

# **MT582W**

## **2D Ring Scanner**

### **User's Manual**

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## 1. Introduction

### 1.1 Manual Description

A wearable scanner weighing at 14g, MT582W 2D Wearable Ring Scanner is the most lightweight in the world. When paired with the mobile platform, MT582W provides hands-free freedom to the user who needs to perform multi-tasks while always on the move. Drawing very little power from the host device, the MT582W wearable scanner ensures that the connected mobile terminal can operate for a full shift with a single charge.



### 1.2 Product Requirements

| Model  | Firmware Version              | Interface                     |
|--------|-------------------------------|-------------------------------|
| MT582W | V2.4.1.56.17 or later version | USB HID<br>USB VCP<br>HID POS |

### 1.3 Specifications

| Optic & Performance                     |   |
|---|---|
| Light Source                            | White LED<br>Visible red LED                        |
| Sensor                                  | 640 x 480   |
| Resolution                              | 3mil/ 0.075mm                                       |
| Scan Angle                              | Horizontal 43°<br>Vertical 23°                      |
| Pitch Angle                             | ±55°  |
| Skew Angle                              | ±55°  |
| Roll Angle                              | 360°  |
| Print Contrast Ratio                    | 10%   |
| Width of Field                          | 176mm (13Mil Code39)                                |
| Memory                                  | 2MB (20,000 barcodes)                               |
| Typical D.O.F<br>(Environment: 800 lux) | 5 Mil Code 39 : 42 ~ 204mm                          |
|   | 13 Mil UPC/EAN : 45 ~ 350mm                         |
|   | 15 Mil QR Code : 28 ~ 246mm                         |
|   | 6.67 Mil PDF417 : 46 ~ 152mm                        |
|   | 10 Mil Data Matrix: 37 ~ 150mm                      |
| Physical Characteristics                |   |
| Dimension                               | W27.6 x L46.2 x H26.8 mm                            |
| Weight                                  | 14g   |
| Color                                   | Black   |
| Material                                | PC+ABS  |
| Cable                                   | Type C(M) to Type C(M) Cable, 1.5M                  |
| Trigger                                 | Touch Switches (Trigger Buttons)<br>Function Button |
| Indicator                               | LED, Buzzer   |
| Electrical                              |   |
| Operation Voltage                       | 5.0 VDC ± 5%  |
| Working Current                         | < 200mA   |
| Standby Current                         | < 15mA  |
| Connectivity                            |   |

|                              |   |
|------------------------------|---|
| <b>Interface/ Profile</b>    | USB HID<br>USB VCP  |
| <b>User Environment</b>      |   |
| <b>Operating Temperature</b> | -20 ~ 60°C  |
| <b>Storage Temperature</b>   | -40 ~ 70°C  |
| <b>Humidity</b>              | 0% ~ 95%RH (Non-condensing)   |
| <b>Drop Durability</b>       | 1.5M  |
| <b>Sealing</b>               | IP42  |
| <b>Ambient Light</b>         | 100,000 Lux (Sunlight)  |
| <b>1D Symbologies</b>        | Code 128, EAN-13, EAN8-, UPC-E, UPC-A, ISBN, ISSN, Code 11, Interleaved 2 of 5, Code 39, Code 93, Code 32, Codabar, Matrix 2 of 5, Industrial 2 of 5, Standard 2 of 5, Plessey, MSI Plessey, GS1 Databar, Febraban, Composite |
| <b>2D Symbologies</b>        | QR Code, Micro QR Code, PDF417, MicroPDF417, Data Matrix, Aztec, MaxiCode, HanXin, Dotcode  |
| <b>Regulatory</b>            |   |
| <b>ESD</b>                   | Functional after 4KV contact, 8KV air discharge   |
| <b>EMC/RF</b>                | TBA   |
| <b>Safety Approval</b>       | TBA   |
| <b>Environmental</b>         | WEEE, RoHS 2.0  |

## 1.4 Beeper Indication

| <b>Beeper</b>      | <b>Status</b>  |
|--------------------|--|
| <b>Single beep</b> | Good read  |
| <b>Two beeps</b>   | Error  |
| <b>Three beeps</b> | The scanner successfully reads a configuration barcode |
| <b>Four beeps</b>  | Power Up   |

## 1.5 LED Indication

During scanning operation (pressing touch-activated buttons):

| LED   | Status    |
|-------|-----------|
| Green | Good read |

During button preference configuration (pressing function button):

| LED    | Status                                      |
|--------|---|
| Red    | Enable Left Button Only (Right-handed User) |
| Blue   | Enable Right Button Only (Left-handed User) |
| Purple | Enable Both Button                          |

## 1.6 Barcode Configurability

Scanning below configuration barcodes will allow/prohibit user to change settings by scanning configuration barcodes in this manual.



**Enable Barcode Configurability\***



**Disable Barcode Configurability**

Scanning below configuration barcodes will allow/prohibit configuration barcode data output.



**Enable Config Barcode Data Output**



**Disable Config Barcode Data Output\***

## 1.7 Factory Default

Scanning below configuration barcode will reset all parameters to factory default settings (the ones with \* asterisk mark)



**Factory Default**

## 1.8 Custom Default

You can create your own custom default. Scan **Save Custom Default** configuration barcode below and all the current settings of MT582W will be saved to your custom default, overwriting, if any, the previous one. Scan **Custom Default** to reset MT582W to the custom default settings.





**Save Custom Default**



**Custom Default**

## **1.9 Check Version**

To check firmware version, please scan below configuration barcode.



**Check Version**

## 2. Interface

MT582W provides UART serial interface and multiple USB interfaces to communicate with the host. Through communication interface, it is possible to receive barcode data and send command to control MT582W at the same time.

### 2.1 USB HID

Scanning below configuration barcode will set MT582W to USB HID interface, in which MT582W becomes an HID keyboard device.



USB HID\*

#### 2.1.1 Intercharacter Delay

Intercharacter delay is the time interval between the release of last key and the pressing of the next key. The configurable range is from 0 to 75ms; default is 2ms. Please refer to Appendix D for configuration method of **Set Intercharacter Delay**.



2ms\*



0ms



5ms



10ms



### Set Intercharacter Delay

#### 2.1.2 Polling Rate

The smaller the value, the faster MT582W sends characters to the host. If the host loses characters, please increase polling rate.



1ms\*



2ms



3ms



4ms



5ms



6ms



7ms



8ms



9ms



10ms

### 2.1.3 Keyboard Layout



English (USA)\*



Italian



Spanish



English (UK)



Portuguese (Portugal)



Hungarian



French



German



Turkish Q



Belgian



Portuguese (Brazil)



Turkish F



Greek



Finnish



Czech



Italian (142)



Russian (Typewriter)



Irish



Polish (Programmers)



Japanese

Swedish



Danish



Austrian



Russian



Arabian



Polish (214)



Dutch



Thai



Croatian



Bulgarian



North Korean



Swiss French



Vietnamese



Romanian



Slovak



Ukrainian



Hebrew

### 2.1.4 Alt Code

To ensure that all ASCII code (0x00~0xFF) can be transmitted correctly regardless of keyboard layout, Alt Code can be enabled. When Alt Code is enabled, transmission speed will be slower because all keyboard data is sent by key combinations. Please select one of the following modes according to your applications:

**Mode 1:** Send all ASCII code (0x20~0xFF), not supported by current keyboard layout, by Alt Code.

**Mode 2:** Send all ASCII code (0x20~0xFF) by Alt Code.

**Mode 3:** Send all ASCII code (0x00~0xFF) by Alt Code.

Note: When **Mode 3** and **Control Mode** are enabled at the same time, Control Code (0x00~0x1F) will be sent by Ctrl key combinations.



Disable Alt Code\*



Mode 1



Mode 2



Mode 3

### 2.1.5 Control Mode

Control Code (0x00~0x1F) can be transmitted with two different set of key code depending on Control Mode status. Please refer to Appendix E for corresponding key code for each Control Code.



Ctrl Mode Off\*



Ctrl Mode On



Output Enter, DownArrow Only

0x0A can be converted to either DownArrow or Enter.



**0x0A converts to DownArrow\***

**0x0A converts to Enter**

### 2.1.6 Capslock Mode

Letter case of all alphabets (A~Z) can be altered by below configurations.



**Capslock Off\***



**Invert Case**



**All Upper Case**



**All Lower Case**

### 2.1.7 End of Data Symbol

When enabled, MT582W terminates the data output beyond “\0” symbol within a barcode.



**Disable “\0” as End of Data Symbol    Enable “\0” as End of Data Symbol\***

### 2.1.8 GS Replacement

GS (0x1D) stands for Group Separator and is used as delimiters to mark fields of data structures. As a control code, GS is non-displayable in many text applications and therefore it is required to be replaced by displayable character in some use cases. Since this function conflicts with GS1 AI Output Format, please disable GS1 AI Output Format before using it. When it is configured to “Replaced by Ç”, please also make sure Alt Code is configured to Mode 1.





Disable GS Replacement\*



Replaced by Ç



Replaced by |



Replaced by ^]



Replaced by ]



Replaced by <GS>

### 2.1.9 CRLF Replacement

Letter case of all alphabets (A~Z) can be altered by below configurations.



Disable CRLF Replacement\*



CRLF Replaced by CR



LF Replaced by CR



CRLF, LF Replaced by CR

## 2.2 USB VCP

When configured to USB VCP interface, MT582W can communicate with the host via USB Virtual COM, which requires VCP driver to be installed.



**USB VCP**

## 2.3 HID POS

When configured to USB HID POS interface, MT582W can communicate with the host via USB HID, which requires no driver.



**HID POS**

vid: 0x26f1

pid: 0x8803

Host's command:

| Byte | Content                                       |
|------|---|
| 0    | Message ID (0x04)                             |
| 1    | Data length                                   |
| 2-61 | Data (CMD)                                    |
| 62   | 0x00, 1 byte reserved                         |
| 63   | 0x00 (no data behind) 0x01 (more data behind) |

Scan engine's response:

| Byte  | Content                                       |
|-------|---|
| 0     | Message ID (0x02)                             |
| 1     | Data length                                   |
| 2-57  | Data (DATA)                                   |
| 58-62 | 0x00, 5 bytes reserved                        |
| 63    | 0x00 (no data behind) 0x01 (more data behind) |

### 3. Reading Mode

#### 3.1 Batch Mode

In batch mode, MT582W starts scanning barcode when trigger pin = low. If trigger stays low, the scanning continues, with each barcode scanned once. To restart a new batch reading, the host must reset trigger level first and then pull trigger low again.



**Batch Mode**

#### 3.2 Trigger Mode

In trigger mode, MT582W starts scanning barcode when trigger pin = low. If trigger stays low within LED timeout, the scanning continues. When trigger level is reset or LED timeout expires, the scanning stops. To restart scanning, the host must reset trigger level first and then pull trigger low again.



**Trigger Mode\***

##### 3.2.1 Trigger Condition

When trigger condition = level, the trigger pin must always stay low during a scanning operation. When trigger condition = pulse, MT582W starts scanning whenever a low level pulse at trigger pin is detected, and will continue scanning until a barcode is scanned or a pre-set timeout is reached.



Level\*

Pulse

### 3.2.2 LED Timeout

LED timeout is the maximum scanning duration. When LED timeout expires, the scanning operation stops automatically. The configurable range is from 1000 to 3600000ms; default is 3000ms. Please refer to Appendix D for configuration method of **Set LED Timeout**.



3000ms\*



5000ms



Set LED Timeout

### 3.2.3 Sleep Mode

In trigger mode, MT582W can enter sleep mode after sleep timeout expires, where MT582W consumes much less power. Hardware trigger signal or communication from the host can wake up MT582W. Please note that sleep mode is only applicable for UART interface.



Disable Sleep Mode\*



Enable Sleep Mode

### 3.2.4 Sleep Timeout

When sleep timeout expires, the scan engine enters sleep mode and consumes much less power. The configurable range is from 0 to 65535ms; default is 500ms. Please refer to Appendix D for configuration method of **Set Sleep Timeout**.



500ms\*



1000ms



Set Sleep Timeout

### 3.2.5 Identical Read Interval

When identical read interval = 0ms, a barcode can be scanned only once. When identical read interval > 0ms, a barcode (or an identical one) can be re-scanned after the defined amount of interval expires. When identical read interval is enabled and identical read interval reset is disabled, a barcode (or an identical one) can be re-scanned only after the defined amount of interval expires. When identical read interval is enabled and identical read interval reset is enabled, a barcode (or an identical one) can be re-scanned only if it has not been scanned before the defined amount of interval expires.



Disable Identical Read Interval\*



Enable Identical Read Interval



Disable Identical Read Interval Reset\*



Enable Identical Read Interval Reset

The configurable range is from 0 to 65535ms; default is 1500ms. Please refer to Appendix D for configuration method of **Set Identical Read Interval**.



0ms



1000ms



1500ms\*



3000ms



5000ms



Set Identical Read Interval

### 3.3 Auto-sensing Mode

In auto-sensing mode, MT582W automatically starts scanning barcode when image change is detected within its field of view. MT582W can still be triggered if trigger is pull low. When trigger level is reset or LED timeout expires, the scanning stops.



Auto-sensing Mode

#### 3.3.1 LED Timeout

LED timeout is the maximum scanning duration. When LED timeout expires, the scanning operation stops automatically. The configurable range is from 1000 to 3600000ms; default is 3000ms. Please refer to Appendix D for configuration method of **Set LED Timeout**.



3000ms\*



5000ms



Set LED Timeout

### 3.3.2 Identical Read Interval

When identical read interval = 0ms, a barcode can be scanned only once. When identical read interval > 0ms, a barcode (or an identical one) can be re-scanned after the defined amount of interval expires. When identical read interval is enabled and identical read interval reset is disabled, a barcode (or an identical one) can be re-scanned only after the defined amount of interval expires. When identical read interval is enabled and identical read interval reset is enabled, a barcode (or an identical one) can be re-scanned only if it has not been scanned before the defined amount of interval expires.



Disable Identical Read Interval\*



Enable Identical Read Interval



Disable Identical Read Interval Reset\*



Enable Identical Read Interval Reset

The configurable range is from 0 to 65535ms; default is 1500ms. Please refer to Appendix D for configuration method of **Set Identical Read Interval**.



0ms



1000ms



1500ms\*



3000ms



5000ms



Set Identical Read Interval

### 3.3.3 Image Stabilization Timeout

The configurable range is from 0 to 1600ms; default is 60ms. Please refer to Appendix D for configuration method of **Set Image Stabilization Timeout**.



60ms\*



500ms



1000ms



Set Image Stabilization Timeout

### 3.3.4 Auto-sensing Sensitivity

The higher auto-sensing threshold is, the lower the sensitivity. The configurable range is from 1 to 50; default is 10. Please refer to Appendix D for configuration method of **Set Auto-sensing Threshold**.





Medium



Low



High\*



Ultra High



Set Auto-sensing Threshold

### 3.3.5 Stop Mode

Mode 1: In auto-sensing mode, the LEDs turn off immediately after a barcode is read. MT582W then continues to detect image change.

Mode 2: In auto-sensing mode, MT582W keeps scanning and will not try to detect image change when no barcode is read until LED timeout expires



Mode 1\*



Mode 2

### 3.4 Continuous Mode

In continuous mode, MT582W keeps scanning barcodes continuously. The scanning can be stopped/resumed by pulling low at trigger pin.



---

## Continuous Mode

### 3.4.1 LED Timeout

LED timeout is the maximum scanning duration. When LED timeout expires, the scanning operation stops automatically. The configurable range is from 1000 to 3600000ms; default is 3000ms. Please refer to Appendix D for configuration method of **Set LED Timeout**.



3000ms\*



5000ms



Set LED Timeout

### 3.4.2 Scan Interval

Scan interval is the period of time between two consecutive scans. The configurable range is from 0 to 65535ms; default is 1000ms. Please refer to Appendix D for configuration method of **Set Scan Interval**.



500ms\*



1000ms



2000ms



5000ms



0ms



Set Scan Interval

### 3.4.3 Identical Read Interval

When identical read interval = 0ms, a barcode can be scanned only once. When identical read interval > 0ms, a barcode (or an identical one) can be re-scanned after the defined amount of interval expires. When identical read interval is enabled and identical read interval reset is disabled, a barcode (or an identical one) can be re-scanned only after the defined amount of interval expires. When identical read interval is enabled and identical read interval reset is enabled, a barcode (or an identical one) can be re-scanned only if it has not been scanned before the defined amount of interval expires.



Disable Identical Read Interval\*



Enable Identical Read Interval



Disable Identical Read Interval Reset\*



Enable Identical Read Interval Reset

The configurable range is from 0 to 65535ms; default is 1500ms. Please refer to Appendix D for configuration method of **Set Identical Read Interval**.



0ms



1000ms



1500ms\*



5000ms



3000ms



Set Identical Read Interval

## 4. Illumination and Aimer

### 4.1 Illumination

Illumination LED is designed to provide supplemental light for MT582W in order to increase scanning performance and improve adaptability in low ambient light environment. The behavior of illumination LED can be configured to:

Normal: Illumination LED only turns on during scanning.

Always On: Illumination LED always turns on after MT582W powers up.

Always Off: Illumination LED never turns on in any condition.



Normal\*



Always Off



Always On

### 4.2 Aimer

Aimer LED is designed to provide an aiming pattern at the center of illumination area for MT582W in order to help user target barcode with ease.

The behavior of aimer LED can be configured to:

Normal: Aimer LED only turns on during scanning.

Always On: Aimer LED always turns on after MT582W powers up.

Always Off: Aimer LED never turns on in any condition.



Normal\*



**Always Off**



**Always On**

## 5. Indicator

### 5.1 General Settings

The following configurations control the overall status of all audible indicators including power up beep, good read beep and configuration barcode beep.



Mute



Unmute\*

### 5.2 Power Up Beep

Power-up beep is emitted as indication that MT582W powers up successfully.



On\*



Off

### 5.3 Good Read Beep

Good read beep is emitted as indication that MT582W scans a barcode successfully. The type and volume of good read beep can also be configured in the following sections.



On\*



Off

### 5.3.1 Indicator Beep Type



Type 1



Type 2



Type 3\*

### 5.3.2 Beep Volume



High\*



Medium



Low

### 5.4 Configuration Barcode Beep

Configuration barcode beep is emitted as indication that MT582W scans a configuration barcode successfully.



On\*



Off



## 5.5 Good Read LED and Duration

Good read LED signal is transmitted when MT582W scans a barcode successfully.



On\*



Off

The following configurations determine the duration of good read LED.



100ms



200ms\*



500ms



Set Good Read LED Duration

The configurable range is from 0 to 3600000ms; default is 200ms. Please refer to Appendix D for configuration method of **Set Good Read LED Duration**.

## 5.6 Good Read LED Mode

The behavior of good read LED can be configured to:

Mode 0: Good read LED indicator turns off at power-up. It turns on when a barcode is read and turns off when good read LED duration expires.

Mode 1: Good read LED indicator turns on at power-up. It turns off when a barcode is read and turns on when good read LED duration expires.

Mode 2: Good read LED indicator serves as illumination LED.



**Mode 0\***



**Mode 2**

**Mode 1**

## 5.7 Not Good Read (NGR) Message

When enabled, Not Good Read (NGR) message is transmitted to the host when MT582W fails to scan a barcode after LED timeout expires.



**On**



**Off\***



**Set NGR Message**

The NGR message is N/A by default, and can be 0 to 7 bytes of data, ranging from 00 to FF. Please refer to Appendix D for configuration method of **Set NGR Message**.

## 6. Data Format

Barcode data can be divided into various parts.

Code ID is often used to differentiate barcode data. Sometimes Preamble and Postamble are used.

Data Format can achieve the following:

- Add [STX], [Code ID], [Preamble] to the beginning of barcode data.
- Add [Postamble], [Terminator] to the end of barcode data.

Full data format can be either one of following:

[STX] + [Code ID] + [Preamble] + [DATA] + [Postamble] + [Terminator]

[STX] + [Preamble] + [Code ID] + [DATA] + [Postamble] + [Terminator]

By default STX, Code ID, Preamble and Postamble are disabled; terminator is 0x0D (Carriage Return). If full data format is disabled, only DATA (original data in a barcode) will be displayed. DATA can be further divided into [Start] + [Center] + [End] if the length of Start/End is defined.

### 6.1 General Settings

When full data format is enabled, STX, Code ID, Preamble, Postamble and Terminator become displayable if either of them is defined or enabled.

When full data format is disabled, STX, Code ID, Preamble, Postamble and Terminator become non-displayable even if they are defined or enabled individually.



**Enable Full Data Format\***



**Disable Full Data Format**

### 6.2 Data Length

When Data Length is enabled, two bytes of data, representing data length, will be added to the beginning of barcode data.



**Disable Data Length\***



**Enable Data Length**

### 6.3 STX (0x02)

When STX is enabled, STX (0x02) will be added to the beginning of barcode data.



**Disable STX\***



**Enable STX**

### 6.4 Preamble + Code ID

When Preamble and Code + ID are enabled at the same time, the following configurations can determine their displayed order.



**Code ID + Preamble**



**Preamble + Code ID\***

### 6.5 Preamble

#### 6.5.1 Enable/Disable Preamble

When Preamble is enabled, a user-defined prefix will be added to the beginning of barcode data.



**Enable Preamble**



**Disable Preamble\***

## 6.5.2 Set Preamble



### Set Preamble

Preamble can be 0 to 16 bytes of data, ranging from 00 to FF. Please refer to Appendix D for configuration method of **Set Preamble**.

Example: to set Preamble as "CODE"

1. Convert "CODE" to Hex equivalent as 43, 4F, 44, 45
2. Scan **Set Preamble**
3. Scan **4, 3, 4, F, 4, 4, 4, 5** respectively from **8.1 Data 0~F**
4. Scan **Save Configuration** from **8.2 Save & Abort**

## 6.5.3 Set Preamble of a Symbology



### Set Preamble of a Symbology

Preamble of 0 to 16 bytes of data, ranging from 00 to FF, can be designated to specific type of Symbology. Please refer to Appendix D for configuration method of **Set Preamble**.

Example: to set QR Code's Preamble as "CODE"

1. Find Symbology index of QR Code from Appendix F, which is 1A.
2. Convert "CODE" to Hex equivalent as 43, 4F, 44, 45
3. Scan **Set Preamble of a Symbology**
4. Scan **1, A, 4, 3, 4, F, 4, 4, 4, 5** respectively from **8.1 Data 0~F**
5. Scan **Save Configuration** from **8.2 Save & Abort**

Alternatively, please follow the rule S\_CMD\_051P[X][Y] to generate a single configuration barcode, in which [X] represents the Symbology index from Appendix F; [Y] represents Preamble in Hex equivalent.

For example: S\_CMD\_051P1A434F4445

## 6.5.4 Clear Preamble



Clear Preamble

## 6.6 Code ID

### 6.6.1 Enable/Disable/Reset Code ID

When Code ID is enabled, a user-defined ID will be added to the beginning of specific type of Symbology. Code ID must be 1 digit of alphabet and must not be number, non-displayable character or symbol.



Enable Code ID



Disable Code ID\*



Reset All Code ID to Default

### 6.6.2 Set Code ID

Example: to set PDF417 Code ID as 'p'

1. Convert 'p' to Hex equivalent as 70
2. Scan **Set PDF417 Code ID**
3. Scan **7, 0** respectively from **8.1 Data 0~F**
4. Scan **Save Configuration** from **8.2 Save & Abort**



**Set PDF417 Code ID**



**Set Code128 Code ID**



**Set QR Code ID**



**Set Data Matrix Code ID**



**Set EAN-8 Code ID**



**Set EAN-13 Code ID**



**Set UPC-E0 Code ID**



**Set UPC-E1 Code ID**



**Set UPC-A Code ID**



**Set IATA 2/5 Code ID**



**Set Code39 Code ID**



**Set Code93 Code ID**



**Set Interleaved 2/5 Code ID**



**Set Codabar Code ID**



**Set Industrial 2/5 Code ID**



**Set Matrix 2/5 Code ID**



**Set Code11 Code ID**



**Set MSI Plessey Code ID**



**Set Micro QR Code ID**



**Set Code32 Code ID**



**Set ISBN Code ID**



**Set ISSN Code ID**



**Set GS1-128 Code ID**



**Set AIM 128 Code ID**



**Set ISBT 128 Code ID**



**Set MicroPDF417 Code ID**



**Set Aztec Code ID**



**Set GS1 DataBar Code ID**





Set GS1 DataBar Limited Code ID



Set GS1 DataBar Expanded Code ID



Set Plessey Code ID



Set MaxiCode Code ID



Set HanXin Code ID



Set DotCode Code ID



Set Composite Code ID

## 6.7 Postamble

### 6.7.1 Enable/Disable Postamble

When Postamble is enabled, a user-defined suffix will be added to the end of barcode data.



Enable Postamble



Disable Postamble\*

### 6.7.2 Set Postamble



### Set Postamble

Postamble can be 0 to 16 bytes of data, ranging from 00 to FF. Please refer to Appendix D for configuration method of **Set Postamble**.

Example: to set Preamble as "CODE"

1. Convert "CODE" to Hex equivalent as 43, 4F, 44, 45
2. Scan **Set Postamble**
3. Scan **4, 3, 4, F, 4, 4, 4, 5** respectively from **8.1 Data 0~F**
4. Scan **Save Configuration** from **8.2 Save & Abort**

### 6.7.3 Set Postamble of a Symbology



#### Set Postamble of a Symbology

Postamble of 0 to 16 bytes of data, ranging from 00 to FF, can be designated to specific type of Symbology. Please refer to Appendix D for configuration method of **Set Postamble**.

Example: to set QR Code's Postamble as "CODE"

1. Find Symbology index of QR Code from Appendix F, which is 1A.
2. Convert "CODE" to Hex equivalent as 43, 4F, 44, 45
3. Scan **Set Postamble of a Symbology**
4. Scan **1, A, 4, 3, 4, F, 4, 4, 4, 5** respectively from **8.1 Data 0~F**
5. Scan **Save Configuration** from **8.2 Save & Abort**

Alternatively, please follow the rule S\_CMD\_057S[X][Y] to generate a single configuration barcode, in which [X] represents the Symbology index from Appendix F; [Y] represents Postamble in Hex equivalent.

For example: S\_CMD\_057S1A434F4445

## 6.7.4 Clear Postamble



Clear Postamble

## 6.8 Terminator

### 6.8.1 Enable/Disable Terminator

When Terminator is enabled, an often used or user-defined terminating character will be added to the end of barcode data.



Enable Terminator\*



Disable Terminator

### 6.8.2 Set Terminator



Terminator = 0x0D\*



Terminator = 0x0D 0x0A



Set Terminator

Terminator can be 0 to 7 bytes of data, ranging from 00 to FF. Please refer to Appendix D for configuration method of **Set Terminator**.

Example: to set Terminator as 0x0D

1. Scan **Set Terminator**
2. Scan **0, D** respectively from **8.1 Data 0~F**
3. Scan **Save Configuration** from **8.2 Save & Abort**

### 6.8.3 Quick Terminator Options



Terminator = None



Terminator = CR\*



Terminator = CRLF



Terminator = LF



Terminator = TAB



Terminator = ETX

## 6.9 Data Editing

### 6.9.1 Data Output

DATA can be divided into [Start] + [Center] + [End] if their length is defined.



Send DATA\*



Send Start Only



**Send End Only**



**Send Center Only**

## 6.9.2 Set Data Length



**Set Start Length**



**Set End Length**

Start/End Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Appendix D for configuration method of **Set Start/End Length**.

Example: to set Start Length as 2

1. Convert 2 to Hex equivalent as 02
2. Scan **Set Start Length**
3. Scan **0, 2** respectively from **8.1 Data 0~F**
4. Scan **Save Configuration** from **8.2 Save & Abort**

## 6.9.3 Hide Start/Center/End

DATA can be divided into [Start] + [Center] + [End] if their length is defined. The following configurations determine which part of DATA to be hidden.



**Unhide Start\***



**Hide Start**



Unhide Center\*



Hide Center



Unhide End\*



Hide End

### 6.9.4 Set Data Length of a Symbology

DATA of specific type of Symbology can be divided into [Start] + [Center] + [End] by the following configurations.

#### (1) Set Start Length of a Symbology



#### Set Start Length of a Symbology

Start/End Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Appendix D for configuration method of **Set Start/End Length**.

Example: to set Start Length of QR Code as 2

1. Find Symbology index of QR Code from Appendix F, which is 1A.
2. Convert 2 to Hex equivalent as 02
3. Scan **Set Start Length of a Symbology**
4. Scan **1, A, 0, 2** respectively from **8.1 Data 0~F**
5. Scan **Save Configuration** from **8.2 Save & Abort**

Alternatively, please follow the rule S\_CMD\_05CS[X][Y] to generate a single configuration barcode, in which [X] represents the Symbology index from Appendix F; [Y] represents Start Length in Hex equivalent. Both [X] and [Y] are 2 bytes.

For example: S\_CMD\_05CS1A02

## (2) Set Center Length of a Symbology



### Set Center Length of a Symbology

Center Length must be defined with Start Length in order to take effect. Please note that Center Length and End Length cannot co-exist, with the latest configuration overriding the previous one.

Example: to set Center Length of QR Code as 2

1. Find Symbology index of QR Code from Appendix F, which is 1A.
2. Convert 2 to Hex equivalent as 02
3. Scan **Set Center Length of a Symbology**
4. Scan **1, A, 0, 2** respectively from **8.1 Data 0~F**
5. Scan **Save Configuration** from **8.2 Save & Abort**

Alternatively, please follow the rule S\_CMD\_05CC[X][Y] to generate a single configuration barcode, in which [X] represents the Symbology index from Appendix F; [Y] represents Center Length in Hex equivalent. Both [X] and [Y] are 2 bytes.

For example: S\_CMD\_05CC1A02

## (3) Set End Length of a Symbology



### Set End Length of a Symbology

Example: to set End Length of QR Code as 2

1. Find Symbology index of QR Code from Appendix F, which is 1A.
2. Convert 2 to Hex equivalent as 02
3. Scan **Set End Length of a Symbology**

4. Scan **1, A, 0, 2** respectively from **8.1 Data 0~F**
5. Scan **Save Configuration** from **8.2 Save & Abort**

Alternatively, please follow the rule S\_CMD\_05CE[X][Y] to generate a single configuration barcode, in which [X] represents the Symbology index from Appendix F; [Y] represents End Length in Hex equivalent. Both [X] and [Y] are 2 bytes.

For example: S\_CMD\_05CE1A02

### 6.9.5 Clear Data Length



Clear Data Length

### 6.10 Encoding Format

#### 6.10.1 Input Encoding Format

To scan Simplified Chinese, please configure to GBK and UTF8.

To scan Traditional Chinese, please configure to BIG5 and UTF8.

To scan Japanese, please configure to Shift-JIS and UTF8.



GBK and UTF8\*



BIG5 and UTF8



Shift-JIS and UTF8



## 6.10.2 Output Encoding Format

Output Encoding Format enables various output format for different applications, including GBK, UNICODE, BIG5 and Shift-JIS. Default is GBK.



**GBK\***  
(Notepad, Excel)



**UNICODE**  
(Word)



**BIG5**  
(Traditional Chinese)



**Shift-JIS**  
(Japanese)

In some applications, below configurations are needed. For other keyboard layout, Output Encoding Format should be configured to raw data. For UART interface, it is often configured to UTF8.



**Raw Data**



**UTF8**  
(UART)

## 6.11 ECI Mode



**Enable ECI Mode\***



**Disable ECI Mode**

## 6.12 QR Code with URL



**Disable QR Code with URL**



**Enable QR Code with URL\***

## 7. Symbologies

### 7.1 General Settings

#### 7.1.1 All Symbologies



Enable All Symbologies



Disable All Symbologies



Enable Default Symbologies

#### 7.1.2 1D Symbologies



Enable All 1D Symbologies



Disable All 1D Symbologies

#### 7.1.3 2D Symbologies



Enable All 2D Symbologies



Disable All 2D Symbologies

### 7.2 Surround GS1 Application Identifiers (AI's) with

## Parentheses

When enabled, all GS1 AI in barcode(GS1-128, GS1-DataMatrix, UDI...) will be surrounded with parentheses.



Surround AI's with Parentheses



Not Surround AI's with Parentheses\*

## 7.3 Inverse Barcode

When Inverse Barcode is enabled, the scanning speed may slow down. Please enable it when needed.

### 7.3.1 All Inverse Barcode



Enable All Inverse Barcodes



Disable All Inverse Barcodes\*

### 7.3.2 1D Inverse Barcode



Enable All 1D Inverse Barcodes



Disable All 1D Inverse Barcodes\*

### 7.3.3 2D Inverse Barcode



Enable Inverse PDF417



Disable Inverse PDF417\*



**Enable Inverse Data Matrix**



**Disable Inverse Data Matrix\***



**Enable Inverse QR Code**



**Disable Inverse QR Code\***



**Enable Inverse MicroPDF417**



**Disable Inverse MicroPDF417\***



**Enable Inverse Aztec**



**Disable Inverse Aztec\***



**Enable Inverse MaxiCode**



**Disable Inverse MaxiCode\***



**Enable Inverse HanXin**



**Disable Inverse HanXin\***



**Enable Inverse DotCode**



**Disable Inverse DotCode\***

## 7.4 Code128

### 7.4.1 Reset to Default



**Reset Code128 to Default**

### 7.4.2 Enable/Disable Code128



**Enable Code128\***



**Disable Code128**

### 7.4.3 Min/Max Length



**Min Length = 00\***



**Min Length = 04**



Max Length = 32



Max Length = 255\*



Set Min Length



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Appendix D for configuration method of **Set Min/Max Length**.

## 7.5 EAN-8

### 7.5.1 Reset to Default



Reset EAN-8 to Default

### 7.5.2 Enable/Disable EAN-8



Enable EAN-8\*



Disable EAN-8

### 7.5.3 Check Digit

EAN-8 has a fixed length of 8 digits, with the last one as check digit.



**Send Check Digit\***



**Not Send Check Digit**

### 7.5.4 Supplement

When 2-digit or 5-digit Supplement is enabled, supplement (if any) will be included in barcode data. When disabled, supplement will be excluded in barcode data.



**Disable 2-digit Supplement\***



**Enable 2-digit Supplement**



**Disable 5-digit Supplement\***



**Enable 5-digit Supplement**

### 7.5.5 Supplement Required

When Supplement Required is enabled, only the barcode with 2-digit or 5-digit supplement can be read.



**Disable Supplement Required\***



**Enable Supplement Required**



## 7.5.6 EAN-8 Expand to EAN-13



Disable EAN-8 Expand to EAN-13\*



Enable EAN-8 Expand to EAN-13

## 7.6 EAN-13

### 7.6.1 Reset to Default



Reset EAN-13 to Default

### 7.6.2 Enable/Disable EAN-13



Enable EAN-13\*



Disable EAN-13

### 7.6.3 Check Digit

EAN-13 has a fixed length of 13 digits, with the last one as check digit.



Send Check Digit\*



Not Send Check Digit

### 7.6.4 Supplement

When 2-digit or 5-digit Supplement is enabled, supplement (if any) will be included in barcode data. When disabled, supplement will be excluded in barcode data.



**Disable 2-digit Supplement\***



**Enable 2-digit Supplement**



**Disable 5-digit Supplement\***



**Enable 5-digit Supplement**

### 7.6.5 Supplement Required

When Supplement Required is enabled, only the barcode with 2-digit or 5-digit supplement can be read.



**Disable Supplement Required\***



**Enable Supplement Required**

### 7.6.6 EAN-13 Convert to ISBN



**Disable EAN-13 Convert to ISBN\***



**Enable EAN-13 Convert to ISBN**

## 7.6.7 EAN-13 Convert to ISSN



Disable EAN-13 Convert to ISSN\*



Enable EAN-13 Convert to ISSN

## 7.7 UPC-E0

### 7.7.1 Reset to Default



Reset UPC-E0 to Default

### 7.7.2 Enable/Disable UPC-E0



Enable UPC-E0\*



Disable UPC-E0

### 7.7.3 Check Digit



Send Check Digit\*



Not Send Check Digit

### 7.7.4 System Number



**Send System Number\***



**Not Send System Number**

### 7.7.5 Supplement

When 2-digit or 5-digit Supplement is enabled, supplement (if any) will be included in barcode data. When disabled, supplement will be excluded in barcode data.



**Disable 2-digit Supplement\***



**Enable 2-digit Supplement**



**Disable 5-digit Supplement\***



**Enable 5-digit Supplement**

### 7.7.6 Supplement Required

When Supplement Required is enabled, only the barcode with 2-digit or 5-digit supplement can be read.



**Disable Supplement Required\***



**Enable Supplement Required**

### 7.7.7 UPC-E0 Expand to UPC-A



Disable UPC-E0 Expand to UPC-A\*



Enable UPC-E0 Expand to UPC-A

## 7.8 UPC-E1

### 7.8.1 Reset to Default



Reset UPC-E1 to Default

### 7.8.2 Enable/Disable UPC-E1



Enable UPC-E1\*



Disable UPC-E1

### 7.8.3 Check Digit



Send Check Digit\*



Not Send Check Digit

### 7.8.4 System Number



**Send System Number\***



**Not Send System Number**

### 7.8.5 Supplement

When 2-digit or 5-digit Supplement is enabled, supplement (if any) will be included in barcode data. When disabled, supplement will be excluded in barcode data.



**Disable 2-digit Supplement\***



**Enable 2-digit Supplement**



**Disable 5-digit Supplement\***



**Enable 5-digit Supplement**

### 7.8.6 Supplement Required

When Supplement Required is enabled, only the barcode with 2-digit or 5-digit supplement can be read.



**Disable Supplement Required\***



**Enable Supplement Required**

### 7.8.7 UPC-E1 Expand to UPC-A



Disable UPC-E1 Expand to UPC-A\*



Enable UPC-E1 Expand to UPC-A

## 7.9 UPC-A

### 7.9.1 Reset to Default



Reset UPC-A to Default

### 7.9.2 Enable/Disable UPC-A



Enable UPC-A\*



Disable UPC-A

### 7.9.3 UPC-A Expand to EAN-13



Disable Expand UPC-A to EAN-13\*



Enable UPC-A to EAN-13

### 7.9.4 Check Digit



**Send Check Digit\***



**Not Send Check Digit**

### 7.9.5 System Number



**Send System Number\***



**Not Send System Number**

### 7.9.6 Supplement

When 2-digit or 5-digit Supplement is enabled, supplement (if any) will be included in barcode data. When disabled, supplement will be excluded in barcode data.



**Disable 2-digit Supplement\***



**Enable 2-digit Supplement**



**Disable 5-digit Supplement\***



**Enable 5-digit Supplement**



### 7.9.7 Supplement Required

When Supplement Required is enabled, only the barcode with 2-digit or 5-digit supplement can be read.



**Disable Supplement Required\***



**Enable Supplement Required**

### 7.10 Interleaved 2/5

#### 7.10.1 Reset to Default



**Reset Interleaved 2/5 to Default**

#### 7.10.2 Enable/Disable Interleaved 2/5



**Enable Interleaved 2/5\***



**Disable Interleaved 2/5**

#### 7.10.3 Min/Max Length



Min Length = 00\*



Min Length = 04



Max Length = 32



Max Length = 255\*



Set Min Length



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Appendix D for configuration method of **Set Min/Max Length**.

#### 7.10.4 Verification



Disable Verification\*



Enable USS Verification  
 Not Send Check Digit



Enable USS Verification  
 Send Check Digit



**Enable OPCC Verification  
Not Send Check Digit**



**Enable OPCC Verification  
Send Check Digit**

## 7.11 Matrix 2/5

### 7.11.1 Reset to Default



**Reset Matrix 2/5 to Default**

### 7.11.2 Enable/Disable Matrix 2/5



**Enable Matrix 2/5**



**Disable Matrix 2/5\***

### 7.11.3 Min/Max Length



**Min Length = 00\***



**Min Length = 04**



**Max Length = 32**



**Max Length = 255\***



**Set Min Length**



**Set Max Length**

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Appendix D for configuration method of **Set Min/Max Length**.

#### 7.11.4 Verification



**Disable Verification\***



**Enable Verification  
Not Send Check Digit**



**Enable Verification  
Send Check Digit**

#### 7.12 Industrial 2/5

##### 7.12.1 Reset to Default



**Reset Industrial 2/5 to Default**

### 7.12.2 Enable/Disable Industrial 2/5



**Enable Industrial 2/5**



**Disable Industrial 2/5\***

### 7.12.3 Min/Max Length



**Min Length = 00\***



**Min Length = 04**



**Max Length = 32**



**Max Length = 255\***



**Set Min Length**



**Set Max Length**

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Appendix D for configuration method of **Set Min/Max Length**.

## 7.12.4 Verification



Disable Verification\*



Enable Verification  
Not Send Check Digit



Enable Verification  
Send Check Digit

## 7.13 IATA 2/5

### 7.13.1 Reset to Default



Reset IATA 2/5 to Default

### 7.13.2 Enable/Disable IATA 2/5



Enable IATA 2/5



Disable IATA 2/5\*

### 7.13.3 Min/Max Length



Min Length = 00\*



Min Length = 04



Max Length = 32



Max Length = 255\*



Set Min Length



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Appendix D for configuration method of **Set Min/Max Length**.

### 7.13.4 Verification



Disable Verification\*



Enable Verification  
 Not Send Check Digit



Enable Verification  
 Send Check Digit

## 7.14 Code39

### 7.14.1 Reset to Default



Reset Code39 to Default

### 7.14.2 Enable/Disable Code39



Enable Code39\*



Disable Code39

### 7.14.3 Send Start & Stop



Send Start & Stop



Not Send Start & Stop\*

### 7.14.4 Min/Max Length





Min Length = 00\*



Max Length = 32



Set Min Length

Min Length = 04



Max Length = 255\*



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Appendix D for configuration method of **Set Min/Max Length**.

### 7.14.5 Verification



Disable Verification\*



Enable Verification  
 Not Send Check Digit



Enable Verification  
 Send Check Digit

### 7.14.6 Enable/Disable Code32



---

**Disable Code32\***

**Enable Code32**

### 7.14.7 Code32 Preamble

Code32 Preamble is applicable when Code32 is enabled.



**Send Code32 Preamble\***



**Not Send Code32 Preamble**

### 7.14.8 Code32 Check Digit

Code32 Check Digit is applicable when Code32 is enabled.



**Send Code32 Check Digit\***



**Not Send Code32 Check Digit**

### 7.14.9 Full ASCII Code39



**Enable Full ASCII Code39**



**Disable Full ASCII Code39\***

## 7.15 Codabar

### 7.15.1 Reset to Default



Reset Codabar to Default

### 7.15.2 Enable/Disable Codabar



Enable Codabar\*



Disable Codabar

### 7.15.3 Min/Max Length



Min Length = 00\*



Min Length = 04



Max Length = 32



Max Length = 255\*



Set Min Length



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Appendix D for configuration method of **Set Min/Max Length**.

### 7.15.4 Verification



Disable Verification\*



Mod10 Verification  
Send Check Digit



Mod10 Verification  
Not Send Check Digit



Mod16 Verification  
Send Check Digit



Mod16 Verification  
Not Send Check Digit

### 7.15.5 Send Start & Stop



Not Send Start & Stop\*



Start & Stop = ABCD/ABCD\*



Start & Stop = ABCD/TN\*E



Start & Stop = abcd/abcd



Start & Stop = abcd/tn\*e

## 7.16 Code93

### 7.16.1 Reset to Default



Reset Code93 to Default

### 7.16.2 Enable/Disable Code93



Enable Code93\*



Disable Code93

### 7.16.3 Min/Max Length



Min Length = 00\*



Min Length = 04



Max Length = 32



Max Length = 255\*



Set Min Length



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Appendix D for configuration method of **Set Min/Max Length**.

## 7.17 Code11

### 7.17.1 Reset to Default



Reset Code11 to Default

### 7.17.2 Enable/Disable Code11



Enable Code11



Disable Code11\*

### 7.17.3 Min/Max Length



Min Length = 00\*



Min Length = 04



Max Length = 32



Max Length = 255\*



Set Min Length



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Appendix D for configuration method of **Set Min/Max Length**.

### 7.17.4 Verification



Disable Verification\*



1-Digit Verification for Code11 of  
 No More than 10 Digits



1-Digit Verification for Code11 of  
 No More than 10 Digits

**2-Digit Verification for Code11 of  
More than 10 Digits  
Send Check Digit**



**1-Digit Verification  
Send Check Digit**



**2-Digit Verification  
Send Check Digit**

**2-Digit Verification for Code11 of  
More than 10 Digits  
Not Send Check Digit**



**1-Digit Verification  
Not Send Check Digit**



**2-Digit Verification  
Not Send Check Digit**

## 7.18 MSI Plessey

### 7.18.1 Reset to Default



**Reset MSI Plessey to Default**

### 7.18.2 Enable/Disable MSI Plessey





Enable MSI Plessey

Disable MSI Plessey\*

### 7.18.3 Min/Max Length



Min Length = 00\*



Min Length = 04



Max Length = 32



Max Length = 255\*



Set Min Length



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Appendix D for configuration method of **Set Min/Max Length**.

### 7.18.4 Verification



Disable Verification\*



**Mod 10 Verification  
Send Check Digit**



**Mod 11 Verification  
Send Check Digit**



**Mod 10/10 Verification  
Send Check Digit**



**Mod 11/10 Verification  
Send Check Digit**

**Mod 10 Verification  
Not Send Check Digit\***



**Mod 11 Verification  
Not Send Check Digit**



**Mod 10/10 Verification  
Not Send Check Digit**



**Mod 11/10 Verification  
Not Send Check Digit**

## 7.19 GS1 DataBar



**Enable GS1 DataBar\***



**Disable GS1 DataBar**

## 7.20 GS1 DataBar Limited



**Enable GS1 DataBar Limited\***



**Disable GS1 DataBar Limited**

## 7.21 GS1 DataBar Expanded



**Enable GS1 DataBar Expanded\***



**Disable GS1 DataBar Expanded**

## 7.22 Plessey

### 7.22.1 Reset to Default



**Reset Plessey to Default**

### 7.22.2 Enable/Disable Plessey



**Enable Plessey**



**Disable Plessey\***

### 7.22.3 Min/Max Length



Min Length = 00\*



Min Length = 04



Max Length = 32



Max Length = 255\*



Set Min Length



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Appendix D for configuration method of **Set Min/Max Length**.

### 7.22.4 Check Digit



Send Check Digit



Not Send Check Digit\*

## 7.23 Febraban

### 7.23.1 Enable/Disable ITF25 Febraban



**Enable ITF25 Febraban**



**Disable ITF25 Febraban\***

### 7.23.2 Enable/Disable Code128 Febraban



**Enable Code128 Febraban**



**Disable Code128 Febraban\***

### 7.23.3 Verification



**Enable Verification**



**Disable Verification\***

### 7.24 Composite



**Enable Composite**



**Disable Composite\***

### 7.25 PDF417



**Enable PDF417\***



**Disable PDF417**

## 7.26 QR Code



**Enable QR Code\***



**Disable QR Code**

## 7.27 Micro QR Code



**Enable Micro QR Code**



**Disable Micro QR Code\***

## 7.28 Data Matrix



**Enable Data Matrix\***



**Disable Data Matrix**

## 7.29 MicroPDF417



**Enable MicroPDF417**



**Disable MicroPDF417\***

### 7.30 Aztec



**Enable Aztec\***



**Disable Aztec**

### 7.31 MaxiCode



**Enable MaxiCode**



**Disable MaxiCode\***

### 7.32 HanXin



**Enable HanXin**



**Disable HanXin\***

### 7.33 DotCode



**Enable DotCode**



**Disable DotCode\***



## 8. Configuration Barcode

### 8.1 Data 0~F



0



1



2



3



4



5



6



7



8



9



A



B



C



D



E



F

## 8.2 Save & Abort

If there is an error reading barcode in **8.1 Data 0~F** during configuration, you may cancel 1 or all data by scanning below configuration barcodes.

For example, barcode data '1', '2', '3' have been scanned respectively during configuration. If you want to cancel '3', scan **Abort 1 Data**. If you want to cancel '123', scan **Abort All Data**. Alternatively you may scan **Abort Configuration** to cancel the whole configuration process.



**Save Configuration**



**Abort 1 Data**



**Abort All Data**



**Abort Configuration**

## Appendix

### Appendix A - Default Table

| Function                   |                               | Default       | Remark                |
|----------------------------|-------------------------------|---------------|-----------------------|
| Barcode Configurability    |                               | Enable        |                       |
| Config Barcode Data Output |                               | Disable       |                       |
| Interface                  |                               | USB HID       |                       |
| USB HID                    | Intercharacter Delay          | 2ms           |                       |
|                            | Polling Rate                  | 1ms           |                       |
|                            | Keyboard Layout               | English (USA) |                       |
|                            | Alt Code                      | Disable       |                       |
|                            | Control Mode                  | Off           |                       |
|                            | Capslock Mode                 | Off           |                       |
|                            | End of Data Symbol            | Enable        |                       |
|                            | GS Replacement                | Disable       |                       |
|                            | CRLF Replacement              | Disable       |                       |
| Reading Mode               |                               | Trigger Mode  |                       |
| Trigger Mode               | Trigger Condition             | Level         |                       |
|                            | LED Timeout                   | 3000ms        | Range: 1000~3600000ms |
|                            | Sleep Mode                    | Disable       |                       |
|                            | Sleep Timeout                 | 500ms         |                       |
|                            | Identical Read Interval       | Disable       |                       |
|                            | Identical Read Interval Reset | Disable       |                       |
|                            | Set Identical Read Interval   | 1500ms        |                       |
| Auto-sensing Mode          | LED Timeout                   | 3000ms        | Range: 1000~3600000ms |
|                            | Image Stabilization Timeout   | 60ms          | Range: 0~1600ms       |
|                            | Identical Read Interval       | Disable       |                       |
|                            | Identical Read Interval Reset | Disable       |                       |
|                            | Set Identical Read Interval   | 1500ms        | Range: 0~65535ms      |

|                             |                               |                    |                       |
|-----------------------------|-------------------------------|--------------------|-----------------------|
|                             | Image Stabilization Timeout   | 60ms               |                       |
|                             | Auto-sensing Sensitivity      | High               |                       |
|                             | Auto-sensing Threshold        | 10                 | Range: 1~50           |
|                             | Stop Mode                     | Mode 1             |                       |
| Continuous Mode             | LED Timeout                   | 3000ms             | Range: 1000~3600000ms |
|                             | Scan Interval                 | 500ms              | Range: 0~65535ms      |
|                             | Identical Read Interval       | Disable            |                       |
|                             | Identical Read Interval Reset | Disable            |                       |
|                             | Set Identical Read Interval   | 1500ms             | Range: 0~65535ms      |
| Illumination                |                               | Normal             |                       |
| Aimer                       |                               | Normal             |                       |
| General Settings            |                               | Unmute             |                       |
| Power Up Beep               |                               | Enable             |                       |
| Good Read                   | Beep                          | Enable             |                       |
|                             | Indicator Beep Type           | Type 3             |                       |
|                             | Beep Volume                   | High               |                       |
| Configuration Barcode Beep  |                               | Enable             |                       |
| Good Read                   | LED                           | Enable             |                       |
|                             | LED Duration                  | 200ms              |                       |
|                             | LED Mode                      | Mode 0             |                       |
| NGR                         | On/Off                        | Off                |                       |
|                             | Message                       | None               |                       |
| Full Data Format            |                               | Enable             |                       |
| Data Length                 |                               | Disable            |                       |
| STX (0x02)                  |                               | Disable            |                       |
| Preamble + Code ID          |                               | Preamble + Code ID |                       |
| Preamble                    |                               | Disable            |                       |
| Set Preamble                |                               | None               |                       |
| Set Preamble of a Symbology |                               | None               |                       |
| Code ID                     |                               | Disable            |                       |
| Set Code ID                 |                               | None               |                       |
| Postamble                   |                               | Disable            |                       |
| Set Postamble               |                               | None               |                       |

|  |                         |              |
|--|-------------------------|--------------|
| Set Postamble of a Symbology                                 | None                    |              |
| Terminator   | Enable                  |              |
| Quick Terminator Options                                     | CR                      |              |
| Set Terminator   | 0x0D                    |              |
| Data Output  | Send Data               |              |
| Data Length  | 0                       | Range: 0~255 |
| Hide Start/Center/End  | Unhide Start/Center/End |              |
| Data Length of a Symbology                                   | 0                       |              |
| Input Encoding Format  | GBK and UTF8            |              |
| Output Encoding Format                                       | GBK                     |              |
| ECI Mode   | Enable                  |              |
| QR Code with URL   | Enable                  |              |
| Surround GS1 Application Identifiers (AI's) with Parentheses | Enable                  |              |
| All Inverse Barcode  | Disable                 |              |
| 1D Inverse Barcode   | Disable                 |              |
| 2D Inverse Barcode   | Disable                 |              |
| <b>Code128</b>   |                         |              |
| Enable/Disable   | Enable                  |              |
| Max Length   | 255                     |              |
| Min Length   | 0                       |              |
| <b>EAN-8</b>   |                         |              |
| Enable/Disable   | Enable                  |              |
| Check Digit  | Send                    |              |
| 2-digit Supplement   | Disable                 |              |
| 5-digit Supplement   | Disable                 |              |
| Supplement Required  | Disable                 |              |
| EAN-8 Expand to EAN-13                                       | Disable                 |              |
| <b>EAN-13</b>  |                         |              |
| Enable/Disable   | Enable                  |              |
| Check Digit  | Send                    |              |
| 2-digit Supplement   | Disable                 |              |
| 5-digit Supplement   | Disable                 |              |
| Supplement Required  | Disable                 |              |
| EAN13 Convert to ISBN  | Disable                 |              |
| EAN13 Convert to ISSN  | Disable                 |              |

| <b>UPC-E0</b>          |         |  |
|------------------------|---------|--|
| Enable/Disable         | Enable  |  |
| Check Digit            | Send    |  |
| System Number          | Send    |  |
| 2-digit Supplement     | Disable |  |
| 5-digit Supplement     | Disable |  |
| Supplement Required    | Disable |  |
| UPC-E0 Expand to UPC-A | Disable |  |
| <b>UPC-E1</b>          |         |  |
| Enable/Disable         | Enable  |  |
| Check Digit            | Send    |  |
| System Number          | Send    |  |
| 2-digit Supplement     | Disable |  |
| 5-digit Supplement     | Disable |  |
| Supplement Required    | Disable |  |
| UPC-E1 Expand to UPC-A | Disable |  |
| <b>UPC-A</b>           |         |  |
| Enable/Disable         | Enable  |  |
| UPCA Expand to EAN13   | Disable |  |
| Check Digit            | Send    |  |
| System Number          | Send    |  |
| 2-digit Supplement     | Disable |  |
| 5-digit Supplement     | Disable |  |
| Supplement Required    | Disable |  |
| <b>Interleaved 2/5</b> |         |  |
| Enable/Disable         | Enable  |  |
| Max Length             | 255     |  |
| Min Length             | 0       |  |
| Verification           | Disable |  |
| <b>Matrix 2/5</b>      |         |  |
| Enable/Disable         | Disable |  |
| Max Length             | 255     |  |
| Min Length             | 0       |  |
| Verification           | Disable |  |
| <b>Industrial 2/5</b>  |         |  |
| Enable/Disable         | Disable |  |

|                       |           |  |
|-----------------------|-----------|--|
| Max Length            | 255       |  |
| Min Length            | 0         |  |
| Verification          | Disable   |  |
| <b>IATA 2/5</b>       |           |  |
| Enable/Disable        | Disable   |  |
| Max Length            | 255       |  |
| Min Length            | 0         |  |
| Verification          | Disable   |  |
| <b>Code39</b>         |           |  |
| Enable/Disable        | Enable    |  |
| Start & Stop          | Not Send  |  |
| Max Length            | 255       |  |
| Min Length            | 0         |  |
| Verification          | Disable   |  |
| Enable/Disable Code32 | Disable   |  |
| Code32 Preamble       | Not Send  |  |
| Code32 Check Digit    | Not Send  |  |
| Full ASCII Code39     | Disable   |  |
| <b>Codabar</b>        |           |  |
| Enable/Disable        | Enable    |  |
| Max Length            | 255       |  |
| Min Length            | 0         |  |
| Verification          | Disable   |  |
| Start & Stop          | Not Send  |  |
| Start & Stop Type     | ABCD/ABCD |  |
| <b>Code93</b>         |           |  |
| Enable/Disable        | Enable    |  |
| Max Length            | 255       |  |
| Min Length            | 0         |  |
| <b>Code11</b>         |           |  |
| Enable/Disable        | Disable   |  |
| Max Length            | 255       |  |
| Min Length            | 0         |  |
| Verification          | Disable   |  |
| <b>MSI Plessey</b>    |           |  |
| Enable/Disable        | Disable   |  |

|                                 |          |  |
|---------------------------------|----------|--|
| Max Length                      | 255      |  |
| Min Length                      | 0        |  |
| Verification                    | Disable  |  |
| <b>GS1 DataBar</b>              |          |  |
| Enable/Disable                  | Enable   |  |
| <b>GS1 DataBar Limited</b>      |          |  |
| Enable/Disable                  | Enable   |  |
| <b>GS1 DataBar Expanded</b>     |          |  |
| Enable/Disable                  | Enable   |  |
| <b>Plessey</b>                  |          |  |
| Enable/Disable                  | Disable  |  |
| Max Length                      | 255      |  |
| Min Length                      | 0        |  |
| Check Digit                     | Not Send |  |
| <b>Febraban</b>                 |          |  |
| Enable/Disable ITF25 Febraban   | Disable  |  |
| Enable/Disable Code128 Febraban | Disable  |  |
| Verification                    | Disable  |  |
| <b>Composite</b>                |          |  |
| Enable/Disable                  | Disable  |  |
| <b>PDF417</b>                   |          |  |
| Enable/Disable                  | Enable   |  |
| <b>QR Code</b>                  |          |  |
| Enable/Disable                  | Enable   |  |
| <b>Micro QR Code</b>            |          |  |
| Enable/Disable                  | Disable  |  |
| <b>Data Matrix</b>              |          |  |
| Enable/Disable                  | Enable   |  |
| <b>MicroPDF417</b>              |          |  |
| Enable/Disable                  | Disable  |  |
| <b>Aztec</b>                    |          |  |
| Enable/Disable                  | Enable   |  |
| <b>MaxiCode</b>                 |          |  |
| Enable/Disable                  | Disable  |  |
| <b>HanXin</b>                   |          |  |
| Enable/Disable                  | Disable  |  |



|                |         |  |
|----------------|---------|--|
| <b>DotCode</b> |         |  |
| Enable/Disable | Disable |  |

## Appendix B - Code ID

| Symbology            | Code ID |
|----------------------|---------|
| Code128              | j       |
| EAN-8                | d       |
| EAN-13               | d       |
| UPC-E0               | c       |
| UPC-E1               | c       |
| UPC-A                | c       |
| Interleaved 2/5      | e       |
| Matrix 2/5           | v       |
| Industrial 2/5       | D       |
| IATA 2/5             | s       |
| Code39               | b       |
| Codabar              | a       |
| Code93               | i       |
| PDF417               | r       |
| QR Code              | Q       |
| Data Matrix          | u       |
| Code 11              | H       |
| MSI Plessey          | J       |
| Micro QR Code        | 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               | H       |

|           |   |
|-----------|---|
| DotCode   | d |
| Composite | m |

## Appendix C - ASCII Table

| Hex | Dec | ASCII                         |
|-----|-----|-------------------------------|
| 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)(DeviceControl1)     |
| 12  | 18  | DC2 (DeviceControl2)          |
| 13  | 19  | DC3 (XOFF)(DeviceControl3)    |
| 14  | 20  | DC4 (DeviceControl4)          |
| 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 D - Configuration Method

### LED Timeout

Example: to set LED Timeout as 1500ms

1. Scan **Set LED Timeout**
2. Scan **1, 5, 0, 0** respectively from **8.1 Data 0~F**
3. Scan **Save Configuration** from **8.2 Save & Abort**

### Sleep Timeout

Example: to set Sleep Timeout as 500ms

1. Scan **Set Sleep Timeout**
2. Scan **5, 0, 0** respectively from **8.1 Data 0~F**
3. Scan **Save Configuration** from **8.2 Save & Abort**

### Image Stabilization Timeout

Example: to set Image Stabilization Timeout as 500ms

1. Scan **Set Image Stabilization Timeout**
2. Scan **5, 0, 0** respectively from **8.1 Data 0~F**
3. Scan **Save Configuration** from **8.2 Save & Abort**

### Identical Read Interval

Example: to set Identical Read Interval as 100ms

1. Scan **Set Identical Read Interval**
2. Scan **1, 0, 0, 0** respectively from **8.1 Data 0~F**
3. Scan **Save Configuration** from **8.2 Save & Abort**

### Auto-sensing Threshold

Example: to set Auto-sensing Threshold as 4

1. Scan **Set Auto-sensing Threshold**
2. Scan **4** from **8.1 Data 0~F**
3. Scan **Save Configuration** from **8.2 Save & Abort**



## Scan Interval

Example: to set Scan Interval as 500ms

1. Scan **Set Scan Interval**
2. Scan **5, 0, 0** respectively from **8.1 Data 0~F**
3. Scan **Save Configuration** from **8.2 Save & Abort**

## Preamble/Postamble

Example: to set Preamble/Postamble as "CODE"

1. Convert "CODE" into Hex equivalent as 43, 4F, 44, 45
2. Scan **Set Preamble**
3. Scan **4, 3, 4, F, 4, 4, 4, 5** respectively from **8.1 Data 0~F**
4. Scan **Save Configuration** from **8.2 Save & Abort**

## Terminator

Example: to set Terminator as 0x0D

1. Scan **Set Terminator**
2. Scan **0, D** respectively from **8.1 Data 0~F**
3. Scan **Save Configuration** from **8.2 Save & Abort**

## Code ID

Example: to set PDF417 Code ID as 'p'

1. Convert 'p' to Hex equivalent as 70
2. Scan **Set PDF417 Code ID**
3. Scan **7, 0** respectively from **8.1 Data 0~F**
4. Scan **Save Configuration** from **8.2 Save & Abort**

## NGR (Not Good Read) Message

Example: to set NGR Message as '!ERR'

1. Convert '!ERR' to Hex equivalent as 21, 45, 52, 52
2. Scan **Set NGR Message**
3. Scan **2, 1, 4, 5, 5, 2, 5, 2** respectively from **8.1 Data 0~F**
4. Scan **Save Configuration** from **8.2 Save & Abort**

## Min/Max Length

Note: The maximum length of any 1D Symbology cannot exceed 127. When Max Length is shorter than Min Length, only these two specific lengths of barcode can be read. When Max Length equals to Min Length, only one specific length of barcode can be read.

Example: to set Min Length as 8 and set Max Length as 12

1. Scan **Set Min Length**
2. Scan **8** from **8.1 Data 0~F**
3. Scan **Save Configuration** from **8.2 Save & Abort**
4. Scan **Set Max Length**
5. Scan **1, 2** respectively from **8.1 Data 0~F**
6. Scan **Save Configuration** from **8.2 Save & Abort**

## Intercharacter Delay

Example: to set Intercharacter Delay as 15ms

1. Scan **Set Intercharacter Delay**
2. Scan **1, 5** respectively from **8.1 Data 0~F**
3. Scan **Save Configuration** from **8.2 Save & Abort**

## Good Read LED Duration

Example: to set Good Read LED Duration as 200ms

1. Scan **Good Read LED Duration**
2. Scan **2, 0, 0** respectively from **8.1 Data 0~F**
3. Scan **Save Configuration** from **8.2 Save & Abort**

## Appendix E – Control Code Table

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

## Appendix F – Symbology Index Table

| Symbology            | Index |
|----------------------|-------|
| EAN-13               | 0x01  |
| EAN-8                | 0x02  |
| UPC-A                | 0x03  |
| UPC-E0               | 0x04  |
| UPC-E1               | 0x05  |
| Code128              | 0x06  |
| Code39               | 0x07  |
| Code93               | 0x08  |
| Codabar              | 0x09  |
| Interleaved 2/5      | 0x0A  |
| Industrial 2/5       | 0x0B  |
| Matrix 2/5           | 0x0C  |
| IATA 2/5             | 0x0D  |
| Code 11              | 0x0E  |
| MSI Plessey          | 0x0F  |
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| QR Code              | 0x1A  |
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| Data Matrix          | 0x1C  |
| Micro QR Code        | 0x1D  |
| MicroPDF417          | 0x1E  |
| Aztec                | 0x1F  |
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|                 |      |
|-----------------|------|
| HanXin          | 0x22 |
| DotCode         | 0x23 |
| All Symbologies | 0xFF |

## **Version History**

| Rev | Date       | Description     | Issued |
|-----|------------|-----------------|--------|
| 1.0 | 2023.02.01 | Initial Release | Shaw   |

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