the following setting codes can be read to select configuration parameters.



1200bps



4800bps



**9600bps



14400bps



19200bps



38400bps



57600bps



115200bps

2.2.2 Verification mode

There are 3 selectable verification methods, as follows:



* * None



Odd Parity



Even Parity

2.3 Configuration related to USB-HID interface

2.3.1 Selection of HID equipment

When the device is an HID class device, it can be 2 different devices. The user can configure it by reading the following setting code.



**HID-KBW



HID-POS

HID-POS Get Scan Data

Data transmission								
	Bit							
Byte	7	6	5	4	3	2	1	0
0	Message ID = 0xfd							
1	Bar code data length							
2	Fixed value 0 xff							
3~62	Fixed value 0 x51							
63	0 x01 (Packets Following)/0 x0 (Packets Not Following)							

Data reception	
	Bit

Byte	7	6	5	4	3	2	1	0
0	Message ID = 0x02							
1	Bar code data length							
2	Fixed value 0 x5d							
3	Fixed value 0 x51							
4	Fixed value 0 x31							
5-60	Bar code data							
61	Fixed value 0 x51							
62	Fixed value 0 x51							
63	0 x01 (Packets Following)/0 x0 (Packets Not Following)							

2.3.2 PC access cycle to HID device

Read the following setting code to modify the access cycle of PC to HID device. The cycle range is 1ms ~ 64ms.



**1ms



3ms



5ms



10ms

2.3.3 Time interval before HID release

Read the following setting codes to modify the time interval before HID release (i.e., the time interval from the effective message to the released message). Interval range: 1ms ~ 63ms



**1ms



2ms



5ms



10ms

2.3.4 Time interval after HID release

Read the following setting codes to modify the time interval after HID release (i.e., the time interval from the release of message to the next valid message). Interval range: 1ms ~ 63ms



**1ms



2ms



5ms



10ms

2.3.5 CapsLock status settings



** CapsLock-Off



CapsLock-On

2.3.6 HID Leading Key Output

Users can read the following setting codes to make HID output a leading message before outputting each section of data, which is convenient for customer software development and positioning. The key value is Ctrl + Shift + R.



* * HID Preamble Prohibit



HID Preamble Allow

Chapter 3 Reading Mode

3.1 Manual mode

Manual mode is the default reading mode. In the manual mode, press the trigger button, and the reading module starts shooting and reading; within the limited time range of "single code reading duration", if the reading is successful, the reading module will output the read content through the communication interface and stop reading. If a new reading needs to be started, the button needs to be triggered again. If the reading exceeds the duration of single code reading, the shooting and reading will be stopped.



* * Manual Mode

3.1.1 Trigger conditions

In manual mode, you can select the trigger condition, which defaults to level triggering, or you can select edge triggering.

Edge trigger means that the level pulse of the trigger signal is detected to start reading, and the reading is ended when the reading is successful or the condition of single code reading duration is reached.

The level trigger condition refers to the level of the trigger signal that needs to be maintained from the start of reading to the end of reading. When the trigger level is canceled, the reading is successful, or the reading exceeds the duration of single code reading, the reading is ended.



Edge trigger



* * Level trigger

3.1.2 Duration of single code reading

The duration of a single reading is the maximum time allowed to hold a reading attempt without a successful reading after the reading is triggered. When this time is exceeded, the read state will be exited. The duration of single code reading ranges from 100ms to 25500ms. Read the following setting codes to set the duration of single code reading.



1000ms



3000ms



**5000ms



10000ms



Infinite length

3.1.3 Deep Sleep

The deep sleep can be set by the following setting code. Deep sleep is enabled, and the module automatically enters deep sleep after being idle for a certain time.



Deep Sleep-On



* * Deep Sleep-Off

Note 1: After entering the deep sleep mode, you can wake up through the key or serial port command to exit the sleep mode.

Note 2: The deep sleep function is only effective in manual mode and TTL-232 serial mode output.

3.2 Command trigger mode

In the command trigger mode, the reading module starts shooting and reading when it receives the trigger signal command sent by the host (that is, write "1" to the bit 0 of the flag bit 0x0002); Within the limited time range of "single code reading duration", if the reading is successful, the reading module will output the reading content through the communication interface and stop reading. If it is necessary to start a new reading, it is necessary to resend the trigger command. If the reading exceeds the duration of single

code reading, the reading will be stopped.



Command trigger mode

Note: In the command trigger mode, the serial port command of the trigger signal is: 7E 00 08 01 00 02 01 AB CD; after the module receives the read command, the serial port returns to the write success command: 02 00 00 01 00 33 31, and the read mode is enabled.

Read the following setting codes to enable and disable the response of the trigger command.



Trigger Command Ack Forbidden



* * Trigger Command Ack Allowed

3.2.1 Duration of single code reading

Please refer to Section 3.1.2 "Setting code of duration of single code reading" for setting of duration of single code reading.

3.3 Continuous mode

The continuous mode is a working mode in which the reading module continuously and circularly shoots, reads and outputs information.

In this mode, the reading interval of 1000ms will be entered by default after successful reading. In continuous mode, continuous reading can be paused or resumed using the trigger level control. In case of continuous reading, it is required to maintain the trigger level for more than 50ms and then cancel, and

the reading will be suspended; in case of suspended reading, it is required to maintain the trigger level for more than 50ms and then cancel, and the reading will be continued.



Continuous mode

3.3.1 Duration of reading interval

It refers to the interval required for the next reading after successful reading. No acquisition reading is performed during this interval. Read the following setting codes to set the reading interval. The setting range is 0ms ~ 25500ms, and the default duration is 1000ms.



No interval



200 ms



500ms



**1000ms



3000ms



5000ms

3.3.2 Code reading delay of the same code

In order to prevent the same bar code from being read continuously for many times in the continuous mode, the reading module can be required to read the same bar code after a set delay time in this mode. The same code reading delay refers to the refusal to read the same barcode within the set duration after reading a barcode. It can be read and output only after the time is exceeded. By default, the same code reading delay is turned off.



Same code reading delay ON



* * Same code reading delay OFF

Read the following setting codes to set the delay time of the same code reading. Setting range: 0ms ~ 12700ms.

Note: The delay duration can be set only after the "same code reading delay" is enabled.



500ms



1000ms



3000ms



5000ms



Infinite delay

3.3.3 Duration of single code reading

Please refer to Section 3.1.2 "Setting code of duration of single code reading" for setting of duration of single code reading.

3.3.4 Continuous Mode Key Pause Switch

When "Continuous mode key pause support" is set, press the key for the first time to pause the continuous mode trigger, and press the key again to enable the continuous mode trigger; when "Continuous mode key pause not supported" is set, the key is invalid for continuous mode.

The continuous mode key pause switch can be set by the user through the following setting codes.



* * Continuous mode key pause is supported



Continuous mode key pause is not supported

3.4 Sensing Mode

The sensing mode refers to a working mode in which the reading module enters the reading mode by sensing the brightness change of the surrounding environment. When the scene changes, the reading module starts to read. After successful reading of output information or timeout of single code reading duration, the reading module can re-enter the monitoring state after a certain time interval (which can be set).If the following conditions do not occur, the reading module will work circularly in the above way: if the bar code is not scanned within the single code reading time, the reading module will automatically suspend the code reading and enter the monitoring state. In the induction reading mode, the reading module can also start to read the code after pressing the trigger key, and continue to monitor the brightness

of the surrounding environment when the code reading is successful and the information is output or the trigger key is released.



Induction mode

3.4.1 Duration of single code reading

Please refer to Section 3.1.2 "Setting code of duration of single code reading" for setting of duration of single code reading.

3.4.2 Reading interval duration

Please refer to Section 3.3.1 Reading Interval Duration Setting Code for setting the reading interval duration.

3.4.3 Code reading delay of the same code

Please refer to 3.3.2 for setting of code reading delay of the same code. The same code reading delay setting code is set.

3.4.4 Sensitivity

Sensitivity refers to the degree of change in the detected scene in the inductive reading mode. When the reading module judges that the degree of scene change meets the requirements, it will switch from the monitoring state to the reading state (normal sensitivity and high sensitivity are preferred).



Low Sensitivity



* * Normal Sensitivity



High sensitivity



ultra-high sensitivity

3.4.5 Image stabilization duration

The image stabilization duration refers to the time that the reading module that detects the scene change needs to wait for the image stabilization before reading the code in the inductive reading mode. The image stabilization duration can be set from 0 to 25500 ms with a step of 100ms. The default stabilization time is 0 ms.



**0ms



100ms



400ms



1000ms



2000ms

Chapter 4 Fill Light and Positioning

4.1 Light filling

A group of LEDs on the reading module is specially equipped for providing auxiliary supplementary light when shooting and reading, irradiating the light beam on the reading target, and improving the reading performance and the adaptability under weak environmental illumination. You can set it according to the actual use conditions:

Fill light-On when taking a picture: The fill light is on when taking a picture and off at other times.

Fill light-normally on: the fill light will continue to emit light after the reading module is powered on.

Fill light-normally off: The fill light does not turn on under any circumstances.



* * Fill light-lights up when taking pictures



Fill light-normally on



Fill light-normally off

4.2 Positioning

The reading module is provided with an auxiliary positioning device which projects an indication line to prompt a user of the center of the scene image shot by the reading module when shooting and reading.

When taking a picture, the positioning light is on: the positioning light is on when taking a picture and off at other times.

The positioning light is always on when taking pictures: the positioning light is always on when

taking pictures and off at other times.

The positioning light is always on: the positioning light is on continuously after the reading module is started.

The positioning light is always off: the positioning light is not on in any case.



* * Locating light-turn on the locating light when taking



pictures-always on when taking pictures



Locating lamp-normally



Locating lamp-normally off

Chapter 5 Prompt Output

5.1 Buzzer master switch

Read the setting code below to turn on/off all beeps.



Mute * * Unmute

5.2 Buzzer setting

5.2.1 Passive buzzer

Read the following setting codes to set the buzzer to be passive and set the driving frequency of the passive buzzer.



* * Passive buzzer



Passive _ LF



* * Passive _ IF



Passive _ HF

5.2.2 Active buzzer

Read the following setting code to set the buzzer as active and set the working level of the active buzzer. Read "high level", the buzzer is set to active low level when idle and active high level when working; read "low level", the buzzer is set to active high level when idle and active low level when working.



Active buzzer



* * High Level



Low Level

5.3 Prompt sound of setting code

Read the setting code below to turn on/off the setting code prompt tone.



*** * Set Tone _ On**



Set Tone _ Off

5.4 Startup prompt tone

When the reading module is powered on and started successfully, it can output or turn off the startup prompt tone according to the setting requirements.



* * Power On Tone Tone-On



Power On Tone Tone-Off

5.5 Reading success prompt LED/prompt tone

After successful reading, the reading module outputs BEEP and DLED prompt signals through the 12pin external interface by default, and prompts through the external passive buzzer and LED. These signals can be turned off according to user requirements.



* * Turn on reading success prompt LED



Turn off reading success prompt LED



* * Turn on the prompt tone of successful reading



Turn off the prompt tone of successful reading

The user can set the BEEP duration of the successfully read tone by reading the following setting code.



30ms



**60ms



90ms



120ms

5.6 Data output coding format

The user can set the output format of the reading module through the following setting codes, so that the host can output Chinese data according to the specified coding format.

Note: GBK format is used for Notepad, and UNICODE format is used for Word and common chat tool input boxes.

Original data output, used for serial port output of encrypted data.



* * Output Data Format-GBK



Output Data Format-UTF8



Output Data Format-Raw Data



Output Data Format-UNICODE

5.7 Keyboard settings for each country

In order to adapt to each country, the device can be set to the "keyboard" corresponding to each country through the following setting code.



* * US Keyboard



Czech Keyboard



French keyboard



German keyboard



Hungarian keyboards



Italian keyboards



Japanese keyboard



Spanish keyboard



Turkish Q Keyboard



Turkish F Keyboard



Mexican Keyboard (Latin)

5.8 Virtual keyboard enabled

In order to adapt to the application environment in more regions, you can read the following setting codes to set the output of the standard/virtual keyboard. But it will lose some output efficiency. Note that when using the virtual keyboard, it is necessary to ensure that the number keys of the keypad on the PC side are enabled.



* * Standard keyboard



Virtual keyboard

1. Virtual keyboard output mode

In order to adapt to different application scenarios, the virtual keyboard has two different output modes for control characters less than 0x20, and the user can switch by scanning the following setting

codes.



Ctrl Mode



Alt Mode



* * Control Character Output Off

2. Control character transmission

ASCII characters between 0x00 and 0x1F can be escaped to become a control function key. When the virtual keyboard is enabled (other HID Keyboards of the module are set to the default value), the input operation of the control function key is as follows: (for the specific correspondence between the ASCII value and the control function key, please refer to the Control Character Correspondence Table)

(1) Virtual keyboard Ctrl mode on

Read the characters with the data of "A < HT > F (HT is an invisible character, not displayed on the terminal software)" (hexadecimal values are 0x41/0x09/0x46 respectively), and the virtual keyboard of the scanning module is operated as follows:

Enter "A" -- press key A;

Enter "Ctrl I" -- Since the data of 0x09 corresponds to the control function key "I", the virtual keyboard will press and hold Ctrl, then press the I key, and finally release the Ctrl key and I key at the same time;

Enter "F" -- Press key F.

Because "Ctrl I" corresponds to the function of converting characters to italic in some word processing software, you may see the normal character "A" and the italic "F" when you complete the above operation.

At present, in the small module of the scanning gun, the virtual keyboard "Ctrl mode" control character output only supports the American keyboard layout.

(2) Alt mode of virtual keyboard

If the virtual keyboard is turned on and set to "Alt mode", the control character operation

corresponding to the output is: ALT + "ASCII code decimal value corresponding to the character". For example, for the "< HT >" character, the virtual keyboard of the scanning module operates as follows:

Enter "Alt 0 9" -- The virtual keyboard will press and hold Alt, then press "0" and "9" on the numeric keypad, and then release Alt.

When the standard keyboard is output, the control character output function is closed, and the ASCII character less than 0x20 will output the corresponding key value function. (For the corresponding function, please refer to the corresponding table of control characters)

Control character correspondence table

ASCII Function	ASCII Value (HEX)	Control character output off	Control Character Output Ctrl Mode	CTRL + X function
NUL	0	Null	Ctrl+@	
SOH	1	KeypadEnter	Ctrl+A	Select all
STX	2	CapsLock	Ctrl+B	Bold
ETX	3	ALT	Ctrl+C	Copy
EOT	4	Null	Ctrl+D	Bookmark
ENQ	5	CTRL	Ctrl+E	Center
ACK	6	Null	Ctrl+F	Find
BEL	7	Enter	Ctrl+G	
BS	8	LeftArrow	Ctrl+H	History
HT	9	Horizontal Tab	Ctrl+I	Italic
LF	0A	DownArrow	Ctrl+J	Justify
VT	0B	Vertical Tab	Ctrl+K	hyperlink
FF	0C	Delete	Ctrl+L	list,left align
CR	0D	Enter	Ctrl+M	
SO	0E	Insert	Ctrl+N	New
SI	0F	Esc	Ctrl+O	Open
DLE	10	F11	Ctrl+P	Print
DC1	11	Home	Ctrl+Q	Quit

DC2	12	PrintScreen	Ctrl+R	
DC3	13	Backspace	Ctrl+S	Save
DC4	14	tab+shift	Ctrl+T	
NAK	15	F12	Ctrl+U	
SYN	16	F1	Ctrl+V	Paste
ETB	17	F2	Ctrl+W	
CAN	18	F3	Ctrl+X	
EM	19	F4	Ctrl+Y	
SUB	1A	F5	Ctrl+Z	
ESC	1B	F6	Ctrl+[	
FS	1C	F7	Ctrl+\	
GS	1D	F8	Ctrl+]	
RS	1E	F9	Ctrl+6	
US	1F	F10	Ctrl+-	

5.9 Output Chinese shielding

After this function is enabled, the reading module will shield the Chinese output. The user can open and close the Chinese output shielding function by reading the following setting codes.



* * Output data does not mask Chinese



Output data masks Chinese

5.10 Analog Keypad

5.10.1 Keypad numeric function output

If this function is not enabled, all outputs will be output according to the corresponding key value of the large keyboard.

After the function is started, only the number "0 ~ 9" in the decoding data obtained by the reading

module is output according to the key value corresponding to the small keyboard, and the rest are output according to the key value corresponding to the large keyboard.

The user can turn on and off the digital output function of the analog keypad by reading the following setting codes.



Keypad Digital Output-On



* * Keypad Digital Output-Off

5.10.2 Keypad Operator Function Output

If this function is not enabled, all outputs will be output according to the corresponding key value of the large keyboard.

After the function is started, only "+" _ "*"/ "in the decoding data obtained by the reading module is output by pressing the key value corresponding to the small keyboard, and the rest are output by pressing the key value corresponding to the large keyboard.

The user can open and close the analog keypad operator output function by reading the following setting codes.



Keypad Operator Output-On



* * Keypad Operator Output-Off

5.11 base64 decoding mode



Base64 Decode On



* * base64 Decode Off

5.12 Image Mirror Mode

When the image has mirror inversion, you can enter the mirror inversion mode by reading the following setting code.



Image Mirror Flip-On



* * Image Mirror Flip-Off

Note: In the mirror inversion mode, only the bar code of mirror inversion can be identified. If you need to identify the normal bar code or set code, please exit the mirror inversion mode first.

5.13 Reverse reading mode

In some special application scenarios, it is necessary to read the special bar code of black and white inversion. The user can enable/disable the reading function of the inverted bar code by reading the following setting code.



* * Invert Disable



Invert Enable

5.14 Invoicing Mode

In order to facilitate the use of this module in the invoicing system, the user can configure the invoicing mode by reading the setting code, and realize the conversion and output of the invoice code format. Billing modes include local billing mode and online billing mode. When the invoicing mode is enabled, the default is the local invoicing mode.

Users can realize the conversion and output of invoice code format by reading the following setting codes.



* * Invoicing mode enabled



Invoicing mode disabled

After the invoice mode is enabled, the invoicing mode can be selected by reading the following setting codes.



* * Local invoicing mode



Online invoicing mode

It should be noted that when the user uses the online invoicing mode, the module must be switched to the HID-POS output mode only and used in conjunction with the Weisheng Micro Invoicing Assistant.

5.15 Read device version information

The user can read the following setting codes to quickly obtain the current device version information and all device version information.



Read device version information



Read all device version information

Example:

（1）. Using the scanner to identify and read the device version information setting code

Output information: HS: V1.00; F:V1.1.71; 2022.06.09

HS: 1.00 means the hardware version is 1.00

F:V1.1.71; 2022.06.09 means that the APP version is 1.1.71 and the APP version date is 2022.06.09.

（2）. Using the scanner to identify and read all information setting codes of the equipment version

HS:V1.00; QR_BOOT:V1.1.8-21.07.29; QR_APP:V1.1.71-22.06.09 ; LIB:V2.2.95

HS:V1.00; The hardware version is 1.00

QR_BOOT:V1.1.8-21.07.29; The BOOT version is 1.1.8, and the BOOT version date is 2021.07.29.

QR_APP:V1.1.71-22.06.09 ; That is, the APP version is 1.1.71 and the APP version date is 2022.06.09.

5.16 Write/Read Device

Users can read and write ID through serial port or virtual serial port.

ID information includes: SN: product serial number

FID: Vendor Information

MID: Product Model

ID up to 64 bytes (plain numbers and uppercase and lowercase letters)

Write ID format:

WriteDeviceID:SN:xxxx; MID:xxxx; FID: xxxx. (Can be changed as required)

The return value of the write ID instruction is the same as that of the write ID instruction

Read ID format:

ReadDeviceID.

Return: SN: xxxx; MID:xxxx; FID:xxxx.

For example, write device ID information for the device: SN: 20200508; MID:WSM1605; FID: WSM

2020., and read the device ID

Write ID:

Serial port sending: Write Device ID: SN: 20200508; MID:WSM1605; FID:WSM2020.

Serial port return: Write Device ID: SN: 20200508; MID:WSM1605; FID:WSM2020.

Read ID:

Serial port sending: Read DeviceID.

Serial port return: SN: 20200508; MID:WSM1605; FID:WSM2020.

Notes: 1. An instruction is followed by a "." As an end indicator.

2. When SN, FID and MID are not written, read the device DeviceID and return "SN: NULL;" MID: NULL; FID: NULL.”。

3. If the write command ID data does not meet the requirements or the command format is wrong, send the write command to return "FALSE" or not return, and the write fails.

The user can also read the DeviceID by reading the following setting code, and the return format is consistent with the reading of the sending instruction.



Read the device ID

5.17 Read Chip SN

The user can quickly obtain the SN information of the current equipment chip by reading the following setting codes.



Read the chip SN number

Chapter 6 Data Editing

In practical applications, in order to facilitate data differentiation and processing, sometimes it is necessary to edit the reading data before output.

Data editing includes:

- Add Prefix
- Add Suffix
- Decoded data Data segment interception
- Output Barcode Code ID
- Output Barcode AIM ID
- Decoding failure characteristic output information (RF information)
- Add Tail

Processed output data format:

【Code ID】【AIM ID】【Prefix】【Data】【Suffix】【Tail】

6.1 Prefix

Prefix a user-defined string that precedes the decoded data. The user can read the following setting codes to add and modify the prefix.



Prefix allowed



* * Prefix not allowed

Read the following setting codes. With the "data code" setting code and the "save" setting code, the user can modify the prefix content.



Modify the prefix

Note: The prefix allows a maximum of 15 characters. For each prefix character, two hexadecimal values are used. Refer to Appendix F for the hexadecimal conversion table of character values.

6.2 Suffix

The suffix is a user-defined string that follows the decoded data. The user can add and modify the suffix by reading the following setting codes.



Suffix allowed



* * Suffix not allowed

Read the following setting codes. With the "data code" setting code and the "save" setting code, the user can modify the suffix content.



Modify the suffix

Note: The suffix allows a maximum of 15 characters and is represented by two hexadecimal values for each suffix character. Refer to Appendix F for the hexadecimal conversion table of character values.

6.3 Code ID

6.3.1 Add Code ID

Code ID uses one character. Users can add Code ID by reading the following setting codes to identify different barcode types.



Allow Code ID to be added



* * Prohibit Code ID from being added

Read the following setting code to restore the default Code ID value of the barcode. Refer to Appendix E for a list of defaults.



Restore Code ID Default

6.3.2 Modifying Code ID

The user can modify the Code ID corresponding to each barcode by reading the following setting codes.



Modify Code ID for EAN13



Modify Code ID for EAN8



Modify Code ID of UPC-A



Modify Code ID of UPC-E0



Modify Code ID of UPC-E1



Modify Code ID of Code 128



Modify Code ID for Code 39



Modify Code ID for Code 93



Modify Codabar's Code ID



Modify Interleaved 2 of 5's Code ID



Modify the Code ID of Industrial 25



Modify the Code ID of Matrix 2 of 5



Modify Code ID for Code11



Modify Code ID for MSI Plessey



Modify the Code ID of RSS-14



Modify the Code ID of Qualified RSS



Modify the Code ID of Extended RSS



Modify the Code ID of QR Code



Modify Code ID for Data Matrix



Modify Code ID for PDF 417



Modify the Code ID of Micro QR



Modify the Code ID of Han Xin Code



Modify the Code ID of Micro PDF 417



Modify the Code ID of Standard 2 of 5



Modify Code ID for Plessey



Modify Code ID for ChinaPost 25



Modify Code ID of Code 16K



Modify CODE ID of Code 49



Modify Code ID for Maxi Code



Modify Code ID for Aztec



Modifying the CODE ID of a GS1 Composite

6.4 AIM ID

6.4.1 Add AIM ID

AIM is the abbreviation of Automatic Identification Manufacturers. AIM ID defines identification codes for various standard bar codes. The specific definitions are in Appendix H. The scanner can add this identification number to the barcode data after decoding, that is, the AIM prefix. Prefix format: "]" + AIM prefix + number,

For example, the AIM ID prefix of Code 128 is "] C0".



Decode Message Adds AIM Prefix Character



* * Decode Message does not add AIM prefix character

6.4.2 Modifying AIM Location

After adding the prefix, Code ID, and AIM ID, you can read the following setting codes to change

their order.



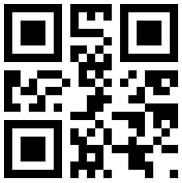
* * CodeID + AIM + Custom



AIM + CodeID + Custom



AIM + Custom + CodeID



CodeID + Custom + AIM



Custom + CodeID + AIM



Custom + AIM + CodeID

6.5 Terminator (Tail)



Close End



* * Add CR End (0 x0D)



Add TAB end (0x09)



Add CRLF end (0 x0D 0 x0A)

6.6 Data section

6.6.1 Date Segment Interception

This feature is used in scenarios where the user needs to output partially decoded information.

The decoding information Data consists of 3 parts:

【Start】【Center】【End】

The user can select some information to be output by reading the following setting codes.



* * Transmit entire Data



Transmit Start segment only



Transmit End Segment Only



Transmit Center Segment Only

6.6.2 Data segment length modification

The user can modify the length of the Start segment and the length of the End segment by reading the following setting codes and combining the "Data Code" and "Save" setting codes. Both the Start and End segments are allowed up to 255 characters, and both are represented by a single hexadecimal character. Refer to Appendix F for the corresponding hexadecimal conversion table of characters.



Modify Start Segment Length



Modify End Segment Length

6.7 RF Information

Read Fail (RF) information refers to the information output when the reading module fails to read, so that the user or the program can adjust or operate accordingly after detecting this information. The user is free to define the RF information.

Read the following setting code to enable/disable RF information transmission.



Allow to send RF information



* * Disable to send RF information

Read the following setting codes, and define and modify the RF information content by combining the "data code" and "save" setting codes. Each RF character is represented by two hexadecimal values, with a maximum of 15 characters allowed. Refer to Appendix F for the hexadecimal conversion table corresponding to characters.



Modify the RF information

Note: When an odd number of hexadecimal values are entered, the last digit fails to be set and only the first few characters are output.

6.8 Output protocol

The user can modify the output format of the decoding result in the virtual serial port/serial port mode by reading the following setting codes.

The format of that decode result with protocol output is: < 03 > < length > < decode data >

Note: The protocol mode must adopt the encoding output format of UTF-8. In other output encoding formats, no matter whether the output with protocol is selected or not, only pure data can be output.



* * Data only output



with protocol output

6.9 GS Character Substitution

GS, as a group separator, was used in the European Food and Drug Administration barcode after the London Olympic Games in 2012. Because GS characters are not visible in many text display tools, some regions need to replace GS with character output that can be displayed. That is, the 0x1D byte in the ASCII code table is replaced with a displayable byte in ASCII.

Currently, the QR decoding module temporarily supports replacing GS with characters in 0x20-0x7E in ASCII.

The replacement method is as follows:

1）Read the "GS character replacement enable" setting code;

2) read that setting code of "GS replace character modification";

3) The characters replaced by GS are represented by two hexadecimal values. Refer to Appendix F for the hexadecimal conversion table corresponding to the characters;

4) Read the "Save" setting code.



GS character substitution enabled



* * GS character substitution disabled

Read the following setting codes. With the "Data Code" setting code and the "Save" setting code, the user can modify the GS replacement character.



GS Substitution Character Modification

6.10 Website code reading

Read the following setting codes to set the permission and prohibition of the address code reading function.



* * Allow reading web address code



Disable reading web address code

Chapter 7 Shortcuts

7.1 Fast POS mode

Characteristics of POS mode:

- Read Mode: Command Trigger Mode
- Communication port: serial port
- Turn off the power-on tone
- Disables the addition of terminators

Users can quickly configure the reading device to work in POS mode by reading the following setting codes.



Fast POS mode

7.2 Serial port & full code open mode

In order to facilitate the customer to quickly configure to the serial port and full-code open mode in the secondary development process, the quick configuration function can be realized by reading the following setting codes.



Serial port & full code open mode

Chapter 8 Code System Settings

8.1 Global Shortcuts

8.1.1 Global operation

The user can read the following setting codes to globally allow/prohibit the reading of all supported code systems and enable the operation of default reading type. Only the setting code is allowed to be read after all types of code systems are prohibited to be read.



Allow to read all types



Disable to read all types



* * Turn on the default reading type

8.1.2 Commodity barcode check bit output enable

Users can read the following setting codes to allow/prohibit the output of commodity barcode check bits (commodity barcodes include: EAN13/EAN8/UPC-A/UPC-E0/UPC-E1).



* * Allow commodity code check digit output



Prohibit commodity code check digit output

8.1.3 Enhancement of reading ability

The enhancement of barcode reading capability can be enabled and disabled by reading the following setting codes. After the reading ability enhancement is enabled, the reading ability of special codes such as defaced bar codes and QR code curved surfaces can be improved. Reading ability enhancement prohibition will increase the decoding speed.



* * Perception Enhancement Disable



Perception Enhancement Enable

8.2 One-dimensional barcode operation

8.2.1 EAN 13

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the EAN13 barcode reading function.



* * Allow EAN13 Read



Disable EAN13 Read

2. Enabling and disabling of additional code forced output function

The user can read the following setting codes to enable and disable the EAN13 additional code forced output function.



EAN13 is forced to output additional code



* * EAN13 is not required to output additional code

The user can read the following setting codes to configure the enabling and disabling of EAN13 additional codes.



EAN13-2 extra code enable



* * EAN13-2 extra code disable



EAN13-5-bit additional code enable



* * EAN13-5-bit additional code disable

3. Check bit output function enable and disable



* * Allow sending EAN13 check bits



Disable sending EAN13 check bits

8.2.2 EAN 8

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the EAN8 barcode reading function.



* * Enable EAN8 Read



Disable EAN8 Read

2. Enabling and disabling of additional code forced output function

The user can read the following setting codes to enable and disable the EAN8 additional code forced output function.



EAN8 forced to output additional code



* * EAN8 not required to output additional code

The user can read the following setting codes to configure the enabling and disabling of EAN8 additional codes.



EAN8-2-bit additional code enable



* * EAN8-2-bit additional code disable



EAN8-5 bits extra code enable



* * EAN8-5 bits extra code disable

3. Check bit output function enable and disable



* * Allow EAN8 check bits to be sent



Disable EAN8 check bits to be sent

8.2.3 UPC-A

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the UPC-a barcode reading

function.



* * Allow UPC-a Read



Disable UPC-a Read

2. Enabling and disabling of additional code forced output function

The user can read the following setting codes to enable and disable the UPC-a additional code forced output function.



UPC-a is forced to output additional codes



* * UPC-a does not require additional codes to be output

The user can read the following setting codes to configure the enabling and disabling of UPC-a additional code.



UPC-A-2 Bit Extra Code Enable



* * UPC-A-2 Bit Extra Code Disabled



UPC-A-5 Bit Extra Code Enable



* * UPC-A-5 Bit Extra Code Disabled

3. UPC-a conversion EAN13 enabled

The user can read the following setting code to enable/disable the conversion of UPC-a to EAN13.



Allow UPC-A to EAN13



* * Prohibit UPC-A to EAN13

4. Check bit output function enable and disable



* * Allow sending UPC-a check bits



Disable sending UPC-a check bits

8.2.4 UPC-E0

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the UPC-E0 barcode reading function.



* * Allow UPC-E0 to read



Disable UPC-E0 to read

2. Enabling and disabling of additional code forced output function

The user can read the following setting codes to enable and disable the UPC-E0 additional code forced output function.



UPC-E0 is forced to output additional code



* * UPC-E0 is not required to output additional code

The user can read the following setting codes to configure the enabling and disabling of the UPC-E0 additional code.



UPC-E0-2-bit additional code enable



* * UPC-E0-2-bit additional code disable



UPC-E0-5 Bit Extra Code Enable



* * UPC-E0-5 Bit Extra Code Disabled

3. Check bit output function enable and disable



* * Allow sending UPC-E0 check bits



Disable sending UPC-E0 check bits

8.2.5 UPC-E1

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the UPC-E1 barcode reading function.



* * Allow UPC-E1 Read



Disable UPC-E1 Read

2. Enabling and disabling of additional code forced output function

The user can read the following setting codes to enable and disable the UPC-E1 additional code forced output function.



UPC-E1 is forced to output additional code



* * UPC-E1 is not required to output additional code

The user can read the following setting codes to configure the enabling and disabling of UPC-E1 additional codes.



UPC-E1-2 bit additional code enable



* * UPC-E1-2 bit additional code disable



UPC-E1-5 bits extra code enable



* * UPC-E1-5 bits extra code disable

3. Check bit output function enable and disable



* * Allow sending UPC-E1 check bits



Disable sending UPC-E1 check bits

8.2.6 Code128

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the Code 128 barcode reading function.



* * Allow Code 128 Read



Disable Code 128 Read

2. Read length setting

The user can read the following setting codes to set the minimum and maximum read lengths of Code128.



* * Code 128 information is 0



Code 128 information is 4.



Code 128 Message up to 32



* * Code 128 Message up to 255

3. Code 128 plus prefix (11)

The user can read the following setting code to enable or disable the Code 128 barcode prefix (11) function.



Code 128 plus prefix (11)-on



* * Code 128 plus prefix (11)-off

8.2.7 Code39

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the Code39 barcode reading function.



* * Allow Code39 to read



Disable Code39 to read

2. Read length setting

The user can read the following setting codes to set the minimum and maximum read lengths of

Code39.



* * Code39 message minimum length is 0



Code39 message minimum length is 4



The maximum length of Code39 message is 32



* * The maximum length of Code39 message is 255

3. Start and End Output Settings

The user can read the following setting codes to set the Code39 start and end symbol output.



Code39 start character output



* * Code39 start character is not output



Code39 Terminator Output



* * Code39 Terminator Not Output

4. Code32 mode

The user can read the following setting code to set whether Code39 supports Code32 mode.



Code32 mode supported



* * Code32 mode not supported

The user can read the following setting code to set whether the Code32 prefix is output.



* * Code32 Prefix A output



Code32 Prefix A not output

5.FullAsc Mode

The user can read the following setting code to set whether Code39 supports FullAsc mode.



FullAsc mode is supported



* * FullAsc mode is not supported

6. Process the check

The user can set whether Code39 processes the verification by reading the following setting code.



Code39 handles checksum



* * Code39 does not handle checksum

7. Check digit output setting

The user can read the following setting code to set whether Code39 outputs the check digit.



Code39 outputs check bits



* * Code39 does not output check bits

8.2.8 Code93

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the Code93 barcode reading function.



* * Allow Code93 to read



Disable Code93 to read

2. Read length setting

The user can read the following setting codes to set the minimum and maximum reading length of Code93.



* * Code93 message minimum length is 0



Code93 message minimum length is 4



Code93 information is 32



* * Code93 information is 255

8.2.9 CodaBar

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the CodaBar barcode reading function.



* * Allow CodaBar to read



Disable CodaBar to read

2. Read length setting

The user can set the minimum and maximum reading length of CodaBar by reading the following setting codes.



* * CodaBar message is 0



CodaBar message is 4.



CodaBar information is 32



* *CodaBar information is 255

3. Start-stop output setting

The user can read the following setting codes to set the CodaBar start-stop output.



CodaBar start-stop symbol output



* * CodaBar start-stop symbol is not output

4. Verification processing

The user can set the CodaBar verification processing by reading the following setting code.



* * CodaBar does not process check



CodaBar Mod10 checksum



CodaBar Mod16 Calibration



CodaBar Dual Calibration

5. Check digit output setting

The user can read the following setting code to set the CodaBar check bit output.



CodaBar check bit output



* * CodaBar check bit is not output

8.2.10 Interleaved 2 of 5

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the Interleaved 2 of 5 barcode reading function.



Allow Interleaved 2 of 5 Reading



* * Disable Interleaved 2 of 5 Reading

2. Read length setting

The user can read the following setting codes to set the minimum and maximum Interleaved 2 of 5 reading length.



Interleaved 2 of 5 messages have a minimum length of 0



* * Interleaved 2 of 5 messages have a minimum length of 4



* * Interleaved 2 of 5 messages up to 32 in length



Interleaved 2 of 5 messages up to 255 in length

3. Validate format settings

The user can read the following setting code to set whether to process Interleaved 2 of 5.



Interleaved 2 of 5 checksum format Mod10



* * Interleaved 2 of 5 checksum format NONE

4. Check digit output setting

The user can read the following setting code to set whether to output the check bit of Interleaved 2 of 5.



Interleaved 2 of 5 Output Check Bit



* * Interleaved 2 of 5 Does Not Output Check Bit

8.2.11 Industrial 25

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the Industrial 25 barcode reading function.



Allow Industrial 25 to read



* * Disable Industrial 25 to read

2. Read length setting

The user can read the following setting codes to set the minimum and maximum reading length of Industrial 25.



Industrial 25 message minimum length is 0



* * Industrial 25 message minimum length is 4



* * Industrial 25 message up to 32 in length



Industrial 25 message up to 255 in length

3. Validate format settings

The user can read the following setting code to set whether the Industrial 25 is processed or not.



Industrial 25 Calibration Format Mod10



* * Industrial 25 Calibration Format NONE

4. Check digit output setting

The user can read the following setting code to set whether the Industrial 25 outputs the check bit.



Industrial 25 Output Check Digits



* * Industrial 25 does not output check digit

8.2.12 Matrix 2 of 5

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the Matrix 2 of 5 bar code reading function.



Allow Matrix 2 of 5 to read



* * Disable Matrix 2 of 5 to read

2. Read length setting

The user can set the minimum and maximum reading length of Matrix 2 of 5 by reading the following setting codes.



Matrix 2 of 5 message minimum length 0



* * Matrix 2 of 5 message minimum length 4



* * Matrix 2 of 5 message up to 32 in length



Matrix 2 of 5 message up to 255 in length

3. Validate format settings

The user can set the Matrix 2 of 5 check format by reading the following setting code.



Matrix2 of 5 check format is Mod 10



* * Matrix 2 of 5 check format is None

4. Check digit output setting

The user can read the following setting code to set whether Matrix2 of 5 outputs the check bit.



Matrix2 of 5 Output Check Bit



* * Matrix2 of 5 does not output check bit

8.2.13 Code11

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the Code 11 barcode reading function.



Allow Code 11 to read



* * Disable Code 11 to read

2. Read length setting

The user can read the following setting codes to set the minimum and maximum reading length of Code11.



The minimum length of Code11 message is 0



* * The minimum length of Code11 message is 4



* *Code11 information is 32



Code11 information is 255.

3. Verification mode setting

The user can read the following setting code to set the Code11 verification mode.



* * Code 11-1bit check



Code 11-2bit check

4. Check digit output setting

The user can read the following setting code to set the Code11 check bit output.



Code 11 check digit output



* * Code 11 check digit is not output

8.2.14 MSI Plessey

1. Permission and prohibition of reading function



Allow MSI Plessey Read



* * Disable MSI Plessey Read

2. Read length setting

The user can set the minimum and maximum reading length of MSI Plessey by reading the following setting codes.



The minimum length of MSI Plessey message is 0



* * The minimum length of MSI Plessey message is 4



* * MSI Plessey Message up to 32



MSI Plessey Message up to 255

3. Verification mode setting

The user can read the following setting code to set the MSI Plessey verification mode.



* * MSI Plessey Single MOD 10 Check



MSI Plessey Dual MOD 10 Check

4. Check digit output setting

The user can set the MSI Plessey check bit output by reading the following setting code.



MSI Plessey Check Bit Output



* * MSI Plessey Check Bit Not Output

8.2.15 RSS-14

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the RSS-14 bar code reading function.



Allow RSS-14 reading



* * Disable RSS-14 reading

2.AI () output enable and disable

The user can read the following setting code to set whether the RSS-14 bar code AI () is output.



* * RSS-14 AI Output with Parentheses



RSS-14 AI Output without Parentheses

3. Check bit output function enable and disable



RSS-14 check bit output



* * RSS-14 check bit not output

8.2.16 Qualified RSS

1. Permission and prohibition of reading function

Users can read the following setting codes to allow and prohibit the limited RSS barcode reading function.



Allow reading of restricted RSS



* * Disable reading of restricted RSS

2.AI () output enable and disable

The user can read the following setting code to set whether the limited RSS barcode AI () is output.



* * Qualified RSS AI Parenthesized Output



Qualified RSS AI No Parenthesized Output

3. Check bit output function enable and disable



Qualified RSS check bit output



* * Qualified RSS check bit is not output

8.2.17 RSS Extended

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the extended RSS barcode reading function.



Enable reading of extended RSS



* * Disable reading of extended RSS

2. Read length setting



Minimum length of extended RSS message is 0



* * Minimum length of extended RSS message is 4



* * Extended RSS messages up to 32 in length



Extended RSS messages up to 255 in length

3.AI () output enable and disable

The user can read the following setting code to set whether the extended RSS barcode AI () is output.



* * Extended RSS AI Bracketed Output



Extended RSS AI No Bracketed Output

4. Check bit output function enable and disable



Extended RSS Check Bit Output



* * Extended RSS Check Bit is not output

8.2.18 Standard 2 of 5

1. Permission and prohibition of reading function



Allow Standard 2 of 5 reading



* * Disable Standard 2 of 5 reading

2. Read length setting

The user can read the following setting codes to set the minimum and maximum reading length of Standard 2 of 5.



Standard 2 of 5 messages have a minimum length of 0



* * Standard 2 of 5 messages have a minimum length of 4



* * Standard 2 of 5 messages up to 32 in length



Standard 2 of 5 messages up to 255 in length

3. Verification mode setting

The user can read the following setting code to set the Standard 2 of 5 verification mode.



Standard 2 of 5 Calibration On



* * Standard 2 of 5 Calibration Off

4. Check digit output setting

The user can set the MSI Plessey check bit output by reading the following setting code.



Standard 2 of 5 check digit output



* * Standard 2 of 5 check digit is not output

8.2.19 Plessey

1. Permission and prohibition of reading function



Allow Plessey to read



* * Disable Plessey to read

2. Read length setting

The user can set the Plessey minimum and maximum read lengths by reading the following setting codes.



Plessey message minimum length is 0



* * Plessey message minimum length is 4



* * Plessey messages up to 32 in length



Plessey messages up to 255 in length

3. Verification mode setting

The user can read the following setting code to set the Plessey verification mode.



Plessey Verification On



* * Plessey Verification Off

4. Check digit output setting

The user can set the MSI Plessey check bit output by reading the following setting code.



Plessey check bit output



* * Plessey check bit not output

8.2.20 ChinaPost 25

1. Permission and prohibition of reading function



Allow ChinaPost 25 to read



* * Prohibit ChinaPost 25 to read

2. Read length setting

The user can set the shortest and longest reading length of ChinaPost 25 by reading the following setting codes.



The shortest length of ChinaPost 25 message is 0



* * The shortest length of ChinaPost 25 message is 4



* * The maximum length of ChinaPost 25 message is 32.



The maximum length of ChinaPost 25 message is 255.

3. Verification mode setting

The user can read the following setting code to set the ChinaPost 25 verification mode.



ChinaPost 25 Verification On



* * ChinaPost 25 Verification Off

4. Check digit output setting

The user can read the following setting code to set the MSI ChinaPost 25 check digit output.



ChinaPost 25 Check Bit Output



* * ChinaPost 25 Check Bit Not Output

8.3 Two-dimensional barcode operation

8.3.1 QR Code

1.QR Code reading permission and prohibition

The user can read the following setting codes to enable and disable the QR Code reading function.



* * Allow QR Read



Disable QR Read

2. QR Mode 1 Read On and Off

The user can turn on or off the QR mode 1 read support by reading the following setting code.



QR Mode 1-On



* * QR Mode 1-Off

3. QR plus prefix (11) on and off

The user can turn on or off the QR prefix (11) function by reading the following setting code.



QR Plus Prefix (11)-On



* * QR Plus Prefix (11)-Off

8.3.2 Data Matrix （DM）

The user can read the following setting codes to enable and disable the Data Matrix reading function.



* * Allow DM Read



Disable DM Read

The user can read the following setting codes to allow and prohibit the simultaneous reading of multiple DM codes.



Allow multiple DM functions to be read simultaneously



* * Disable multiple DM functions to be read simultaneously

8.3.3 PDF417

The user can read the following setting codes to enable and disable the PDF417 reading function.



* * Allow PDF 417 to read



Disable PDF 417 to read

8.3.4 Micro QR

The user can read the following setting codes to enable and disable the Micro QR reading function.



* * Allow Micro QR Read



Disable Micro QR Read

8.3.5 Han Xin Code

The user can read the following setting codes to allow and prohibit the Chinese code reading function.



Allow Chinese code reading



* * Forbid Chinese code reading

8.3.6 Micro PDF 417

The user can read the following setting codes to enable and disable the Micro PDF 417 reading function.



* * Allow Micro PDF 417 to read



Disable Micro PDF 417 to read

8.3.7 Code 16K

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the Code 16K reading function.



Allow Code 16K reading



* * Disable Code 16K reading

2. Read length setting



Code 16K message minimum length is 0



* * Code 16K message minimum length is 4



* * The maximum length of Code 16K information is 32.



The maximum length of Code 16K information is 255.

8.3.8 Code 49

1. Permission and prohibition of reading function

The user can read the following setting codes to enable and disable the Code 49 reading function.



Allow to read Code 49



* * Disable to read Code 49

2. Read length setting



Code 49 Message Minimum Length 0



* * Code 49 Message Minimum Length 4



* * The maximum length of Code 49 information is 32.



The maximum length of Code 49 information is 255.

8.3.9 Maxi Code

The user can read the following setting codes to enable and disable the Maxi Code reading function.



Allow Maxi Code Reading



* * Disable Maxi Code Reading

8.3.10 Aztec

The user can read the following setting codes to enable and disable the Aztec reading function.



Allow Aztec to read



* * Disable Aztec to read

8.3.11 GS1 Composite

The user can read the following setting codes to enable and disable the GS1 Composite reading function.



Allow to read GS1 Composite



* * Disable to read GS1 Composite

Chapter 9 Save and Cancel

9.1 Preservation

After reading the "data code", it is necessary to read the "save" setting code to save the data.



Preservation

9.2 Cancellation

When an error occurs in the read data, the following setting codes can be read to cancel the current setting, cancel the previous read one-bit data, and cancel the previous read one-string data.



Cancels one bit of data previously read



Cancels one string of data previously read



Cancel the current setting

Note: To cancel the current setting, you need to cancel all the data codes read before, and you need to reset them after canceling.

Appendix

Appendix A: Data Code

0 ～ 9



0



1



2



3



4



5



6



7



8



9

A ～ F



A



B



C



D



E



F

Appendix B: Examples of Parameter Settings

- Example 1: Modify the prefix custom to DATA

1. Query the character table to obtain the hexadecimal values corresponding to the four characters of "DATA": "44", "41", "54" and "41"

2. Read the "Open setting code"; (if it is enabled, this step can be skipped)

3. Read the "modify prefix" setting code

4. Read data code "4", "4", "1" and "5" in turn.

5. Read "Save" setting code

- Example 2: Modify the Suffix Custom to DATA

1. Query the character table to obtain the hexadecimal values corresponding to the four characters of "DATA": "44", "41", "54" and "41"

2. Read the "Open setting code"; (if it is enabled, this step can be skipped)

3. Read the "modify suffix" setting code

4. Read data code "4", "4", "1" and "5" in turn.

5. Read "Save" setting code

- Example 3: Modify the CODE ID of EAN13 to "A"

1. Query the character table to obtain the hexadecimal value corresponding to the "A" character: "41"

2. Read the "Open setting code"; (if it is enabled, this step can be skipped)

3. Read and modify the CODE ID "setting code of EAN13

4. Read data code "4" and "1" in turn

5. Read "Save" setting code

- Example 4:

[Transfer Start Segment Only] When the decoding information is "1234567890ABC", the first 10 bytes "1234567890" are output.

1. Query the character table to obtain the hexadecimal value corresponding to the "10" character: "0A"

2. Read the "Open setting code"; (if it is enabled, this step can be skipped)

3. Read the setting code of "Modify Start Section Length"

4. Read data code "0" and "A" in turn

5. Read "Save" setting code

6. Read the "Transmit Start Segment Only" setting code

◆ Example 5:

[Transfer End segment only] When the decoding information is "1234567890ABC", the first 10 bytes "1234567890" are output.

1. Query the character table to obtain the hexadecimal value corresponding to the "10" character: "0A"

2. Read the "Open setting code"; (if it is enabled, this step can be skipped)

3. Read the setting code of "Modify End Section Length"

4. Read data code "0" and "A" in turn

5. Read "Save" setting code

6. Read "Transmit End Segment Only" setting code

◆ Example 6:

[Transfer Center segment only] When the decoding information is "1234567890ABC1234567890", the middle 3 bytes "ABC" are output.

1. Query the character table to obtain the hexadecimal value corresponding to the "10" character: "0A"

2. Read the "Open setting code"; (if it is enabled, this step can be skipped)

3. Read the setting code of "Modify End Section Length"

4. Read data code "0" and "A" in turn

5. Read "Save" setting code

6. Read the setting code of "Modify Start Section Length"

7. Read data code "0" and "A" in turn

8. Read "Save" setting code

9. Read Transmit Center Segment Only setting code

◆ Example 7: Modify RF information to "FAIL"

1. Query the character table to obtain the hexadecimal value corresponding to the "FAIL" character: "46" 41 "49" 4C "

2. Read the "Open setting code"; (if it is enabled, this step can be skipped)

3. Read the setting code of "modify RF information"

4. Read the data code "4", "6", "4", "1," 4, "9," 4 and "C" in turn

5. Read "Save" setting code

◆ Example 8: Modify the GS substitution character to "D"

1. Query the character table to obtain the hexadecimal value corresponding to the "D" character: "44"

2. Read the "Open setting code"; (if it is enabled, this step can be skipped)

3. Read the "GS character replacement enable" setting code (if it is enabled, this step can be skipped)

4. Read the setting code of "GS substitution character modification"

5. Read data code "4" and "4" in turn

6. Read "Save" setting code

Appendix C: Default Settings Table

Parameter name		Default settings	Remark
Setting code			
Set the code function		Open	
Communication settings			
Communication mode		USB-HID	
TTL-232	Serial port baud rate	9600bps	
	Serial port check bit	No check digit	
	Serial port data bit	8 bits	
	Serial port stop bit	1 bit	
	Hardware flow control	None	
USB-HID	USB-HID Device Selection	USB-KBW	
	PC access period to HID device	1ms	Range: 1 ~ 64 ms
	HID pre-release interval	1ms	Range: 1 to 63 ms
	Interval after HID release	1ms	Range: 1 to 63 ms
	CapsLock status	Off	
	HID leading key output	Disable	
Scan code mode parameters			
Default reading mode:		**Manual mode**	
Manual mode	Trigger mode	Level trigger	
	Duration of single code reading	5000ms	Range: 100ms ~ 25500ms, Step size 100ms, 0 for infinite length
	Deep sleep	Close	Sleep duration: 0-3276700ms Step length: 100ms

Command trigger mode	Trigger condition	Command trigger	7E 00 08 01 00 02 01 AB CD
	Trigger a command response	Permission	
	Duration of single code reading	5000ms	Range: 100ms ~ 25 500ms Step size 100ms 0 x00: infinitely long
Continuous mode	Reading interval	1000ms	Range: 0 ~ 25 500ms Step size 100ms
	Same code reading delay	No delay	Delay time range: 100ms ~ 25500ms Step size 100ms 0 x00: infinite delay
	Duration of single code reading	5000ms	Range: 100ms ~ 25 500ms Step size 100ms 0 x00: infinitely long
	Continuous Mode Key Pause Switch	Support	
Induction mode	Duration of single code reading	5000ms	Range: 100 ~ 25 500ms Step size 100ms 0 x00: infinitely long
	Length of reading interval	1000ms	Range: 0 ~ 25 500ms Step size 100ms
	Same code reading delay	No delay	Delay time range: 100ms ~ 25500ms Step size 100ms 0 x00: infinite delay
	Sensitivity	Normal sensitivity	Sensitivity parameter 1/2: 00-FF The higher the parameter, the lower the sensitivity
	Duration of image stabilization	0ms	Range: 0 ~ 25 500ms Step size 100ms

General settings			
Fill light/positioning	Locating light	Light up when taking pictures	
	Fill light	Light up when taking pictures	
Buzzer	Buzzer setting	Passive buzzer	
	Passive buzzer	Intermediate frequency	
	Active buzzer	High level	Active high during operation, active low during idle
	Mute	Close	
Power on tone		Open	
Read the prompt sound of success		Open	
Duration of recognition success prompt tone		60ms	Range 0-255 ms
Reading success LED prompt		Open	
Set the prompt tone for code recognition		Open	
Output data format		GBK	
Keyboard		America	
Virtual/standard keyboard		Standard	
Control character output		Close	The virtual keyboard is off by default, Default control character off mode after on
Image mirror flip		Prohibition	
Serial port simulating HID protocol		Disable	
Invoicing mode		Enable/Local Billing Mode	
Data editing			
Prefix		Do not add	
Suffix		Do not add	
CODE ID		Do not add	

AIM ID	Do not add	
Terminator	CR（0x0D）	
Data segment interception	Transfers the entire Data segment	
RF information	Do not send	
Output protocol	Data only output	
GS character substitution	Prohibition	
Web site code reading	Permission	
Code system setting		
Reverse phase	Prohibition	
Image mirror flip	Prohibition	
Commodity code check output	Enable	EAN13/EAN8/UPC-A/UPC-E0/UPC-E1
Reading ability is strengthened	Prohibition	
EAN-13		
Read	Permission	
Forcibly output additional code	Not required	
2-digit additional code	Prohibition	
5-digit additional code	Prohibition	
Check digit output	Output	
EAN-8		
Read	Permission	
Forcibly output additional code	Not required	
2-digit additional code	Prohibition	
5-digit additional code	Prohibition	
Check digit output	Output	
UPC-A		
Read	Permission	
Forcibly output additional code	Not required	
2-digit additional code	Prohibition	

5-digit additional code	Prohibition	
UPC-A to EAN13	Prohibition	
Check digit output	Output	
UPC-E0		
Read	Permission	
Forcibly output additional code	Not required	
2-digit additional code	Prohibition	
5-digit additional code	Prohibition	
Check digit output	Output	
UPC-E1		
Read	Permission	
Forcibly output additional code	Not required	
2-digit additional code	Prohibition	
5-digit additional code	Prohibition	
Check digit output	Output	
Code128		
Read	Permission	
Minimum message length	0	
Maximum message length	255	
Add Prefix (11) Function	Close	
Code 39		
Read	Permission	
Minimum message length	0	
Maximum message length	255	
Start character	No output	
Terminator	No output	
Code32	Not enabled	
Code32 prefix output	Output	Premise: Code32 enabled
FullAsc mode	Not enabled	

Process the check	Do not process	
Check digit output	No output	
Code 93		
Read	Permission	
Minimum message length	0	
Maximum message length	255	
CodaBar		
Read	Permission	
Minimum message length	0	
Maximum message length	255	
Start and stop characters	No output	
Interleaved 2 of 5		
Read	Prohibition	
Minimum message length	4	
Maximum message length	32	
Check format	None	
Check digit output	No output	
Industrial 25		
Read	Prohibition	
Minimum message length	4	
Maximum message length	32	
Check format	None	
Check digit output	No output	
Matrix 2 of 5		
Read	Prohibition	
Minimum message length	4	
Maximum message length	32	
Check format	None	
Check digit output	No output	

Code11		
Read	Prohibition	
Minimum message length	4	
Maximum message length	32	
Verification mode	1bit	
Check digit output	No output	
MSI Plessey		
Read	Prohibition	
Minimum message length	4	
Maximum message length	32	
Verification mode	Single Mod10	
Check digit output	No output	
RSS-14		
Read	Prohibition	
Is AI bracketed	Bracketed	
Qualified RSS		
Read	Prohibition	
Is AI bracketed	Bracketed	
Extended RSS		
Read	Prohibition	
Minimum message length	4	
Maximum message length	32	
Is AI bracketed	Bracketed	
Standard 2 of 5		
Read	Prohibition	
Minimum message length	4	
Maximum message length	32	
Check	Close	
Check digit output	No output	

Plessey		
Read	Prohibition	
Minimum message length	4	
Maximum message length	32	
Check	Close	
Check digit output	No output	
ChinaPost 25		
Read	Prohibition	
Minimum message length	4	
Maximum message length	32	
Check	Close	
Check digit output	No output	
QR Code		
Read	Permission	
Mode 1 reading	Close	
Add Prefix (11)	Close	
PDF417		
Read	Permission	
Data Matrix		
Read	Permission	
Read multiple DM barcodes at the same time	Prohibition	
Micro QR		
Read	Permission	
Han Xin Code		
Read	Prohibition	
Micro PDF417		
Read	Permission	
Code 16K		
Read	Prohibition	

Maxi Code		
Read	Prohibition	
Aztec		
Read	Prohibition	

Appendix D: Common Serial Command

Function	Serial port command	Return instruction
Switch to manual mode (The positioning light and fill light are on when taking photos)	7E 00 08 01 00 00 D4 FF 60	02 00 00 01 00 33 31
Toggle Command Trigger Mode (The positioning light and fill light are on when taking photos)	7E 00 08 01 00 00 D5 EF 41	02 00 00 01 00 33 31
Switch to continuous mode (The positioning light and fill light are on when taking photos)	7E 00 08 01 00 00 D6 DF 22	02 00 00 01 00 33 31
Switch the sensing mode (The positioning light and fill light are on when taking photos)	7E 00 08 01 00 00 D7 CF 03	02 00 00 01 00 33 31
Command Trigger Mode Trigger Command	7E 00 08 01 00 02 01 02 DA	02 00 00 01 00 33 31
Trigger Command Acknowledge Allow	7E 00 08 01 00 01 04 07 2C	02 00 00 01 00 33 31
Trigger Command Response Inhibit	7E 00 08 01 00 01 84 96 A4	02 00 00 01 00 33 31
Set the reading interval of 5S	7E 00 08 01 00 05 32 9D 7D	02 00 00 01 00 33 31
Set the duration of single code reading as 10 s	7E 00 08 01 00 06 64 F2 1D	02 00 00 01 00 33 31
Set the baud rate (115200 bps)	7E 00 08 02 00 2A 1A 00 E4 7E	02 00 00 01 00 33 31

Save settings to internal Flash	7E 00 09 01 00 00 00 DE C8	02 00 00 01 00 33 31
Query baud rate (115200 bps)	7E 00 07 01 00 2A 02 D8 0F	02 00 00 02 1A 00 82 D8
Restore factory settings	7E 00 09 01 00 00 FF C0 38	02 00 00 01 00 33 31
Set Terminator (CRLF)	7E 00 08 01 00 60 21 4B F0	02 00 00 01 00 33 31
Current settings are saved as user factory settings	7E 00 08 01 00 D9 56 E1 15	02 00 00 01 00 33 31
Restore user custom factory settings	7E 00 08 01 00 D9 55 D1 76	02 00 00 01 00 33 31

Appendix E: Code ID List

Barcode type	Corresponding character	Flag bit address
EAN-13	d	0x91
EAN-8	d	0x92
UPC-A	c	0x93
UPC-E0	c	0x94
UPC-E1	c	0x95
Code 128	j	0x96
Code 39	b	0x97
Code 93	i	0x98
Codabar	a	0x99
Interleaved 2 of 5	e	0x9A
Industrial 2 of 5	D	0x9B
Matrix 2 of 5	v	0x9C

Code 11	H	0x9D
MSI Plessey	m	0x9E
GS1 Databar(RSS-14)	R	0x9F
GS1 Databar(RSS-Limited)	R	0xA0
GS1 Databar(RSS-Expanded)	R	0xA1
QR Code	Q	0xA2
Data Matrix	u	0xA3
PDF 417	r	0xA4
Micro QR	X	0xA5
Han Xin Code	h	0xA6
Micro PDF417	R	0xA7
Standard 2 of 5	f	0xA8
Plessey	n	0xA9
ChinaPost 25	X	0xAA
Code 16K	X	0xAB
Code 49	X	0xAC
Maxi Code	x	0xAD
Aztec	z	0xAE

Appendix F: ASCII Code Table

Hexadecimal	Decimal system	Character
00	0	NUL (Null char.)
01	1	SOH (Start of Header)
02	2	STX (Start of Text)
03	3	ETX (End of Text)
04	4	EOT (End of Transmission)
05	5	ENQ (Enquiry)
06	6	ACK (Acknowledgment)
07	7	BEL (Bell)
08	8	BS (Backspace)
09	9	HT (Horizontal Tab)
0a	10	LF (Line Feed)
0b	11	VT (Vertical Tab)
0c	12	FF (Form Feed)
0d	13	CR (Carriage Return)
0e	14	SO (Shift Out)
0f	15	SI (Shift In)
10	16	DLE (Data Link Escape)
11	17	DC1 (XON) (Device Control 1)
12	18	DC2 (Device Control 2)
13	19	DC3 (XOFF) (Device Control 3)
14	20	DC4 (Device Control 4)
15	21	NAK (Negative Acknowledgment)
16	22	SYN (Synchronous Idle)
17	23	ETB (End of Trans. Block)
18	24	CAN (Cancel)

19	25	EM (End of Medium)
1a	26	SUB (Substitute)
1b	27	ESC (Escape)
1c	28	FS (File Separator)
1d	29	GS (Group Separator)
1e	30	RS (Request to Send)
1f	31	US (Unit Separator)
20	32	SP (Space)
21	33	! (Exclamation Mark)
22	34	" (Double Quote)
23	35	# (Number Sign)
24	36	$ (Dollar Sign)
25	37	% (Percent)
26	38	& (Ampersand)
27	39	` (Single Quote)
28	40	((Right / Closing Parenthesis)
29	41	) (Right / Closing Parenthesis)
2a	42	* (Asterisk)
2b	43	+ (Plus)
2c	44	, (Comma)
2d	45	- (Minus / Dash)
2e	46	. (Dot)
2f	47	/ (Forward Slash)
30	48	0
31	49	1
32	50	2
33	51	3
34	52	4

35	53	5
36	54	6
37	55	7
38	56	8
39	57	9
3a	58	: (Colon)
3b	59	; (Semi-colon)
3c	60	< (Less Than)
3d	61	= (Equal Sign)
3e	62	> (Greater Than)
3f	63	? (Question Mark)
40	64	@ (AT Symbol)
41	65	A
42	66	B
43	67	C
44	68	D
45	69	E
46	70	F
47	71	G
48	72	H
49	73	I
4a	74	J
4b	75	K
4c	76	L
4d	77	M
4e	78	N
4f	79	O
50	80	P

51	81	Q
52	82	R
53	83	S
54	84	T
55	85	U
56	86	V
57	87	W
58	88	X
59	89	Y
5a	90	Z
5b	91	[(Left / Opening Bracket)
5c	92	\ (Back Slash)
5d	93	] (Right / Closing Bracket)
5e	94	^ (Caret / Circumflex)
5f	95	_ (Underscore)
60	96	' (Grave Accent)
61	97	a
62	98	b
63	99	c
64	100	d
65	101	e
66	102	f
67	103	g
68	104	h
69	105	i
6a	106	j
6b	107	k
6c	108	l

6d	109	m
6e	110	n
6f	111	o
70	112	p
71	113	q
72	114	r
73	115	s
74	116	t
75	117	u
76	118	v
77	119	w
78	120	x
79	121	y
7a	122	z
7b	123	{ (Left/ Opening Brace)
7c	124	| (Vertical Bar)
7d	125	} (Right/Closing Brace)
7e	126	~ (Tilde)
7f	127	DEL (Delete)

Appendix G: List of Batch Setup Code Parameters

Set the code function	Set the code parameter content	Remark
Open the setting code	00000000	If the setting code is off, you need to turn on the setting code first

TTL-232 serial port mode	01000000	
USB-HID Mode	01000001	
USB-232 Virtual Serial Port Mode	01000002	
HID & TTL Simultaneous Output Mode	01000003	
HID-KBW	01010000	
HID-POS	01010001	
1200bps	010209C4	
4800bps	01020271	
9600bps	01020139	
14400bps	010200D0	
19200bps	0102009C	
38400bps	0102004E	
57600bps	01020034	
115200bps	0102001A	
No Checksum (NONE)	01030000	
Odd parity (ODD)	01030001	
Even parity (EVEN)	01030002	
PC access cycle to HID device-1ms	01040001	The last two digits of the parameter can be modified for other durations. The last two digits of the parameter can be modified for other durations.
PC access cycle to HID device-3ms	01040003	
PC access cycle to HID device-5ms	01040005	
PC access cycle to HID device-10ms	0104000A	
Time interval before HID release-1ms	01050001	For other durations, the last two digits of the parameter can be modified.
Time interval before HID release-2ms	01050002	
Time interval before HID release-5ms	01050005	
Time interval before HID release-10ms	0105000A	
Time interval after HID release-1ms	01060001	For other durations, the last two digits of the parameter can be modified.
Time interval after HID release-2ms	01060002	
Time interval after HID release-5ms	01060005	

Time interval after HID release-10ms	0106000A	
CapsLock-Off	01070000	
CapsLock-On	01070001	
HID leading inhibit	01080000	
HID leading allowed	01080001	
Manual mode	02000000	
Level trigger	02010000	
Edge trigger	02010001	
Duration of single code reading-1000ms	0202000A	For other durations, the last two digits of the parameter can be modified.
Duration of single code reading-3000ms	0202001E	
Duration of single code reading-5000ms	02020032	
Duration of single code reading-10000ms	02020064	
Duration of single code reading-infinite	02020000	
Command trigger mode	02000001	
Continuous mode	02000002	
Trigger Command Acknowledge Allow	020A0001	
Trigger Command Response Inhibit	020A0000	
Continuous mode key pause is not supported	020A0010	
Continuous Mode Key Pause Support	020A0011	
Read Interval-No Interval	02050000	For other durations, the last two digits of the parameter can be modified.
Reading interval-500ms	02050005	
Reading interval-1000ms	0205000A	
Reading interval-3000ms	0205001E	
Reading interval-5000ms	02050032	
Same code reading delay closing	02060000	For the setting of duration parameter, the same code reading delay must be started first
Same code reading delay on	02060001	
Same code reading delay time-infinite delay	02070000	

Same code reading delay time: -500ms	02070005	For other durations, the last two digits of the parameter can be modified.
Same code reading delay time: -1000ms	0207000A	
Same code reading delay time: -3000ms	0207001E	
Same code reading delay time: -5000ms	02070032	
Induction mode	02000003	
Normal sensitivity	0209640A	
Low sensitivity	020932A0	
High sensitivity	0209320A	
Very high sensitivity	02093205	
Image stabilization duration -0ms	02080000	For other durations, the last two digits of the parameter can be modified.
Image stabilization time-100ms	02080001	
Image stabilization duration-400ms	02080004	
Image stabilization time-1000ms	0208000A	
Image stabilization time-2000ms	02080014	
The fill light is lit when taking a picture.	03000000	
Fill light-normally on	03000001	
Fill light-normally off	03000002	
Locator Light-Illuminated when taking pictures	03010000	
Positioning light-always on when taking pictures	03010003	
Locating light-normally on	03010001	
Locating lamp-normally off	03010002	
Deep sleep function on	02030000	
Deep sleep function is off	02030001	
Mute-On	04000000	
Mute-Off	04000001	
Passive buzzer settings	04010005	
Passive-low frequency	04010000	
Passive-if	04010001	

Passive-HF	04010002	
Active buzzer setting	04010006	
Active Operating Level-High	04010003	
Active Operating Level-Low	04010004	
Set Tone-On	04020000	
Set Tone-Off	04020001	
Power On Tone-On	04030000	
Power On Tone-Off	04030001	
Reading success LED prompt-ON	04040000	
Reading Success LED Prompt-Off	04040001	
Read Success Tone-On	04040002	
Recognize successful prompt tone-off	04040003	
Duration of successful reading prompt tone: -30ms	0404011E	For other durations, the last two digits of the parameter can be modified.
Duration of successful reading prompt tone-60ms	0404013C	
Duration of successful reading prompt tone: -90ms	0404015A	
Duration of successful reading prompt tone-120ms	04040178	
Output Data Format-GBK	04050000	
Output Data Format-UTF8	04050001	
Output Data Format-Raw Data	04050002	
Output Data Format-UNICODE	04050003	
Output data shield Chinese	04050100	
Output data is not shielded in Chinese	04050101	
Base64 decoding is off	04050200	
Base64 decoding is on	04050201	
American keyboard	04060000	
Czech keyboard	04060001	
French keyboard	04060002	
German keyboard	04060003	

Hungarian keyboard	04060004	
Italian keyboard	04060005	
Japanese keyboard	04060006	
Spanish keyboard	04060007	
Turkish Q keyboard	04060008	
Turkish F keyboard	04060009	
Mexican Keyboard (Latin)	0406000A	
Standard Keyboard	04070000	
Virtual keyboard	04070001	
Virtual Keyboard Ctrl Mode	04070010	
Virtual Keyboard _ Alt Mode	04070011	
Control character output off	04070012	
Image Mirror Flip-On	04080000	
Image Mirror Flip-Off	04080001	
Reverse phase inhibit	04090000	
Inversion is allowed	04090001	
Invoicing mode enabled	040B0000	
Invoicing mode disabled	040B0001	
Local billing mode	040B1000	
Online invoicing mode	040B1100	
Keypad numeric output on	040C0000	
Keypad numeric output off	040C0001	
Keypad Operator Output On	040C0002	
Keypad Operator Output Off	040C0003	
Allow prefixes to be added	05000000	
Prefix addition is prohibited	05000001	
Modify the prefix	05000002	
Suffixes are allowed	05010000	

Adding a suffix is prohibited	05010001	
Modify the suffix	05010002	
Allow CODE ID addition	05020000	
Disable adding CODE ID	05020001	
Restore CODE ID default	05020002	
Modifying the CODE ID of EAN13	05030000	
Modifying the CODE ID of EAN8	05030001	
Modifying the CODE ID of UPC-A	05030002	
Modify the CODE ID of UPCE0	05030003	
Modify the CODE ID of UPCE1	05030004	
Modifying the CODE ID of CODE 128	05030005	
Modifying the CODE ID of CODE39	05030006	
Modifying the CODE ID of CODE93	05030007	
Modify the CODE ID of CodaBar	05030008	
Modifying the CODE ID of Interleaved 2 of 5	05030009	
Modifying the CODE ID of Industrial 25	0503000A	
Modifying the CODE ID of Matrix 2 of 5	0503000B	
Modify CODE ID for CODE 11	0503000C	
Modify the CODE ID of MSI Plessey	0503000D	
Modify the CODE ID of RSS	0503000E	
Modify the CODE ID of a qualified RSS	05030010	
Modifying the CODE ID of Extended RSS	05030011	
Modifying the CODE ID of a QR CODE	05030012	
Modifying the CODE ID of a DataMatrix	05030013	
Modify the CODE ID of the qualified PDF 417	05030014	
Modifying the CODE ID of a Micro QR	05030015	
Modify the CODE ID of Han Xin Code	05030016	
Modifying the CODE ID of Micro PDF 417	05030017	

Modify Standard 2 of 5 Code ID	05030018	
Modify Plessey's CODE ID	05030019	
Modify the CODE ID of ChinaPost 25	0503001A	
Modify the CODE ID of Code 16K	0503001B	
Modifying the CODE ID of Code 49	0503001C	
Modify the CODE ID of the Maxi Code	0503001D	
Modify the CODE ID of Aztec	0503001E	
Modifying the CODE ID of a GS1 Composite	0503001F	
Closes the terminator	05040000	
Add terminator CR	05040001	
Add terminator TAB	05040002	
Add terminator CRLF	05040003	
Transfer the entire Data	05050000	
Transmit Start segment only	05050001	
Transmit End segment only	05050002	
Transfer only Center	05050003	
Modify Start Segment Length	05050004	
Modify End Segment Length	05050005	
Allow RF information to be sent	05060000	
Prohibit sending RF information	05060001	
Modify the RF information	05060002	
Data only output	05070000	
With protocol output	05070001	
GS replacement on	050A0000	
GS replacement off	050A0001	
GS Replacement Information Modification	050A0002	
Allow to read the web address code	050B0000	
It is forbidden to read the web address code	050B0001	

* * Forbidden (AIM prefix is not added to the decoded message)	050C0001	
Enable (add AIM prefix character to decode message)	050C0000	
* * CodeID + AIM + Custom	050D0000	
AIM + CodeID + Custom	050D0001	
AIM + Custom + CodeID	050D0002	
CodeID + Custom + AIM	050D0003	
Custom + CodeID + AIM	050D0004	
Custom + AIM + CodeID	050D0005	
Fast POS mode	06000000	
Serial port & full code open mode	06000001	
Allow all types to be read	07000000	
Disable reading of all types	07000001	
Permitting the reinforcement of reading ability	07000007	
Forbidden Reading Enhancement	07000008	
Open the default reading type	07000002	
Allow sending commodity code check bit	05090000	
Prohibit sending commodity code check bit	05090001	
Enable to read EAN13	07010000	
Reading of EAN13 is prohibited	07010100	
EAN13 forced output additional code	07011000	
EAN13 does not require additional codes to be output	07011100	
EAN13-2 Bit Extra Code Enable	07012000	
EAN13-2 Bit Additional Code Disable	07012100	
EAN13-5-bit additional code enable	07013000	
EAN13-5-bit additional code disable	07013100	

Allow EAN13 check bit to be sent	07014000	
Prohibit sending EAN13 check bit	07014100	
Enable to read EAN8	07020000	
Reading of EAN8 is prohibited	07020100	
EAN8 forced output additional code	07021000	
EAN8 does not require additional codes to be output	07021100	
EAN8-2-bit additional code enable	07022000	
EAN8-2-bit additional code disable	07022100	
EAN8-5-bit additional code enable	07023000	
EAN8-5-bit additional code disable	07023100	
Enable to send EAN8 check bit	07024000	
Disabling the EAN8 check bit	07024100	
Allow to read UPC-a	07030000	
Disable reading of UPC-a	07030100	
UPC-a forced output additional code	07031000	
UPC-a does not require additional codes to be output	07031100	
UPC-A-2 bit additional code enable	07032000	
UPC-A-2 bit additional code disable	07032100	
UPC-A-5 bit additional code enabled	07033000	
UPC-A-5 additional code disable	07033100	
Allow UPC-a to EAN13	05080000	
Disable UPC-a to EAN13	05080001	
Allow UPC-a check bit to be sent	07034000	
Prohibit sending of UPC-a check bit	07034100	
Allow to read UPC-E0	07040000	
Reading of UPC-E0 is prohibited	07040100	

UPC-E0 forced output additional code	07041000	
UPC-E0 does not require additional codes to be output	07041100	
UPC-E0-2-bit additional code enabled	07042000	
UPC-E0-2-bit additional code disable	07042100	
UPC-E0-5-bit additional code enabled	07043000	
UPC-E0-5 bit additional code disable	07043100	
Allow UPC-E0 check bit to be sent	07044000	
Prohibit sending of UPC-E0 check bit	07044100	
Allow to read UPC-E1	07050000	
Disable reading of UPC-E1	07050100	
UPC-E1 forced output additional code	07051000	
UPC-E1 does not require additional codes to be output	07051100	
UPC-E1-2 bit additional code enable	07052000	
UPC-E1-2 bit additional code disable	07052100	
UPC-E1-5 bit additional code enable	07053000	
UPC-E1-5 additional code disable	07053100	
Allow UPC-E1 check bit to be sent	07054000	
Prohibit sending UPC-E1 check bit	07054100	
Allow to read Code 128	07060000	
Prohibit reading Code 128	07060100	
The minimum length of Code 128 information is 0	07061000	For other lengths, the last two digits of the parameter can be modified.
The minimum length of Code 128 information is 4	07061004	
The maximum length of Code 128 information is 32.	07061120	
Code 128 The maximum length of information is 255	070611FF	

Code 128 plus prefix (11)-On	07062000	
Code 128 plus prefix (11)-Off	07062100	
Allow to read Code 39	07070000	
Prohibit reading Code 39	07070100	
The minimum length of Code39 information is 0	07071000	For other lengths, the last two digits of the parameter can be modified.
Code39 messages have a minimum length of 4	07071004	
The maximum length of Code39 information is 32.	07071120	
The maximum length of Code39 information is 255.	070711FF	
Code39 Starter Output	07072000	
Code39 start character is not output	07072100	
Code39 Terminator Output	07073000	
Code39 terminator is not output	07073100	
Allow to read Code32	07074000	
Code32 reading is prohibited	07074100	
Code32 Prefix A Output	07076000	
Code32 Prefix A is not output	07076100	
FullASCII support	07075000	
FullASCII is not supported	07075100	
Code39 handles the check symbol	07077000	
Code39 does not handle checksum	07077100	
Code39 output check symbol	07078000	
Code39 does not output a check symbol	07078100	
Allow to read Code93	07080000	
Code93 is forbidden to be read	07080100	
The minimum length of Code93 information is 0	07081000	For other lengths, the last two digits of the parameter can be modified.
The minimum length of Code93 information is 4	07081004	
The maximum length of Code93 information is 32.	07081120	

The maximum length of Code93 information is 255.	070811FF	
Allow to read CodaBar	07090000	
Do not read CodaBar	07090100	
The minimum length of CodaBar information is 0	07091000	For other lengths, the last two digits of the parameter can be modified.
The minimum length of CodaBar message is 4	07091004	
The maximum length of CodaBar information is 32	07091120	
The maximum length of CodaBar information is 255.	070911FF	
CodaBar start-stop character sending permission	07092000	
CodaBar start-stop character sending forbidden	07092100	
CodeBar does not handle validation	07093000	
CodeBar MOD 10 Check Only	07093100	
CodeBar MOD 16 check only	07093200	
CodeBar Double Check	07093300	
CodeBar outputs the checksum	07094000	
CodeBar does not output a check character	07094100	
Allow to read Inter leaved 2 of 5	070A0000	
Interleaved 2 of 5 is disabled	070A0100	
Interleaved 2 of 5 messages have a minimum length of 0	070A1000	For other lengths, the last two digits of the parameter can be modified.
Interleaved 2 of 5 messages have a minimum length of 4	070A1004	
Maximum length of Interleaved 2 of 5 message is 32	070A1120	
The maximum length of Interleaved2of5 message is 255	070A11FF	
Interleaved 2 of 5 verification format is Mod10	070A2000	

Interleaved 2 of 5 checksum format is None	070A2100	
Interleaved 2 of 5 Output Verifier	070A3000	
Interleaved 2 of 5 does not output a checkmark	070A3100	
Allow to read Industrial 25	070B0000	
Prohibit reading Industrial 25	070B0100	
Industrial 25 message has a minimum length of 0	070B1000	For other lengths, the last two digits of the parameter can be modified.
Industrial 25 messages have a minimum length of 4	070B1004	
Industrial 25 The maximum length of the message is 32	070B1120	
Industrial 25 The maximum length of the message is 255	070B11FF	
Industrial 25 verification format is Mod10	070B2000	
Industrial 25 check format is None	070B2100	
Industrial 25 Output Checker	070B3000	
Industrial 25 does not output a check symbol	070B3100	
Allow reading of Matrix 2 of 5	070C0000	
Disable reading of Matrix 2 of 5	070C0100	
Matrix 2 of 5 messages have a minimum length of 0	070C1000	For other lengths, the last two digits of the parameter can be modified.
Matrix 2 of 5 messages have a minimum length of 4	070C1004	
Matrix 2 of 5 messages have a maximum length of 32	070C1120	
The maximum length of Matrix 2 of 5 information is 255	070C11FF	
Matrix 2 of 5 calibration format is Mod10	070C2000	
Matrix 2 of 5 checksum format is None	070C2100	
Matrix 2 of 5 Output Verifier	070C3000	

Matrix 2 of 5 does not output a checkmark	070C3100	
Allow to read Code 11	070D0000	
Prohibit reading Code 11	070D0100	
The minimum length of Code11 information is 0	070D1000	For other lengths, the last two digits of the parameter can be modified.
The minimum length of Code11 information is 4	070D1004	
The maximum length of Code11 information is 32.	070D1120	
The maximum length of Code11 information is 255.	070D11FF	
Code 11-1bit check	070D2000	
Code 11-2bit check	070D2100	
Code11 outputs the check symbol	070D3000	
Code11 does not output a check symbol	070D3100	
Allow to read MSI Plessey	070E0000	
Disable Read MSI Plessey	070E0100	
Minimum length of MSI Plessey message is 0	070E1000	For other lengths, the last two digits of the parameter can be modified.
Minimum length of MSI Plessey message is 4	070E1004	
Maximum length of MSI Plessey message is 32	070E1120	
Maximum length of MSI Plessey message is 255	070E11FF	
MSI Plessey verification format is single Mod10	070E2000	
The MSI Plessey verification format is Dual Mod10	070E2100	
MSI Plessey Output Checker	070E3000	
MSI Plessey does not output a check symbol	070E3100	
Allow to read RSS-14	070F0000	
Disable reading of RSS-14	070F0100	
RSS-14 check digit output	070F4000	
RSS-14 check digit is not output	070F4100	
RSS-14 AI output without parentheses	070F5000	

RSS-14 AI Bracketed Output	070F5100	
Allow reading of qualified RSS	070F1000	
Disable reading of qualified RSS	070F1100	
Qualified RSS check bit output	070F6000	
The qualified RSS check bit is not output	070F6100	
Qualified RSS AI output without parentheses	070F7000	
Qualified RSS AI Parenthesized Output	070F7100	
Allows reading of RSS Extensions	070F2000	
Disable reading of RSS Extensions	070F2100	
Extended RSS check bit output	070F8000	
The extended RSS check bit is not output	070F8100	
RSS AI Extended Output Without Parentheses	070F9000	
Extended RSS AI bracketed output	070F9100	
The minimum length of RSS message is 0	070F3000	For other lengths, the last two digits of the parameter can be modified.
The minimum length of an RSS message is 4	070F3004	
The maximum length of the RSS message is 32	070F3120	
The maximum length of the RSS message is 255	070F31FF	
Allows reading of Standard 2 of 5	07200000	
Disable Reading Standard 2 of 5	07200100	
Standard 2 of 5 messages have a minimum length of 0	07201100	For other lengths, the last two digits of the parameter can be modified.
Standard 2 of 5 messages have a minimum length of 4	07201104	
The maximum length of Standard 2 of 5 information is 32	07201120	
Maximum length of Standard 2 of 5 message is 255	072011FF	
Standard 2 of 5 Verification-On	07202000	
Standard 2 of 5 Calibration-Off	07202100	

Standard 2 of 5 Output Verifier	07203000	
Standard 2 of 5 does not output a checkmark	07203100	
Permission to read Plessey	07210000	
Plessey is forbidden to read	07210100	
The minimum length of a Plessey message is 0	07211100	For other lengths, the last two digits of the parameter can be modified.
Plessey messages have a minimum length of 4	07211104	
The maximum length of a Plessey message is 32	07211120	
The maximum length of a Plessey message is 255	072111FF	
Plessey Verification-On	07212000	
Plessey Verification-Off	07212100	
Plessey output check symbol	07213000	
Plessey does not output check symbol	07213100	
Allow to read ChinaPost 25	07220000	
Prohibit reading ChinaPost 25	07220100	
The minimum length of ChinaPost 25 message is 0	07221100	For other lengths, the last two digits of the parameter can be modified.
The minimum length of ChinaPost 25 message is 4	07221104	
The maximum length of ChinaPost 25 message is 32	07221120	
The maximum length of ChinaPost 25 message is 255	072211FF	
ChinaPost 25 Verification-On	07222000	
ChinaPost 25 Verification-Off	07222100	
ChinaPost 25 Output Validator	07223000	
ChinaPost 25 does not output a checkmark	07223100	
Allow to read Code 16K	07230000	
Prohibit reading Code 16K	07230100	
The minimum length of Code16K information is 0	07231100	For other lengths, the last two digits of the parameter can be modified.
The minimum length of Code16K information is 4	07231104	

The maximum length of Code16K information is 32.	07231120	
The maximum length of Code16K information is 255.	072311FF	
Allow to read Code 49	07240000	
Prohibit reading Code 49	07240100	
The minimum length of Code49 information is 0	07241100	For other lengths, the last two digits of the parameter can be modified.
Code49 messages have a minimum length of 4	07241104	
The maximum length of Code49 information is 32.	07241120	
The maximum length of Code49 information is 255.	072411FF	
Allow to read QR	07140000	
QR reading is prohibited	07140100	
QR Mode 1-On	07141000	
QR Mode 1-Off	07141100	
QR plus prefix (11)-ON	07142000	
QR plus prefix (11)-off	07142100	
Allow to read DM	07150000	
Prohibit reading DM	07150100	
Allow multiple DMs to be read simultaneously	07151000	
Do not read multiple DM barcodes at the same times	07151100	
Allow to read PDF 417	07160000	
Forbidden PDF 417	07160100	
Allow to read Chinese-sensible code	07170000	
Forbidden to read Chinese character code	07170100	
Allow to read Micro PDF 417	07180000	
Disable Micro PDF 417	07180100	

Allow to read Micro QR	07190000	
Prohibit reading Micro QR	07190100	
Allow to read Maxi Code	071A0000	
Disable reading of Maxi Code	071A0100	
Allow to read Aztec	071B0000	
Prohibit reading Aztec	071B0100	
Allow reading of GS1 Composite	071C0000	
Disable reading GS1 Composite	071C0100	
Preservation	08000000	
Cancel the previous one-bit data	08000001	
Cancel a previously read string of data	08000002	
Cancels modifying the settings	08000003	
0	08010000	
1	08010001	
2	08010002	
3	08010003	
4	08010004	
5	08010005	
6	08010006	
7	08010007	
8	08010008	
9	08010009	
A	0801000A	
B	0801000B	
C	0801000C	
D	0801000D	
E	0801000E	
F	0801000F	

Appendix H: List of AIM IDs

Barcode type	AIMID	Possible AIM ID qualifying parameters (m)
Code128	]C	0、1
EAN8	]E4	
EAN8 with Addon	]E3	
EAN13	]E0	
EAN13 with Addon	]E3	
UPCA	]E0	
UPCA with Addon	]E3	
UPCE	]E0	
UPCE with Addon	]E3	
Code39	]A	0、1、3、4、5、7
Code93	]G0	
Codabar	]F	0、2、4
Code11	]H	0、1、3
RSS	]e0	
Qualified RSS	]e0	
Extended RSS	]e0	
Industrial2of5	]S0	
Interleaved2of5	]I	0、1、3
Matrix2of5	]X0	
MSI Plessey	]M	0、1
QR Code	]Q	0、1、2、3
PDF417	]L0	
DataMatrix	]d	0、1、2、4、5
China Post 25	]X0	
Code16K	]K0	

Plessey	]P0	
Standard2of5	]R0	
Aztec	]z	0、1
Chinese-sensible code	]X0	
Maxicode	]U	0、1
MicroQR	]Q1	
MicroPDF417	]L0	