WNI-S530 2D wired scanner

User manual

Catalog
Important tip
Catalogue

1   Product profile

1.1 Manual instruction

This instruction manual mainly provides various function setting instructions for the product. By scanning the setting function barcode in this description, the communication interface parameters, reading working mode, prompt mode, data processing and output, reading code system and barcode parameters can be changed.

The appendix lists the default parameter configuration of the product at the factory. In most cases, users can meet most common needs without configuration.

1.2 Scope of application

Suitable for product feature settings.

1.3 Use the Setup Code

Reading the "open setting code" barcode can open the reading module, and configure the function by reading a specific barcode (setting code function). After the function is turned on, the reading module can be parameter modified by reading one or more setting codes.

After reading the "turn off setting code", the reading module will deactivate most of the setting code processing function. In this state, only the specific setting code of "open setting code" can be read and processed.

*Open the setting code   Close the setting code

The setup code content can be allowed to be output. After reading "Output setting code content" and setting it successfully, when reading the setting code, the content will be output to the host; after reading "No output setting code content" and setting it successfully, the reading module will no longer output the setting code content. After the reading module is restarted, no matter what the previous setting, will be restored to the "no output setting code content" state.

Output the setup code content   *No outputsetting code content

1.4 Restore factory default

Note: Carefully use the restore factory default function. After reading this setting code, you will lose the current parameter setting and replace the factory default value. Factory default parameters and functions

are available in the appendix.

Restore factory setting

1.5 User default setting

In addition to factory default setting, users can save frequently used setting as user default setting.

Read the Save current setting as user default code saves all parameters of the reading module that are currently configured as the user default setting. If the user default configuration information already exists on the read module, the current configuration information will replace the original user default configuration information. Reading Restore to User Default causes the module to switch to the state of the user default setting.

Note: After the factory default settings are restored, the previously saved user default settings are not lost.

Save the current settings as the user default setting

Return to the user default setting

2　Communication interface

The reading module provides TTL serial communication interface and USB interface (optional function) to communicate with the host. Through the communication interface, it can receive the read data, control the reading module for issuing instruction, and change the function parameters of the reading module.

In particular, the reading module automatically recognizes the communication interface. If the serial communication interface is connected, the device automatically selects the interface without switching the communication interface. If the USB communication interface is connected, the device is enumerated according to the configuration, possibly by a keyboard, virtual serial port, or HIDPOS interface.

2.1　Serial communication interface

Serial communication interface is a common way to connect reading module and host equipment. When using the serial communication interface, the reading module and the host equipment must fully match the communication parameters configuration to ensure smooth communication and correct content.

The serial communication interface provided by the reading module is based on the TTL level signal, and it is externally added when the RS-232 form must be used.

Switch to serial port

The default serial communication parameters of the reading module are listed below. If it is inconsistent with the host equipment, it can be repaired through the reading setting code change.

Parameter	Default
Serial communication type	StandardTTL-232
Baud Rate	9600
Parity Type	None
Data Bits	8
Stop Bits	1
Hardware Flow Control	None

2.1.1 Baud Rate

The Baud rate is measured in bps: bits per second, with the optional configuration parameters listed in the table below.

1200

2400

4800

*9600

14400

19200

38400

57600

115200

2.1.2 Check

There are three optional check modes, which are no check, odd check and parity check.

*No check

Odd check

parity check

2.2 USB HID-KBW

When using the USB communication interface, the reading module can be simulated into a HID-KBW device. In this mode, the reading module will become a virtual keyboard to output data to the host.

* Switch to the HID-KBW interface

2.2.1 Interkey delay setting

The time interval of the continuous key operation of the virtual keyboard is the last key release to the next key press. The delay was set from 0 to 75 ms, and the default delay is 2ms. The setting method refers to Appendix D.

*Default delay

Not delay

Short time delay

Long time delay

Custom interkey delay

2.2.2 Poll speed

The keyboard polling speed can be set to 1 to 10 ms through the following setting code. The smaller the value set, the reading module can send characters to the host. If the primary opportunity loses characters , increase the polling speed setting value.

*Poll speed 1 ms

Poll speed2ms

Poll speed 3ms

Poll speed4ms

Poll speed 5ms

Poll speed 6ms

Poll speed 7ms

Poll speed8ms

Poll speed9ms

Poll speed10ms

2.2.3 Multi-country keyboard

The US keyboard layout is used by default. If you choose the other country keyboard layout, the output coding mode should be set to the original data transfer go out.

*America keyboard

French keyboard

Italian keyboard

German keyboard

Spanish keyboard

Turkish Q keyboard

British keyboard

Belgium

Portuguese-Portugal

Portuguese-Brazil

Hungary

Turkey F

Greece

Sweden

Finland

Denmark

Chech

Austria (Germany)

Italy (142)

Russian

RussianTypewriter

Arabic

Irish

Polish214

PolishProgramm

Dutch

Japan

Thailand

Croatia

Romania

Bulgaria

Slovakia

North Korea

Ukrainian

Swiss French

Hebrew

Vietnamese

2.2.4 The Alt combination outputs ASCII characters

To enable the device to enter any ASCII character (hexadecimal between 0x00 and 0xFF) in any language format, the virtual keyboard can be set to the Alt combination output ASCII character mode. When exporting characters in this combination, it slows down because you output more data.

Use this feature to select any of the following modes based on actual application:

Mode 1: Encoding that is not supported for the current read-engine keyboard layout, and the ASCII characters between 0x 20-0xFF Mode 1: Encoding that is not supported for the current read-engine keyboard layout, and the ASCII characters between 0x20-0xFF.Output by using the Alt combination mode.

Mode 2: Use Alt combination for ASCII characters between 0x20 and 0xFF.

Mode 3: Use Alt combination for ASCII characters between 0x00 and 0xFF.

Note: If both Mode 3 and the control character escape feature are enabled, the control characters (0x00~0x1F) will output the Ctrl combination key.

| *No use Alt combination mode | Mode 1 |

| Mode 2 | Mode 3 |

2.2.5 Control character output

Hexadecimal ASCII control characters with decimal values between 0x 00 and 0x1F can be set to escape the output combination control keys and can be used in applications where control key combinations are required. The correspondence between ASCII value and function key or control combination key is shown in Appendix E: Control character table.

If you need to mask the output of other control characters, you can also choose to set the output Enter, DownArrow, mask the other control characters, and only respond to the output 0x07,0x0D output Enter, and 0x0A output DownArrow.

| *Not use the escape mode | Use the escape mode |

Output Enter, DownArrow

In particular, the control character 0x0A can be set to different representations Enter and DownArrow and can be set as required.

| *0x0A shows DownArrow | 0x0A showsEnter |

2.2.6 Case conversion control

You can transfer the A~Z letter case with the following setup code configuration.

*Normal output

Case reversal

All Caps

All lowercase

2.2.7 Character string end tag processing

If the setting allows the character string to use "\ 0" as the end tag, then the resolved code value encountered with "\ 0" does not output subsequent characters.

Forbid the character string is marked with, \ 0, as the end tag

*Allow the character string is marked with, \0 as the end tag

2.2.8 GS character replacement

Since the GS character cannot be printed directly, you can set it to the following substitution mode to replace the GS characters with other characters displayed.

Note 1: This function conflicts with the GS1 AI function setting. The GS1 AI output rules should be prohibited before use.

Note 2: Replacement to C function should be used with the original data output setup code and the Alt combination output mode 1 setup code.

*Not replace

Replace with C

Replace with |

Replace with^]

Replace with]

Replace with<GS>

2.2.9 CRLF setting

According to different scenarios and different code values, the results of the return line change cannot meet the expected results, so the setting of CR and LF changes can be modified through the following configuration.

*Not replaceCRLF

CRLF replace with CR

LF alone is replaced with CR

CRLF and LF are replaced with CR

2.3 USB Virtual serial port

When the reading module uses the USB communication interface, but the host application receives the data through the serial port communication mode, then the reading module can be set as the USB virtual serial port communication mode. This feature requires the appropriate driver to be installed on the host machine. The interface is recommended for the new application software for use. Based on the HID interface, no installation driver is required.

Switch to USB virtual serial port

2.4 USB HID-POS

USB HID-POS interface is recommended for new application software use. Based on the HID interface, no installation driver is required.

Switch to HID-POS interface

Protocol format：
- vid：0x26f1
- pid：0x8803

Host send to the data format：

Byte	Content
0	Message ID（0x04）
1	Valid data length

Byte	Content
2-61	Data
62	0x00，1 Byte reservation
63	0x00(There is no data later) 0x01(Then there is the data)

Scanning device is sent to the host data format

Byte	Content
0	Message ID（0x02）
1	Valid data length
2-57	Data
58-62	0x00，5 Bytes reserved
63	0x00(There is no data later) 0x01(There is the data)

3   Reading mode

3.1 Batch mode

In batch mode, when the trigger control interface of the reading module becomes the trigger normal, the reading module starts shooting and reading; If the control interface is always at the trigger level (low level), the module will continue to read the code, and the same barcode can only be read once. When successful, the reading module will be output through the communication interface. Starting a new batch reading, the host needs to undo the trigger level before issuing the trigger level.

Switch to the batch mode

3.2 Trigger mode

In the trigger mode, when the trigger control interface of the reading module becomes the trigger normal, the reading module starts to shoot and read; within the limited time range of "single reading code duration", the trigger level will continue until success. When the level undo is triggered, or the reading exceeds the single read length limit, the shot reading is aborted. When successful, the reading module will be output through the communication interface. Start a new trigger reading, the host needs to first undo the trigger level, and then issue the trigger level.

*Switch to the trigger mode

3.2.1 Level condition or pulse condition

In the trigger mode, you can either use a level maintenance condition or a pulse trigger condition. Level maintenance condition is the level of the trigger signal from the beginning of the reading to the end of the reading. Pulse trigger condition refers to the level pulse where the trigger signal is detected, that is, starting reading, and ending reading when the reading is successful or the single read code length limit condition is reached.

*Level condition   Pulse condition

3.2.2 Single read code time limit

Single reading code length limit: it allows the longest shooting and reading time in the trigger mode. Beyond the length limit, you will stop shooting the reading action. The single-read code length was set to range from 1000 to 3600000 m s, with a default length of 3000ms. Custom modified single read code length limit setting refer to Appendix D.

*Single read code length 3000ms   Single read code length5000ms

Customize the modified single-read code length limit

3.2.3 Automatic dormancy in free time

In trigger mode, allows the selection of automatic dormancy at idle."Idle" means that the state of no keys and no communication remains for a certain period of time. Automatic dormancy, is to make the device into a low power consumption state, when there is a trigger signal or the upper computer communication, will automatically return from the dormant state to the working state.

Note: This feature works only in serial port mode.

*Prohibit automatic dormancy   Allow automatic dormancy

3.2.4 Free time condition

The idle time sets from 0 to 65535 ms, and the default time is 500ms. Idle time is set according to Appendix D.

*500ms   1000ms

Customize set the idle time duration

3.2.5 Same read code delay

In order to avoid multiple continuous reading of the same barcode in the trigger mode, the reading module can be required to read the same barcode only after the delay time setting in this mode.

The same reading code delay refers to reading a barcode after reading the same barcode within the set time. Only after the time, can read and output.

Set to "the same reading code without delay", the output to read the same barcode.

Set to "require the same reading code delay" and set to "No reading timeout reset", the same barcode must exceed the delay time limit before reading the output.

Set to "require the same reading code delay" and set "enable timeout reset", the reading output must be recognized after the delay time limit does not read the same barcode.

*Same barcode is not delay

The same read code delay is required

*No replay timeout reset

Enable to replay timeout reset

Read the following setup code, you can quickly modify the limit value of the same read code delay length. The same read code delay sets rang from 0 to 65535 ms, with a default time of 1500 ms. If the same barcode delay is set to "infinite time", then the same barcode is not output. Customize the same read code delay time length, and set it according to Appendix D.

Modify the same read code delay in infinite

Modify the same read code delay by 1000ms

*Modify the same read code delay by1500ms

Modify the same read code delay by3000ms

Modify the same read code delay by5000ms

Customize modifying the same read code delay length

3.3 Induction mode

In the automatic induction mode, the reading module will monitor the image taken. When the scene changes, it will be read within the limited time of "single reading code length". After the successful reading output information or timeout, the state of monitoring the scene change will be entered again.

When the reading module works in this mode, it can also respond to the trigger level and enter the reading state. After the trigger level is undone, the reading is successful, or the timeout. The trigger level needs to be removed before reentering the monitoring state.

Switch to the induction mode

3.3.1 Single read time limit

Single reading time limit: the longest time allowed to take the reading attempt after monitoring the scene changes and entering the reading state. When the time is exceeded, the read state is returned to the monitoring state. The single read code duration was set to range from 1000 to 3600000 ms, with a default duration of 3000ms. Custom modified single read code length limit setting according to Appendix D.

*Modify the single read length of 3000ms

Modify the single read length of 5000ms

Customize modified the single read code length limit

3.3.2 Same reading code delay

In order to avoid multiple continuous reading of the same barcode in the automatic induction mode, the reading module can be required to set the same barcode for a time delay in this mode.

The same reading code delay refers to reading a barcode after reading the same barcode within the set time. Only after the time, can read and output.

Set to "the same reading code without delay", the output to read the same barcode.

Set to "require the same reading code delay" and set to "No reading timeout reset", the same barcode must exceed the delay time limit before reading the output.

Set to "require the same reading code delay" and set "enable timeout reset", the reading output must be recognized after the delay time limit does not read the same barcode.

*Same reading code without delay

Require same reading code delay

*No replay timeout reset

Enable to replay the timeout reset

Read the following setup code, you can quickly modify the limit value of the same read code delay length. The same reading code delay sets rang from 0 to 65535 ms, with a default duration of 1500ms. If the same barcode delay is set to "infinite time", then the same barcode is not output. Customize the same read code delay time length, and set it according to Appendix D.

Modify the same reading code delay is infinite

Modify the same reading code delay by 1000ms

*1500ms Modify the same reading code delay by 1500ms

Modify the same reading code delay of 3000ms

Modify the same reading code delay by5000ms

Custom modify the same reading delay length

3.3.3 Image stabilization time setting

The setting range of image stabilization time is 0~1600ms,with the default length of 60ms。The setting mode of image stabilization time according to Appendix D.

*Image stabilization60ms

Image stabilization500ms

Image stabilization is 1000ms

Modify image stabilization

3.3.4 Sensitivity Setting

Sensitivity: it is used to adjust the operation of the reading module in the automatic induction mode, to monitor the degree of change of the scene, and to determine the degree of change of the reading state. The higher the sensitivity, the smaller the scene change, and the lower the sensitivity, the greater the scene change.

Ordinary sensitivity

low sensitivity

* High sensitivity

Ultra-sensitivity

It is recommended that the following free setting modes is not used when the above sensitivity is set directly up to suit the application.

The scene change threshold limit is freely set up. When the degree of scene change reaches or exceeds the threshold limit, it is monitored and determined that the scene has sufficient change to turn to the reading state. Higher sensitivity corresponds to a lower scene-change threshold.

When the scene change threshold is set very high, the sensitivity of the reading module is very low. For specific applications, please test first to determine the optimal threshold.

The setting range of scene change threshold is 1~50. When the scene change threshold is set, the data code needs to be combined. The default threshold is 10. Setting mode according to Appendix D.

Modify the scene change threshold value

3.3.5 Stop mode

Mode 1: In induction mode, turn off the light immediately after scanning the code successfully ,and Re-monitor the environment
Mode 2: In the induction mode, after the successful scanning code, you can continue to scan the code until a long time range, and you will not enter the monitoring environment stage again.

*Pattern 1

Pattern2

3.4 Continuous mode

Continuous mode is the working mode of the reading module to shoot, read and output information in a continuous cycle. In this mode,Whether it is the same barcode or not, the reading module identifies its output.

In continuous mode, use the trigger level control to suspend continuous reading or continue continuous reading. In continuous reading, the trigger level reundoes, will pause the reading; in the pause reading state, the trigger level reundo, continue reading. This configuration may not take effect when continuously reading the status.

Switch to continuous mode

3.4.1 Single reading time limit

In the continuous mode, it refers to the maximum time of continuous acquisition and recognition before the successful reading. After the timeout, the interval of no acquisition and reading will be entered according to the set period. The setting range of single read code length is 1000~ 36000000ms, with a default length of 3000 ms. Setting mode according to Appendix D.

*Modify the single reading code length 3000ms

Modify the single reading code length is5000ms

Customize modify single reading code length limit

3.4.2 Reading interval time setting

The length of the reading interval refers to the interval time between the two readings. Whether the reading is successful or fail, there will be a set time interval between the two readings, in which no reading will be collected. The setting range of reading interval duration is 0~65535ms, with a default time of 1000ms. Custom setting mode according to Appendix D.

*Modify the reading interval tmie is500ms

Modify the reading interval tmie is1000ms

Modify the reading interval tmie is 2000ms

Modify the reading interval tmie is5000ms

Modify the reading interval tmie is0ms

Custom Modify the reading interval tmie is

3.4.3 Same reading code delay

In order to avoid the same barcode being read multiple times in continuous mode, the reading module can be required to read the same barcode only after the delay time is set in this mode.

The same reading code delay refers to reading a barcode after reading the same barcode within the set time. Only after the time, can read and output.

Set to "the same reading code without delay", the output to read the same barcode.

Set to "Same reading code delay required" and set "No replay timeout reset", the same barcode must exceed the delay time limit before reading the output.

Set to "required same read code delay"and set "Enable to replay the timeout reset", Only can read the output after must over delay time limit with no reading for the same barcode.

*Same read code without delay

Required the same read code delay

*No replay timeout reset

Enable to replay the timeout reset

Read the following setup code, you can quickly modify the limit value of the same read code delay time. The same read code delay sets rang from 0 to 65535 ms, with a default time of 1500ms. If the same barcode delay is set to "infinite time", then the same barcode is not output. Customize the same read code delay time length and setting mode refer to Appendix D.

Modify the same reading code delay is infinite

Modify the same reading code delay by1000ms

*Modify the same reading code delay by1500ms

Modify the same reading code delay by3000ms

Modify the same reading code delay by5000ms

Custom modify the same reading code delay time

3.5 Command mode

To better adapt to the embedded devices, the modules can be configured in a command mode. After sending the open scanning command, it is in the decoding stage until the decoding is successful or the stop scanning command is received. Under the serial port interface, it can be configured to enter a low-power state in this mode.

Command mode

3.5.1 Single reading time

The single reading time is the time of continuous scanning after opening and scanning the code. If the reading is successful, exceeds the single reading time, or receives the end reading instruction, the reading will be finished.

If the single reading time is set to 0 that it refers to no limit. It means that the reading will not end automatically and it needs to send the end reading command .

Single reading time should be modified with data code setting. Specific operation can refer to Appendix D in the original manual.Single reading code length limit modification method.

*No limit time

A single reading time is 3s

A single reading time is 5s

A single reading time is 10s

Customize the single reading time

4   Lighting and aiming

4.1 lighting

On the reading module, there is a set of LED specially equipped with auxiliary lighting for shooting and reading, and the beam will shine on the reading target, improving the reading performance and the adaptability to the weak ambient light. LED lighting group in the shooting reading performance form, the user can adjust according to the application environment and other factors.

Ordinary: the lighting group is up during shooting, the others time off.

Often bright: the lighting group continues to shine after the reading module is turned on.

No lighting: under any case.

*Ordinary

No lighting   Often bright

4.2 aiming

The reading module has a projection device, used to project special graphics during the shooting of the reading module, which represents the center of the scene image taken by the reading module. When using the reading module to shoot and read, this figure is projected on the reading target. The reading module is "targeting" the reading target, which can more easily read the desired target.stand

Ordinary: The aiming device will light up and project the figure during the shooting and reading process, and the others time off.

Often bright：The aiming device is always working, constantly projecting the graphics.

No aiming: the aiming device is always out, no projection.

*Ordinary

No aiming   Often bright

5　Prompt output

5.1　All prompt sound control

Reading module in various scenarios, there are boot prompt sound, reading successful prompt sound and setup code prompt sound. This setup code can control prompt sounds.

Silence

*No silence

5.2　Boot prompt sound

When the reading module is successfully started, it can output the boot prompt sound according to the setting requirement.

*Output the boot prompt sound

Not output the boot prompt sound

5.3　Read the successful prompt sound

After successful reading, the reading module can output the PWM signal to drive the external buzzer circuit to make a sound. The sound signal may be turned off or allowed for output by setting, and the type and volume of the sound may also be modified. The following setup code can set the setting accordingly.

*Output the successful reading prompt sound

Not output the successful reading prompt sound

5.3.1　Prompt sound type

Type 1

Type 2

*Type 3

5.3.2 Prompt sound volume

* High volume

Medium volume

Low volume

5.4 Setup code to read the prompt sound

=At configure the reading module, you can turn on or off the setup code prompt sound as required.

*Turn on the setup code prompt sound

Turn off the setup code prompt sound

5.5 Read successfully LED prompt

*Turn on

Turn off

Read the following setup codes to modify the LED prompt time, with a default time of 200ms.Customized LED prompt time, setting mode refers to Appendix D.

Modify the LED prompt time of 100ms   *Modify the LED prompt time of 200ms

Modify the LED prompt time of 500ms   Customized LED prompt time

5.6 Decode the indicator lamp work pattern

By configure, you can customized the decoding indicator of work mode.
Work mode 0: on the power out, decoding successfully is bright and after the specified time out.
Work mode 1: on the power bright when decoding is successful, out after the specified time
Work mode 2 :Decode the indicator light is used as fill light.

*Work mode 0   Work mode 1

Work mode 2

5.7 Not Good Read（NGR）information

"Not Good Read information" refers to the reading module in some work mode, when the reading code is not successful, the reading module output by the user freely defined special information, the user or program can adjust the subsequent operation according to the detection of this string of information.

Allow to output the NGR information   *Not output NGR information

Modify the NGR information

Read the following setup code to begin changing the NGR information. This setting code needs to be combined with the data code. If the "save" of the data code is read directly, the length of the NGR information will be "zero". In this case, even if the NGR information is required to be sent, there will be no substantial information content output, which may disturb the performance in use. Please set it carefully.

The allowed to set the NGR information length is from 0 to 7 characters, and the character value domain ranges from 0 to 255.

Modify the NGR information

6 Data edition

Read data needs to be distinguished in many applications.

The distinction of data usually uses Code ID as identification, and in some special cases uses prefix and terminator as discrimination.

Data editing mainly includes the following operations:

➢ Add it before decoding data :start symbol,Code ID, prefix.

➢ Add it after decoding data:suffix

Add it all of the above operations when completed：terminator

After configured, the information content that the device can output can be in one of two formats:

[Start] + [Code ID] + [Prefix] + [DATA] + [Suffix] + [Terminator]

[Start] + [Prefix] + [Code ID] + [DATA] + [Suffix] + [Terminator]

All fields are optional output except for DATA where barcode information must be output. Prefix is the prefix;Suffix is the suffix; Terminator is the terminator.

6.1 Comprehensive setting

For all "Add"to operations

The "Add" operation means: start symbol, Code ID addition, custom prefix information addition, custom suffix information addition, terminator addition. The following "Allow All Information Add" and "Prohibit All Information Add" work simultaneously on the above functions.

➢ "Allow All Information Add" : will allow to add start symbol, code ID, prefix, suffix, terminator, etc. in the data output content.

➢ "Prohibit All Information Add"： will not add start symbol, code ID, prefix, suffix, terminator, etc. in the data output content.

Allow all Information add	Prohibit all Information add

6.2 Add the length of the information output

This configuration is suitable for non-keyboard interfaces to add two bytes including all other information before the device output data.

*No output the decoding length information

Output the decoding length information

6.3 Start symbol

*No use the start symbol

The start symbol is set to STX

6.4 Order selection of the prefix amd the Code ID

When both the Code ID and Prefix fields are configured to require the output, the order of the two fields can be selected by the following two setting codes, and the content order of the other fields is then output.

Code ID+prefix

*Prefix+Code ID

6.5 Prefix

6.5.1 Add prefix

The prefix is a string that is added before decoding information and can be modified by the user.

Allow to add the prefix

*No add the prefix

6.5.2 Modify the prefix

Read the "Modify Prefix Content" setting code and combine the read data code to modify the prefix content. Using two hexadecimal values for each prefix character, the prefix allows up to 16 characters. Refer to Appendix C for the hexadecimal conversion table of character values.

Modify the prefix content

Example: Set the custom prefix to 'CODE':
1. Check the character table and get the hexadecimal value of 4 characters of "CODE" is: 43,4F, 44,45;
2. Read "Open the setting code " (negligible if on);
3. Read the "Modify Prefix Content" setting code;
4. Read the following data codes:"4""3""4""F""4""4""4""5";
5. Read the "Save" setting code;

6.5.3 Modify the prefix according to the code system type

Modify the prefix according to the code system type

Example: Set the QR code system custom prefix to "CODE":
1. The hexadecimal value of the appendix F code system index table QR is 1A
2. Check the character table and get the hexadecimal value of 4 characters of "CODE" is: 43,4F, 44,45;
3. Read the "Open the setting code " (negligible if on);
4. Read the "Modify the prefix according to the code system type" setting code;
5. Read the following data codes:"1""A""4""3""4""F""4""4""4""5";
6. Read the "Save" setting code;

Meanwhile, you can directly configure the prefix by code system type according to the setting code rule of S_CMD_051P [X] [Y].

[X] is the code system index value in Appendix 1, and [Y] is the set prefix, and it is the hexadececimal data.example:

S_CMD_051P1A434F4445。

6.5.4 6.5.4Clear all of the prefix settings information

Clear all of the prefix settings information

6.6 Code ID

6.6.1 Add the Code ID

Users can use Code ID to identify different barcode types, and the Code ID corresponding to each barcode type can be freely modified. All barcodes have a Code ID of 1 character, and must be a letter, and cannot be set to numbers, not visible characters, or punctuation marks, etc.

Allow to add the Code ID

*Not add the Code ID

Read the following set up code to restore Code ID for all barcode types to default, use with caution.

All barcode Code ID restore the default values

6.6.2 Modify the Code ID

The Code ID of each barcode type can modify independently and should be used by reading the corresponding setting code and combined with the data code.

Modify the PDF417 Code ID to the letter 'p' example:

1. Checking the table gives a hexadecimal value of 70 corresponding to "p"
2. Read "Open the setting code";
3. Read the "Modify PDF417 Code ID setup code";
4. Read the data code "7", "0";
5. Read the "save";
6. Read the "Close the setting code"。

Modify the Code ID setup code list for each barcode type:

Modify the PDF417 Code ID

Modify the Code128 Code ID

Modify the QR Code ID | Modify theDM Code ID

Modify the EAN8 Code ID | Modify the EAN13 Code ID

Modify theUPCE0 Code ID | Modify the UPCE1 Code ID

Modify theUPCA Code ID | Modify theIATA25 Code ID

Modify the Code 39 Code ID | Modify the Code 93 Code ID

Modify the Interleaved 2 of 5 Code ID | Modify the Codabar Code ID

Modify the Industrial 25 Code ID | Modify the Matrix 25 Code ID

Modify the Code 11 Code ID | Modify the MSI Plessey Code ID

Modify the Micro QR Code ID | Modify the Code32 Code ID

Modify the ISBN Code ID

Modify the ISSN Code ID

Modify the GS1 128 Code ID

Modify the AIM 128 Code ID

Modify the ISBT 128 Code ID

Modify the Micro PDF417 Code ID

Modify the Aztec Code ID

Modify the GS1 DataBar Code ID

Modify the GS1 DataBar Limited Code ID

Modify the GS1 DataBar Expanded Code ID

Modify the Plessey Code ID

Modify the Maxicode Code ID

Modify the Han xin Code ID

Modify the DotCode Code ID

Modify the Composite Code ID

6.7 Suffix

6.7.1 Add suffix

The suffix is a string that is added after decoding information and can be custom modified by the user.

Allow to add the suffix   *No add the suffix

6.7.2 Modify the suffix

Read the "Modify the suffix Content" setup code and combine the read data code to modify the suffix content. Use two hexadecimal values for each suffix character allowing up to 16 characters. Refer to Appendix C for the hexadecimal conversion table of character values.

Modify the suffix Content

Example: Set the custom suffix to 'CODE':
1. Check the character table, and get the hexadecimal value of 4 characters of "CODE" is: 43,4F, 44,45;
2. Read the " Open the setting code " (negligible if on);
3. Read the "Modify the suffix content" setup code;
4. Read the following data codes: "4", "3", "4", "F", "4", "4", "4", "5";
5. Read the "Save "setup code;

6.7.3 Modify the suffix according to the code system type

Modify the suffix according to the code system type

Example: Set the QR code system custom suffix to "CODE":
1. Check the hexadecimal value of the appendix F code system index table QR is 1A
2. Check the character table and get the hexadecimal value of 4 characters of "CODE" is: 43,4F, 44,45;
3. =Read the " Open the setup code " (negligible if on);
4. Read the "Modify the suffix according to the code system type" setup code;
5. Read the following data codes: "1""A""4""3""4""F""4""4""4""5";

6.　Read the "Save "setup code;

S_CMD_057S1A434F4445。At the same time, you can directly configure the modified suffix according to the code system type according to the setting code rule of "S_CMD_057S [X] [Y]".[X] is the code system index value in Appendix 1, and [Y] is the set prefix, and it is the hexadecimal data. example:S_CMD_057S1A434F4445。

6.7.4　Clear all of the suffix setting information

Clear all of the suffix setting information

6.8　Terminator

The terminator is used to mark the end of a piece of complete data information and to indicate the complete end of one data output. The terminator is 1-7 characters.

6.8.1　Add the terminator

Select Read the following set up code to enable the reading module to add terminator , or no more terminators.

*Add the terminator

Not add the terminator

6.8.2　Modify the terminator

Read the following setup codes to quickly set the terminator to either 0x0D, or 0x0D, and 0x0A.

*Set the adding terminator to 0x0D

Set the adding terminator to 0x0D 0x0A

Read the "Modify terminator" and combine the read data code to modify the character content of the terminator.
When modifying the terminator, two hexadecimal values are used for the characters, and 2 or 4 values are sequentially read to represent 1 character, or 2 characters. The hexadecimal conversion of the characters is

Modify the terminator

Modify the terminator to the letter 0x0D example:
1. Read the "open the setup code " (negligible if on);
2. Read the "modify terminator" setup code;
3. Read the data code "0", "D";
4. Read the "Save ";

6.8.3 Quick configure terminator

Close the terminator

*Add the CR

Add the CRLF

Add the LF

Add the TAB

Add the terminator ETX

6.9 Data segment editing

6.9.1 Data segment truncation

Decoding information Data consists of 3 parts: [Start] [Center] [End].
The user can select part of the information to be output by reading the following setup code.

*Transfer the entire Data

Only transfer the Start segments

Only transfer the End segment

Only transfer the Center segment

6.9.2 Data segment length modification

Modify the Start segment length

Modify the End the segment length

To read the corresponding setup code and use combined with the data code. Length modification rangefrom 0 to 255.

Modify the Start segment length to 0x02, example:

1. Use data code of"0", "2"to represent the hexadecimal 0x02;
2. Read the "open the setup code";
3. Read the "modify Start segment length" setup code;
4. Read the data code "0", "2";
5. Read the "Save";

6.9.3 Hide the data part

Decoding information Data consists of 3 parts: [Start] [Center] [End].
The user can select part of the information to be hidden by reading the following setup code.

*No hidden the Start segment data

Hide the Start segment data

*No hidden the Center segment data

Hide the Center segment data

*No hidden the End segment data

Hide the Endsegment data

6.9.4 Set the data segment intercept according to the code system type

The user can set hidden data segment and data segment lengths for specific code system types through the following configuration.

（1） Set the Start segment length

Modify the Start segment length by code system type

Modify the Start segment length of the QR to 0x02, example:

1. The code system type of QR, check the code system index table of Appendix F, which is indicated by the data code "1" and "A"
2. Use data code of"0", "2"to represent the hexadecimal 0x02;
3. Read the "modify the start segment length according to the code system type" setup code;
4. Read the data code "1"; "A"; "0"; "2";
5. Read the "Save";

Meanwhile, you can directly configure modifying the start segment length by code system type according to the setup code rule of "S_CMD_05CS [X] [Y]".[X] is the code-making index value in Appendix 1, [Y] is the set Start segment length, is the hexadecimal data, X and Y are 2 bytes. Example: S_CMD_05CS1A02.

（2） Set the Center segment length

Setting the Center segment length requires matching it with setting the Start segment length to either output or hide the Center length segment data starting from the Start length position. Note Set Center, segment length and set End segment length can only work on one, subject to the latest setting.

Modify the Center segment length by code system type

Meanwhile, the start segment length can be directly configured directly according to the code system type according to the setting code rule S_CMD_05CC [X] [Y].[X] is the code-making index value in Appendix 1, [Y] is the set Start segment length, is the hexadecimal data, X and Y are 2 bytes. Example: S_CMD_05CC1A02.

（3） Set the End the segment length

Modify the End segment length by code system type

At the same time, you can follow the "S_CMD_05CE [X] [Y]" setting code rule to directly configure according to the code system type modification.The start segment length.[X] is the code production index value in Appendix 1, [Y] is the set Start segment length, is the hexadecimal data,X and Y both accounted for 2 bytes. Example: S_CMD_05CE1A02.

6.9.5 Clear all data segment length information

Clear the length information for all of the data segment settings

6.10 Coded format

6.10.1 Enter the data encoding format

If you need to scan Chinese, please set the input encoding format to Autoidentify GBK and UTF8.
If you need to scan Traditional Chinese, please set the input to Autoidentify BIG5 and UTF8.
If you need to scan the Japanese, please enter "Autoidentify Shift-JIS and UTF8".

*Automatically identifies GBK with UTF8

Automatically identifies BIG5 with UTF8

Automatically identifies Shift-JIS with UTF8

6.10.2 Output data encoding format

For the device to print the data in a specified encoding format, the "Output Data Encoding Format" can be set. Including GBK, UNICODE, BIG5 (Traditional Chinese), and Shift JIS (Japanese). Default GBK format.

*Output encoding GBK (for Notepad / Excel)

Output encoding UNICODE (for word output)

Output code BIG5 (Traditional Chinese)

Shift-JIS encoding (Japanese)

In addition, there are some application scenarios that require the module to output the following encoding methods. If using another country keyboard layout, the output format needs to be set to the native data output. When making a serial port output, you may need to convert the encoding to a UTF8 output.

Original data output

Output code UTF8 (serial port)

6.11 ECI mode setting

*Enable the ECI mode

Prohibit ECI pattern

6.12 Invoice mode

*Allow invoice mode

Prohibit invoice mode

6.13 QR website code setting

Turn off the QR website code readable

*Turn on the QR website code readable

7 Barcode symbol parameter

7.1 Global operation

7.1.1 Action for all symbol types

Read the following setup codes for all supported symbol types to allow or prohibit reading. After banning all types, only QR setup codes are allowed.

Allow to read all the types

Prohibit to read all the types

Recover the default read type

7.1.2 Operation on all 1D barcode symbol types

Read the following setup codes, and only unify operations on all 1 D barcode symbol types, or all allow to read, or all prohibit to read.

Allow to read all 1D barcode types

Prohibit to read all 1D barcode types

7.1.3 Operation on all 2D barcode symbol types

Read the following setup codes, only to unify all 2 D bar code symbol types, or all allow to read, or all prohibit to read.

Allow to read all 2 D barcode types

Prohibit to read all 2 D barcode types

7.2 QR setup code setting

After the existing module closed QR code system, can continue to read QR, but not output. Scan the following configuration code to configure whether the QR code system is actually configured. Note: If the actual QR configuration code system is opened and the QR code system is turned off, the QR code system and the QR setting code cannot be read, please use it carefully.

* Not actual configure of the QR   Actual configuration of the QR

7.3 GS1 AI setting

In order to output the code value according to the GS1 AI rules, you also need to enable the GS1 AI rule function.

Enable the GS1 AI output rule   *Prohibit the GS1 AI output rule

7.4 Reverse color code setting

If turn on the configuration , the recognition speed is affected. Please turn it on in the required scenario.

7.4.1 Operation for reverse codes

Allow to read reverse codes   *Prohibit to read reverse codes

7.4.2 1D code reverse color setting

Allow to read 1D reverse color code   * Prohibit to read 1D reverse color code

7.4.3 2D code reverse color setting

Allow to read the PDF417 reverse color code

*Prohibit to read the PDF417 reverse color code

Allow to read the DM reverse color code

*Prohibit to read the DM reverse color code

Allow to read the QR r e v e r s e c o l o r c o d e

*Prohibit to read the QR reverse color code

Allow to read the Micro PDF417 reverse color code

*Prohibit to read the Micro PDF417 reverse   color code

Allow to read the Aztec r e v e r s e c o l o r c o d e

*Prohibit to read the Aztec reverse color code

Allow to read the Maxicode r e v e r s e c o l o r c o d e

*Prohibit to read the Maxicode r e v e r s e
c o l o r c o d e

Allow to read the Han xin code reverse color code

*Prohibit to read the Han xin code reverse color code

Allow to read the DotCode r e v e r s e c o l o r c o d e

*Prohibit to read the DotCode r e v e r s e c o l o r
c o d e

7.5 Code 128

7.5.1 Restore default setting

Restore the Code 128 default setting

7.5.2 Allow / prohibit to read the Code 128

*Allow to read the Code 128

Prohibit to read the Code 128

7.5.3 Set the length limit

*Set the min length limit of 00

Set the min length limit of 04

Set the max length limit of 32

*255Set the maxlength limit of 255

Customize the min length

Customize setting the max length

7.6 EAN-8

7.6.1 Restore default setting

Restore the EAN8 default setting

7.6.2 Allow / Prohibit to read the EAN-8

*Allow to read the EAN-8

Prohibit to read the EAN-8

7.6.3 Output check

The EAN-8 barcode data is fixed to 8 bytes and the last 1 byte is check.

* Output check

Not output check

7.6.4 Extended code

Either the read moudle can read the barcode sybmol with extended code or it can read the barcode symbol not with extende code, after setting it as "read 2 bits extended code"or "read 5 bits extended code".The extende code attached with the barcode symbol will not be read output after set it as "not read 2 bits extended code"or "not read 5 bits extended code"

Prohibit to read 2 bits extended code

Allow to read 2 bits extended code

*Prohibit to read the 5 bits extended code   Allow to read the 5 bits extended code

7.6.5 Must include extended code

Set to "must include extended code" and can only identify barcode symbol with extended code.

*Not require   Must include additional code

7.6.6 Allow / prohibit transfer to EAN13

* Prohibit EAN8 transfer to EAN13   Allow EAN8 to transfer to EAN13

7.7 EAN-13

7.7.1 Restore default setting

Restore the EAN-13 default setting

7.7.2 Allow / Prohibit to read EAN-13

*Allow to read the EAN-13   Prohibit tp read the EAN-13

7.7.3 Output check

*Output check

Not output check

7.7.4 Extended code

Either the read moudle can read the barcode sybmol with extended code or it can read the barcode symbol not with extende code, after setting it as "read 2 bits extended code"or "read 5 bits extended code".The extende code attached with the barcode symbol will not be read output after set it as "not read 2 bits extended code"or "not read 5 bits extended code"

*Prohibit to read the 2 bits extended code

Allow to read the 2 bits extended code

*Prohibit to read the 5 bits extended code

Allow to read the 5 bits extended code

7.7.5 Must include extended code

Set to "must include extended code" and can only identify barcode symbol with extended code.

*Not require

Must include additional code

7.7.6 EAN13 transfer to ISBN

Other configurations same as the EAN13.

*Prohibit EAN13 transfer to ISBN

Allow EAN13 transfer to ISBN

7.7.7 EAN13 transfer to ISSN

Other configurations same as the EAN13.

*Prohibit EAN13 transfer to ISBN

Allow EAN13 transfer to ISBN

7.8 UPCE0

7.8.1 Restore default setting

Restore the UPCE0 default setting

7.8.2 Allow / Prohibit to read the UPCE0

*Allow to read the UPCE0

Prohibit to read the UPCE0

7.8.3 Output check

*Output check

Not output check

7.8.4 Output system character

*Output system character

Not oput system character

7.8.5 Extended code

Either the read moudle can read the barcode sybmol with extended code or it can read the barcode symbol not with extende code, after setting it as "read 2 bits extended code"or "read 5 bits extended code".The extende code attached with the barcode symbol will not be read output after set it as "not read 2 bits extended code"or "not read 5 bits extended code".

*Prohibit to read the 2 bits extended code

Allow to read the 2 bits extended code

*Prohibit to read the 5 bits extended code

Allow to read the 5 bits extended code

7.8.6 Must include extended code

Set to "must include extended code" and can only identify barcode symbol with extended code.

*Not require

Must include additional code

7.8.7 Allow / Prohibit to transfer to the UPCA

*Prohibit UPCE0 transfer to UPCA

Allow UPCE0 transfer to UPCA

7.9 UPCE1

7.9.1 Restore default setting

Restore the UPCE1 default setting

7.9.2 Allow / Prohibit to read the UPCE1

*Allow to read the UPCE1

Prohibit to read the UPCE1

7.9.3 Output check

* Output check

Not output check

7.9.4 Output system character

*Output system character

Not oput system character

7.9.5 Extended code

Either the read moudle can read the barcode sybmol with extended code or it can read the barcode symbol not with extende code, after setting it as "read 2 bits extended code"or "read 5 bits extended code".The extende code attached with the barcode symbol will not be read output after set it as "not read 2 bits extended code"or "not read 5 bits extended code".

| *Prohibit to read the 2 bits extended code | Allow to read the 2 bits extended code |

| *Prohibit to read the 5 bits extended code | Allow to read the 5 bits extended code |

7.9.6 Must include extended code

Set to "must include extended code" and can only identify barcode symbol with extended code.

| *Not require | Must include additional code |

7.9.7 Allow / Prohibit totransfer to the UPCA

| *Prohibit UPCE1transfer to UPCA | Allow UPCE1transfer to UPCA |

7.10 UPCA

7.10.1 Restore default setting

Restore the UPCA default setting

7.10.2 Allow / Prohibit to read the UPCA

*Allow to read the UPCA

P r o h i b i t t o r e a d t h e UPCA

7.10.3 UPCA transfer to EAN13

*Prohibit

Allow

7.10.4 Output check

* Output check

Not output check

7.10.5 Output system character

*Output system character

Not output system character

7.10.6 Extended code

Either the read moudle can read the barcode sybmol with extended code or it can read the barcode symbol not with extende code, after setting it as "read 2 bits extended code"or "read 5 bits extended code".The extende code attached with the barcode symbol will not be read output after set it as "not read 2 bits extended code"or "not read 5 bits extended code".

*Prohibit to read the 2 bits extended code

Allow to read the 2 bits extended code

*Prohibit to read the 5 bits extended code

Allow to read the 5 bits extended code

7.10.7 Must include extended code

Set to "must include extended code" and can only identify barcode symbol with extended code.

*Not require

Must include additional code

7.11 Interleaved 2 of 5

7.11.1 Restore default setting

Restore the InterLeaved25 default setting

7.11.2 Allow / Prohibit to read the InterLeaved25

*Allow to read the InterLeaved25

Prohibit to read the InterLeaved25

7.11.3 Set the length limit

*Set the min length limit of 00

Set the min length limit of 0004

Set the min length limit of 32

*Set the min length limit of 255

Customize setting the min length

Customize setting the max length

7.11.4 Check and output check

The Interleaved 2 of 5 barcode does not require check, and users can choose to use check according to the different application. Set to "Not check", then the read module will not check the barcode data.

Set to "USS check but not output check", then the read module will USS check the barcode data, and the output data after passing the check will not contain the check character.

Set to "USS check and output check", the read module will USS check the barcode data, and the output data contains the check character.

Set to "OPCC check but not output check", then the read module will conduct OPCC check on the barcode data, and the output data after passing the check will not contain the check character.

Set to "OPCC check and output check", the read module will conduct OPCC check on the barcode data, and the output data includes the check character after passing check.

*Not check

USS check but not output check

USS check and output check

OPCC check but not output check

OPCC check and output check

7.12 Matrix 2 of 5

7.12.1 Restore default setting

Restore the Matrix 25 default setting

7.12.2 Allow / Prohibit to read the Matrix 25

Allow to read the Matrix 25

*Prohibit to read the Matrix 25

7.12.3 Set the length limit

*Set the min length limit of 00

Set the min length limit of 04

Set the max length limit of 32

*Set the max length limit of 255

Customize setting the min length

Customize setting the max length

7.12.4 Check and output check

*Not check

Check but not output check

Check and output check

7.13 Industrial 2 of 5

7.13.1 Restore default setting

Restore the Industrial 25 default setting

7.13.2 Allow / Prohibit to read the Industrial 25

Allow reading the Industrial 25

*Prohibit reading Industrial 25

7.13.3 Set the length limit

*Set the min length limit of 00

Set the min length limit of 04

Set the max length limit of 32

*Set the max length limit of 255

Customize setting the min length

Customize setting the max length

7.13.4 Check and output check

*Not check

Check but not output check

Check and output check

7.14 IATA 2 of 5

7.14.1 Restore default setting

Restore the IATA 25 default setting

7.14.2 Allow / Prohibit to read the IATA 25

Allow to read the IATA 25

*Prohibit to read the IATA 2

7.14.3 Set the length limit

*Set the min length limit of 00

Set the min length limit of 04

Set the max length limit of 32

*Set the max length limit of 255

Customize setting the min length

Customize setting the max length

7.14.4 Check and output check

*Not check

Check but not output check

Check and output check

7.15 Code 39

7.15.1 Restore default setting

Restore the Code 39 default setting

7.15.2 Allow / Prohibit to read the Code 39

*Allow to read the Code 39

Prohibit to read the Code 39

7.15.3 Output the start symbol and terminator

Output the start symbol and terminator

*Not output the start symbol and terminator

7.15.4 Set the length limit

*Set the min length limit of 00

Set the min length limit of 04

Set the max length limit of 32

*Set the max length limit of 255

Customize setting the min length

Customize setting the max length

7.15.5 Check and output check

*Not check

Check but not output check

Check and output check

7.15.6 Prohibit /enable the Code32

*ProhibitCode32

EnableCode32

7.15.7 Code32 prefix

This configuration needs to take effect under the enable Code32 condition.

Enable output of the Code32 prefix

*Prohibit output Code32 prefix

7.15.8 Code32 transport check bit

This configuration needs to take effect under the enable Code32 condition.

Enable the Code32 transfer check bit

*Prohibit the Code32 transfer check bit

7.15.9 Support Full ASCII

The encode method of Code 39 can include a representation of all ASCII characters, which enables the reading module to support barcode with a full ASCII character set.

*Prohibit Full ASCII

Enable Full ASCII

7.16 Codabar

7.16.1 Restore default setting

Restore Codabar default setting

7.16.2 Allow / Prohibit to read the Codabar

*Allow reading the Codabar

Prohibit reading the Codabar

7.16.3 Set the length limit

*Set the min length limit of 00

Set the min length limit of 04

Set the max length limit of 32

*Set the max length limit of 255

Customize setting the min length	Customize setting the max length

7.16.4 Check mode and output check

*Not check

Mode 10 Check and output check | Mode10 Check but not output check

Mode16 Check and output check | Mode16 Check but not output check

7.16.5 Output the start symbol and terminator

Codabar barcode data each having a character as the start symbol and terminator, start symbol and terminator is one of the four characters "A", "B", "C", "D" and also allow to use the representation code of "T", "N", "*", "E" for terminator. You can set no output start symbol and terminator or output one of the four formats.

Not output the start symbol and terminator

*Output start symbol ABCD / terminator ABCD | Output start symbol ABCD / terminator TN*E

![Winson logo]

Output start symbol abcd/terminatorabcd	Output start symbolabcd/terminatortn *e

7.17 Code 93

7.17.1 Restore default setting

Restore Code 93   default setting

7.17.2 Allow / Prohibit to read the Code 93

*Allow to read the Code 93	Prohibit to read the Code 93

7.17.3 Set the length limit

*Set the min length limit of 00	Set the min length limit of 04
Set the max length limit of 32	*Set the max length limit of 255
Customize setting the min length	Customize setting the max length

7.18 Code 11

7.18.1 Restore default setting

Restore Code 11   default setting

7.18.2 Allow / Prohibit to read the Code 11

Allow to read the Code 11

*Prohibit to read the Code11

7.18.3 Set the length limit

*Set the min length limit of 00

Set the min length limit of 04

Set the max length limit of 32

*Set the max length limit of 255

Customize setting the min length

Customize setting the max length

7.18.4 Check mode and output check

Not check

1 bit check when data does not exceed 10 bits, and 2 bits check,transfer check bit when data exceed 10 bits

*1 bit check when data does not exceed 10 bits, and 2 bits check,not transfer check bit when data exceed 10 bits

Fixed 1bit check, transfer check bit

Fixed 1 bit check, not transfer check bit

Fixed 2 bit check, transfer check bit

Fixed 2 bit check, not transfer check bit

7.19 MSI Plessey

7.19.1 Restore default setting

Restore MSI Plessey default setting

7.19.2 Allow / Prohibit to read the MSI Plessey

Allow to read the MSI Plessey

*Prohibit to read MSI Plessey

7.19.3 Set the length limit

*Set the min length limit of 00

Set the min length limit of 04

Set the max length limit of 32

*Set the max length limit of 255

Customize setting the min length

Customize setting the max length

7.19.4 Check mode and output check

Not check

Mode 10 check, transfer check bit

*Mode 10 check, not transfer check bit

Mode 11 check,transfer check bit

Mode 11 check，not transfer check bit

Mode10、 10 check，transfer check bit

Mode 11、10 check，not transfer check bit	Mode 11、10 check，transfer check bit

Mode11、10 check，not transfer check bit

7.20 GS1 DataBar

*Allow to read the GS1 DataBar	Prohibit to read the GS1 DataBar

7.21 GS1 DataBar Limited

*Allow to read the GS1 DataBar Limited	Prohibit to read GS1 DataBar Limited

7.22 GS1 DataBar Expanded

*Allow to read the GS1 DataBar Expanded	Prohibit to read the GS1 DataBar Expanded

7.23 Plessey

7.23.1 Restore default setting

Restore Plessey   default setting

7.23.2 Allow / Prohibit to read the Plessey

*Prohibit to read the Plessey

Allow to read the Plessey

7.23.3 Set the length limit

*Set the min length limit of 00

Set the min length limit of 04

Set the max length limit of 32

*Set the max length limit of 255

Customize setting the min length

Customize setting the max length

7.23.4 Output check

Output check

*Not output check

7.24 Febraban

7.24.1 ITF25 type

Allow to read the Febraban

*Prohibit to read the Febraban

7.24.2 Code128 type

Allow to read the Febraban

*Prohibit to read the Febraban

7.24.3 Check character setting

Turn on the Febraban check

*Turn off Febraban check

7.25 Composite

Allow to read the Composite

*Prohibit to read the Composite

7.26 PDF 417

*Allow to read the PDF 417

Prohibit to read the PDF 417

7.27 QR Code

*Allow to read the QR

Prohibit to read the QR

7.28 Micro QR

Allow to read the Micro QR

*Prohibit to read the Micro QR

7.29 Data Matrix

*Allow to read the Data Matrix

Prohibit to read the Data Matrix

7.30 Micro PDF417

Allow to read the Micro PDF417

*Prohibit to read the Micro PDF417

7.31 Aztec

*Allow to read the Aztec

Prohibit to read the Aztec

7.32 Maxicode

Allow to read the Maxicode

*Prohibit to read the Maxicode

7.33 Han xin code

Allow to read the Han xin code

*Prohibit to read the Han xin code

7.34 DotCode

Allow to read the DotCode

*Prohibit to read the DotCode

8 Data code

8.1 Data code: 0~F

Data code 0

Data code 1

Data code 2

Data code 3

Data code 4

Data code 5

Data code 6

Data code 7

Data code 8

Data code 9

Data code A

Data code B

Data code C

Data code D

Data code E

Data code F

8.2 Save or cancel

After reading the data code, you must read the save code to save the read data. If an error occurs while reading the data code, in addition to the reset, you can also unread the wrong data.

If read a setup code, and read the data in turn,as"1", "" 2 "," 3 ", if read" cancel the one-bit data read earlier ",it will cancel the last read number" 3 ".If read" cancel a string of data read earlier",it will cancel read the data" 123" .If read" cancel the current setting " it will cancel the setting code together.

Save

Cancel the one-bit data read earlier

Cancel a string of data read earlier

Cancel the current setting

9   Get the device information

Get the product version number

Appendix A: default setting table

Parameter name		default setting	Remark
Setup code			
Setup code function		Turn on	
Send the setup code information		Not send	
Communication setting		Keyboard	
TTL-232	Serial port rate	9600	
	Serial check bit	No check bit	
	Serial data bit	8 bit	
	Serial stop position	1bit	
	Serial port hardware flow control	No hardware flow control	
HID-KBW	HID-KBW keyboard layout	American keyboard	
	HID-KBW interkey delay	2ms	
	Poll speed	1ms	
Pattern parameter			
Default read mode		Trigger mode;	Select as one of the batch mode, trigger mode, induction mode, and continuous mode.
Trigger mode	Single read code length	3000ms	Set the range: 1000~3600000ms
	Trigger condition	Electrical level	
	Same read code delay	Not delay	
	Reread timeout reset	Not reset	
	Same the read code delay duration	1500ms	
Induction mode	Single read code length	3000ms	Set the range: 1000~3600000ms
	Image stabilization	60ms	Set the range: 0~1600ms
	Same the read code delay	Not delay	
	Reread timeout reset	Not reset	
	Same the read code delay length	1500ms	Set the range: 0~65535ms
	Scene change threshold value	10	Set the range: 1~50
Continuous mode	Single read code length	3000ms	Set the range: 1000~3600000ms
	Read the interval length	500ms	Set the range: 0~65535ms
	Same the read code delay	Not delay	
	Reread timeout reset	Not reset	
	Same the read code delay length	1500ms	Set the range: 0~65535ms
Light and aim			
Light mode		Common	
Aim mode		Common	
Prompt output			
Boot prompt sound		Output	
Parameter name		default setting	Remark
Read successfully tip	Prompt	Allow	

Sound	Prompt sound type	Type 3	
	Prompt sound volume	High	
Setup code to read the prompt sound		Allow to prompt	
Decoded successfully LED prompt		Turn on	
NGR	Send prompt	Not send	
	Prompt content	No	
Data edition			
Prefix and Code ID order		Prefix is before the Code ID	
Add the prefix		Not add	
Prefix content		No	
Code ID		Not add	
Add the suffix		Not add	
Suffix content		No	
Add the terminator		Add	
Terminator content		0x0D	
Data segment truncation		Transfer all Data segment	
Modify the data segment length		0	Set the range：0~255
Output encoding type		GBK	Select GBK, UTF8, UNICODE, Original data output
ECI pattern		Support	
Invoice mode		Support	
Barcode symbol parameter			
Code128			
Read		Allow	
Maximum length		255	
Minimum length		0	
EAN-8			
Allow		Allow	
Output the check symbol		Output	
2 bits extended code		Not read	
5 bits extended code		Not read	
Must include extended code		Not require	
EAN8 transfer to EAN13		Prohibit	
EAN-13			
Read		Allow	
Output the check symbol		Output	
2 bits extended code		Not read	
5 bits extended code		Not read	
Must include extended code		Not require	
Parameter name		default setting	Remark
EAN13 transfer to ISBN		Prohibit	
EAN13 transfer to ISSN		Prohibit	
UPCE0			

Read	Allow	
Output check symbol	Output	
Output system symbol	Output	
2 bits extended code	Not read	
5 bits extended code	Not read	
Must include extended code	Not require	
UPCE0 transfer to UPCA	Prohibit	
UPCE1		
Read	Allow	
Output check symbol	Output	
Output system symbol	Output	
2 bits extended code	Not read	
5 bits extended code	Not read	
Must include extended code	Not require	
UPCE1 transfer to UPCA	Prohibit	
UPCA		
Read	Allow	
UPCA transfer to EAN13	Prohibit	
Output check symbol	Output	
2 bits extended code	Not read	
5 bits extended code	Not read	
Must include extended code	Not require	
Output system symbol	Output	
Interleaved 2 of 5		
Read	Allow	
Check	Not check	
Output check symbol	Not output	
Maximum length	255	
Minimum length	0	
Matrix 2 of 5		
Read	Not allow	
Check	Not check	
Output the check symbol	Not output	
Maximum length	255	
Minimum length	0	
Industrial 2 of 5		
Read	Not allow	
Parameter name	default setting	Remark
Check	Not check	
Minimum length	Not output	
Maximum length	255	
Minimum length	0	
IATA25		

Read	Not allow	
Check	Not check	
Output the check symbol	Not output	
Maximum length	255	
Minimum length	0	
Code 39		
Read	Allow	
Check	Not check	
Output the check symbol	Not output	
Output start symbol and terminator	Not output	
Support the Full ASCII	Not support	
Transfer to Code 32	Not transfer	
Code32 output prefix	Not output	
Code32 output check	Not output	
Maximum length	255	
Minimum length	0	
Codabar		
Read	Allow	
Check	Not check	
Output the check symbol	Not output	
Output the start symbol and the terminator	Not output	
Start symbol and Terminator format	ABCD/ABCD	
Maximum length	255	
Minimum length	0	
Code 93		
Read	Allow	
Maximum length	255	
Minimum length	0	
Code11		
Read	Prohibit	
Maximum length	255	
Minimum length	0	
Check mode and output check	1-bit school when the data does not exceed 10 bits Check, when the data is greater than 10 bits, 2-bit check, no transmission of check bit	
Parameter name	default setting	Remark
MSI Plessey		
Read	Prohibit	
Maximum length	255	
Minimum length	0	
Check mode and output check	Mode 10 check, no transmission check bit	

PDF417		
Read	Allow	

QR		
Read	Allow	
Micro QR		
Read	Prohibit	
Data Matrix		
Read	Allow	
Micro PDF417		
Read	Prohibit	
Aztec		
Read	Allow	
反色码	Prohibit	
GS1 DataBar		
Read	Allow	
GS1 DataBar Limited		
Read	Allow	
GS1 DataBar Expanded		
Read	Allow	
Plessey		
Read	Prohibit	
Maximum length	255	
Minimum length	0	
Check mode and output check	Not output check	
Febraban		
Read	Prohibit	
Composite		
Read	Prohibit	
Maxicode		
Read	Prohibit	
Hanxin code		
Read	Prohibit	
DotCode		
Read	Prohibit	

Appendix B: Code ID table

Barcode type	Code ID
Code128	j
EAN-8	d
EAN-13	d
UPC-E0	c
UPC-E1	c
UPCA	c
Interleaved 2 of 5	e
Matrix 2 of 5	v
Industrial 2 of 5	D
IATA25	s
Code 39	b
Codabar	a
Code 93	i
PDF417	r
QR	Q
Data Matrix	u
Code 11	H
MSI Plessey	J
Micro QR	Q
Code32	b
ISBN	d
ISSN	d
MicroPDF417	s
Aztec	z
GS1 128	j
AIM 128	f
ISBT 128	F
GS1 DataBar	R
GS1 DataBar Limited	R
GS1 DataBar Expanded	R
Plessey	p
Maxicode	x
Hanxin code	h
DotCode	d
Combined code	m

Appendix C：ASCII code table

Hexadecimal	Decimalism	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)
Hexadecimal	Decimalism	Character	
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	
Hexadecimal	Decimalism	Character	
4d	77	M	
4e	78	N	
4f	79	O	

Hexadecimal	Decimalism	Character	
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	
Hexadecimal	Decimalism	Character	
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 D：example parameter setting

The following examples are all used for parameter settings using the setting code. The "reading 'xxxxx'" in the text refers to the setting code of reading this function.

Single read time limit modification method

Example: Set the limit time of a single read code to 1500ms, and you can read the following bar code in order

place:
1. Read "Open the setting code"; (skip this step if enabled)
2. Read "Customize modify single reading code length limit";
3. Read Data code "1","5","0","0";
4. Read data code "save";
5. Read "Close the setting code"。（save）

Idle time length setting method

Example: Set the idle time to 500ms, you can read the following bar codes in order:
1. Read "Open the setting code"; （If already enabled, you can skip this step）
2. Read "customize the idle time you set";
3. Read data code "5","0","0";
4. Read data code "save";
5. Read "close the setting code"。（save）

Image stabilization Setup method

Example: Set the stabilization time to 500ms, you can read the following bar codes in order:
1. Read "Open the setting code"; （If already enabled, you can skip this step）
2. Read "modify image stabilization ";
3. Read data code "5","0","0";
4. Read data code "save";
5. Read "Close the setting code"。（save）

Same reading code delay modification method

Example: Set the same reading code delay time to 1000ms, and you can read the following bar codes in order to set it:

1. Read"customize modifying the same read code delay time length"；
2. Read"Open the setting code"；（If already enabled, you can skip this step）
3. Read data code "1","0","0","0"；
4. Read data code "save"；
5. Read "Close the setting code"。（save）

Scene change threshold setting method

Example: Set the scenario change gate to 4, which can be set below the Read:
1. Read "open the setting code"；（If already enabled, you can skip this step）
2. Read "modify the scenario change threshold value"；
3. Read data code "4"；
4. Read data code "save"；
5. Read "Close the setting code"。（save）

Setting method of reading interval duration

Example: Set the length of the reading interval to 500ms, and you can read the following bar codes in order:
1. Read "open the setting code"；（If already enabled, you can skip this step）
2. Read "customize modify the reading interval tmie is"；
3. Read data code "5","0","0"；
4. Read data code "save"；
5. Read "Close the setting code"。（save）

Modify the prefix or the suffix

Example: Set the prefix content to "CODE":
1. Check the character table to get the 16 decimal value corresponding to the 4 characters of "CODE" is: 43,4F, 44,45;
2. Read "Open the setting code"；（If already enabled, you can skip this step）
3. Read "modify the prefix content"；
4. Read data code："4","3","4","F","4","4","4","5"；
5. Read data code "save"；
6. Read "Close the setting code"。（save）

Modify the terminator

Example: Change the end character to the letter 0x0D Example:
1．Read "Open the setting code"；（If already enabled, you can skip this step）
2．Read "modify the terminator"；

3．Read data code "0"，"D"；

4．Read data code "save"；

5．Read "Close the setting code"。（save）

Modify the Code ID

Example: Modify the PDF417 Code ID to the letter 'p' Example:
1. Check the character table to get the 16 decimal value corresponding to "p" is 70;
2. Read "open the setting code"；（If already enabled, you can skip this step）
3. Read "modify PDF417 Code ID"；
4. Read data code "7"；"0"；
5. Read data code "save"；
6. Read "close the setting code"。（save）

NGR information setting method

Example: Modify NGR information to string "! ERR" instance:
1. Check the character table to get the "! The 16 decimal value corresponding to ERR " is: 21,45,52,52;
2. Read "open the setting code"；（If already enabled, you can skip this step）
3. Read "modify the NGR information"；
4. Read data code "2"；"1"；"4"；"5"；"5"；"2"；"5"；"2"；
5. Read data code "save"；
6. Read "Close the setting code"。（save）

Set the max length limit or the min length limit

Tip: The maximum length limit is not 127; if the maximum length is less than the minimum length, only the barcode of the two length shall be read; if the maximum length is minimum.

Example: Limit Code 128 type to 8 bytes, up to 12 bytes.
1. Read "Open the setting code"；（If already enabled, you can skip this step）
2. Read Code 128 "Set the min length limit of "；
3. Read data code "8"；
4. Read "save"；
5. Read Code 128 "Set the max length limit of "；
6. Read data code "1"；
7. Read data code "2"；
8. Read "save" code ；
9. Read "Close the setting code"。（save）

Set inter-key latency

Example: Set the delay between keys to 15ms, so you can read the following barcode in order:
1. Read "open the setting code"; （If already enabled, you can skip this step）
2. Read "custom delay between delay";
3. Read data code "1", "5";
4. Read "save";
5. Read "Close the setting code"。 （save）

Modify the LED prompt time

Example: Set the LED prompt time to 200ms, and you can read the following barcode in order:
1. Read "open the setting code"; （If already enabled, you can skip this step）
2. Read "custom delay between delay";
3. Read data code "2", "0", "0";
4. Read "save";
5. Read "Close the setting code"。 （save）

Appendix E：control the character escape table

decimalism	hexadecimal	Corresponding key value (control character escape off)	Corresponding key value (control character escape open)
0	00	Null	Ctrl+2
1	01	Keypad Enter	Ctrl+A
2	02	Caps Lock	Ctrl+B
3	03	Null	Ctrl+C
4	04	Null	Ctrl+D
5	05	Null	Ctrl+E
6	06	Null	Ctrl+F
7	07	Enter	Ctrl+G
8	08	Left Arrow	Ctrl+H
9	09	Horizontal Tab	Ctrl+I
10	0A	Down Arrow	Ctrl+J
11	0B	Vertical Tab	Ctrl+K
12	0C	Backspace	Ctrl+L
13	0D	Enter	Ctrl+M
14	0E	Insert	Ctrl+N
15	0F	Esc	Ctrl+O
16	10	F11	Ctrl+P
17	11	Home	Ctrl+Q
18	12	Print Screen	Ctrl+R
19	13	Delete	Ctrl+S
20	14	tab+shift	Ctrl+T
21	15	F12	Ctrl+U
22	16	F1	Ctrl+V
23	17	F2	Ctrl+W
24	18	F3	Ctrl+X
25	19	F4	Ctrl+Y
26	1A	F5	Ctrl+Z
27	1B	F6	Ctrl+[
28	1C	F7	Ctrl+\
29	1D	F8	Ctrl+]
30	1E	F9	Ctrl+6
31	1F	F10	Ctrl+_

Appendix F：code index table

Code type	Index value
EAN13	0x01

EAN8	0x02
UPCA	0x03
UPCE0	0x04
UPCE1	0x05
CODE128	0x06
CODE39	0x07
CODE93	0x08
CODABAR	0x09
ITF	0x0A
INDUSTRIAL25	0x0B
MATRIX25	0x0C
IATA25	0x0D
CODE11	0x0E
MSI_PLESSEY	0x0F
GS1_DATABAR_14	0x10
GS1_DATABAR_LIMITED	0x11
GS1_DATABAR_EXPANDED	0x12
PLESSEY	0x13
CODE32	0x14
ISBN	0x15
ISSN	0x16
GS1128	0x17
AIM128	0x18
ISBT128	0x19
QR	0x1A
PDF417	0x1B
DM	0x1C
MICRO_QR	0x1D
MICRO_PDF417	0x1E
AZTEC	0x1F
MAXICODE	0x20
COMPOSITE	0x21
HANXIN	0x22
DOTCODE	0x23
All types	0xFF