



# RT218 OEM Barcode Scan Engine

## User Guide



## Roadmap

Version	Description	Date	Writer
V0.1	Add setting codes that part cannot identify, such as Length settings for CODE11 and MSI ,RSS switch	2015.05.26	
V0.2	1.Add the control of floodlight and positioning light 2.Communication mode: Add USB KBW and USB serial port 3.Trigger mode: Add automatic induction mode	2015.07.27	
V0.3	Add default configuration parameters (default configuration contains the default configuration 1 and 2)	2015.08.04	
V0.4	Add the difference between 1D and 2D software Overview: 1D does not support automatic induction mode 1D product does not support USB interface 1D product only has a floodlight	2015.10.14	
V0.5	Automatic induction mode adds higher sensitivity	2015.10.19	
V0.6	1D supports automatic induction mode	2015.12.02	
V0.7	Add five default configuration	2015.12.17	
V0.8	Add auto newline	2016.01.07	
V0.9	Add default configuration 3	2016.01.22	
V0.10	The version can output all product information by setting code	2016.01.27	
V0.11	1D has the function of identifying two barcodes at the same time.	2016.03.25	
V0.12	1.Add communication mode: Support AUTO UK and AUTO UV 2.DM adds the function of reading Multi-code mode	2016.05.06	
V0.13	Add 2D barcode Packet format description	2016.05.25	
V0.14	The version supports Aztec Code, Maxi Code and Han Xin Code	2016.06.07	
V0.15	Add default configuration 4	2016.06.17	
V1.0	Formal Version	2016.10.31	
V1.01	Add prompt switch. Add Matrix 25 and Standard 25.	2016.11.17	
V1.02	Add detailed SSI command	2017.02.21	
V1.03	Add new functions Modify some of the contents of the manual	2017.04.21	
V1.04	Add event report, wiegand, PS2, setting code password mode,disable passive trigger scanning, default configuration ,command table	2017.06.15	
V1.05	Add WAKEUP contents Add REQUEST_REVISION contents Delete default configuration 6-8	2017.06.28	
V1.06	Add ECI control of QR and DM Add logout password function	2017.07.20	
V1.07	Add invoice type Modify some mistakes	2017.08.16	
V1.08	Add input character set type Add output ctrl combination key	2017.09.01	

	Modify partial contents of table 4-3		
V1.09	<p>Add TTDATA, TTDATA+Serial Port  Add ASCII  Add Barcode Global Switch  Add SSI Command of Custom Beeper Sound  Add Terminator CR CR, CR LF CR LF  Add Quick Settings of Keyboard Output Time Interval  Add Button Continuous  Add Keyboard Type  Add Codabar Start Character and Terminator and Letter Case Setting of Start Character and Terminator  Add ISSN, PLESSEY  Table 1-11 adds AIM128, ISSN, PLESSEY  Code 39 adds Convert Code 39 to Code 32 (Italian Pharma Code) , Code 32 Prefix and Transport Start Character and Terminator.</p>	2017.11.23	
V1.10	<p>Modify 'transmit Code ID Character' content  Modify 'AIM code Identifiers' table</p>	2018.02.11	
V1.11	<p>Add RSS AI character, Code 39 bigcode, Bank code of Brazil, Read 1D inverse barcode  Add keyboard, AIM128, DEU14, DEU12, Code 128, UCC/EAN128, EAN-8, EAN-13, UPC-E, UPC-A, ITF14, NEC-25(COOP25), Discrete 2 of 5, Code 93, Codabar, Plessey, QR barcode new content</p>	2018.03.14	
V1.12	<p>Add communication mode HID POS, Disable KBW Function Key, Hide Custom Barcode Data, Fast Setting of Output Interval of The Same Code, UPC-E1, Decoding Light Control, Continuously Set Multiple Prefix and Suffix Modes, EAN-13 Transmit Check Digit, Heartbeat Control, "Check", "Slovakia" keyboard</p>	2018.06.28	
V1.13	<p>Supplement the content of Wiegand Protocol Type 、 Country/Language Keyboard 、 Decoding Light Control 、 Trigger Mode 、 Input Character Set Type; Add Wiegand Output Time Interval Setting 、 COMPOSITE 、 Duration in Scanning Quick Setting 、 Set Prefix and Suffix according to Barcode Type 、 ASCII Control Character Output Mode Selection 、 Beeper Type 、 Positioning light Flicker 、 EAN-8 Transmit Check Digit 、 Insert Custom Data; Modify UPC-E1 、 EAN-13 Transmit Check Digit 、 AIM128 、 I 2 of 5 Check Digit Verification; Delete Convert I 2 of 5 to EAN-13 、 Output Ctrl Combination Key 、 Disable KBW Function Key.</p>	2019.06.05	
V1.14	<p>Modify some typesetting issues. Add Beeper Mute Function 、 Input Character Set Type Function 、 Wiegand WG64 、 Code 32 Check Digit Verification 、 Transmit Code 32 Check Digit 、 Data bit 、 Continue Scanning 、 URL Blocking 、 Multi-country Common Function 、 Output CTRL+key combination, but not including the keys on the keyboard 、 RS485 Networking Function, all above functions.</p>	2020.07.13	

# Contents

Revision History .....	2
Contents .....	4
<b>1. SSI Commands .....</b>	<b>10</b>
CMD_ACK .....	11
CMD_NAK .....	11
DECODE_DATA .....	12
LED_OFF .....	13
LED_ON .....	14
PARAM_DEFAULTS .....	14
PARAM_REQUEST .....	15
PARAM_SEND .....	16
REPLY_REVISION .....	17
REQUEST_REVISION .....	17
SCAN_DISABLE .....	18
SCAN_ENABLE .....	18
SLEEP .....	19
START_DECODE .....	19
STOP_DECODE .....	20
WAKEUP .....	20
Power Modes .....	21
RESET .....	21
EVENT .....	22
<b>2. SSI Extended Command .....</b>	<b>22</b>
DECODE_DATA_TWO .....	23
<b>3. Parameter Configuration .....</b>	<b>24</b>
Set Default Parameter .....	42
Factory Default Configuration .....	42
Default Configuration1 .....	42
Default Configuration2 .....	43
Default Configuration3 .....	43
Default Configuration4 .....	43
Default Configuration5 .....	43
Output Product Information .....	43
Trigger Mode .....	44
Duration in Scanning .....	45
Quick Setting .....	45
Continuous Reading Interval .....	47
Output Interval of The Same Code .....	47
Fast Setting .....	48
Continue Scanning .....	49
Disable passive trigger scanning .....	49
Sensitivity Level .....	49
Custom Sensitivity .....	50
Stability of Induction Time .....	50
Communication Mode .....	51
Serial Parameters .....	53
Baud Rate .....	53
Data Bit .....	54
Parity .....	55
Stop Bit Select .....	56
Software Handshaking .....	56
Host Serial Response Time-out .....	56
Intercharacter Delay .....	57
Host Character Time-out .....	57

Keyboard .....	57
Country/Language Keyboard .....	57
Time interval that keyboard outputs character .....	63
Quick Settings of Keyboard Output Time Interval .....	63
Letter case conversion .....	63
Keyboard Type .....	64
Keyboard State Control .....	65
ASCII Control Character Output Mode Selection .....	65
Wiegand .....	66
Wiegand Protocol Type .....	66
Wiegand 26 Protocol Output Mode .....	67
Wiegand Output Time Interval Setting .....	68
PS2 Mode .....	68
RS485 Networking Function .....	68
Enable RS485 Networking Function .....	68
Modify 485 Device Slave Address .....	69
RS485 Networking Decoding Data Format .....	69
RS485 Networking Heartbeat Switch .....	69
Power Mode .....	70
Beeper .....	70
Beeper Volume .....	70
Beeper Type .....	71
Beep After Good Decode .....	71
Indicator Light Function .....	72
LED After Good Decode .....	72
Decode Indicator Control .....	72
Mute .....	73
Boot prompt .....	73
Setup Code Prompt .....	74
Floodlight Control .....	74
Positioning light .....	75
Positioning light control .....	75
Positioning light Flicker .....	75
Decode Data Packet Format .....	76
Transmit "No Read" Message .....	76
Transmit Code ID Character .....	76
Terminator .....	77
Prefix/Suffix .....	78
Prefix/Suffix Values .....	78
Continuously Set Multiple Prefix and Suffix Modes .....	79
Continuously Set Multiple Prefix .....	79
Continuously Set Multiple Suffix .....	79
Complete Continuous Setup of Multiple Prefixes / Suffixes .....	79
Exit Set Prefix or Suffix .....	80
Scan Data Transmission Format .....	80
STX and ETX Setting .....	82
Set Prefix and Suffix according to Barcode Type .....	82
Set Prefix according to Barcode Type .....	82
Set Suffix according to Barcode Type .....	83
Clear Prefix according to Barcode Type .....	83
Clear Suffix according to Barcode Type .....	83
Enable/Disable Prefix or Suffix .....	83
Hide Custom Barcode Data .....	84
Hide Head Data .....	84
Set the Length of the Hidden Head Data .....	84
Hide Intermediate Data .....	85
Set the Starting Position of Hiding the Intermediate Data .....	85
Set the Length of the Hidden Intermediate Data .....	85
Hide Tail Data .....	86

Set the Length of the Hidden Tail Data .....	86
Insert Custom Data .....	86
Enable/Disable Insert Custom Data .....	86
Set Position of the Inserted Data .....	87
Set Inserted Data .....	87
Exit Setting Custom Data .....	87
Output Character Set Type .....	87
Input Character Set Type .....	88
USB Type .....	90
Event Report .....	90
Boot Event .....	90
Trigger Event .....	90
Heartbeat Control .....	91
URL Blocking .....	92
Invoice Function .....	92
Automatic Filling of Value-added Tax Invoice .....	92
Invoice Type .....	93
Parameter Scanning .....	93
Send Setting Code .....	93
Setting Code Password Mode .....	94
Enable Setting Code Password Mode .....	94
Input Setting Code Password .....	94
Modify Setting Code Password .....	95
Logout Password .....	95
Linear Code Type Security Level .....	95
Linear Security Level 1 .....	95
Linear Security Level 2 .....	95
Linear Security Level 3 .....	96
Linear Security Level 4 .....	96
1D identifies two barcodes .....	96
1D Inverse Barcode Reading .....	96
Barcode Global Switch .....	97
1D Global Switch .....	97
2D Global Switch .....	97
All Barcode Switch .....	97
UPC-A .....	99
Enable/Disable UPC-A .....	99
UPC-A Preamble .....	99
Transmit UPC-A Check Digit .....	100
UPC-A 2-bits Supplementals .....	100
UPC-A 5-bits Supplementals .....	100
UPC-A Read Supplementals .....	101
UPC-E .....	101
Enable/Disable UPC-E .....	101
UPC-E Preamble .....	101
Transmit UPC-E Check Digit .....	102
Convert UPC-E to UPC-A .....	102
UPC-E 2-bits Supplementals .....	103
UPC-E 5-bits Supplementals .....	103
UPC-E Read Supplementals .....	103
UPC-E1 .....	104
EAN-8 .....	104
Enable/Disable EAN-8 .....	104
EAN-8 Zero Extend .....	104
EAN-8 2-bits Supplementals .....	105
EAN-8 5-bits Supplementals .....	105
EAN-8 Read Supplementals .....	105
EAN-8 Transmit Check Digit .....	106
EAN-13 .....	106

Enable/Disable EAN-13.....	106
EAN-13 2-bits Supplementals.....	107
EAN-13 5-bits Supplementals.....	107
EAN-13 Read Supplementals.....	107
EAN-13 Transmit Check Digit.....	108
Enable/Disable Bookland EAN(ISBN).....	108
Bookland ISBN Format.....	108
Decode UPC/EAN Supplementals.....	109
UPC/EAN Security Level.....	110
Code 128.....	110
Enable/Disable Code 128.....	111
Transmit Check Digit.....	111
Set Lengths for Code 128.....	111
GS1-128 (formerly UCC/EAN-128).....	112
Enable/Disable GS1-128 (formerly UCC/EAN-128).....	112
UCC/EAN-128 Transmit Check Digit.....	112
Set Lengths for UCC/EAN-128.....	113
ISBT 128.....	113
Code 39.....	113
Enable/Disable Code 39.....	113
Set Lengths for Code 39.....	114
Code 39 Check Digit Verification.....	115
Transmit Code 39 Check Digit.....	115
Enable/Disable Code 39 Full ASCII.....	115
Code 39 Transport Start Character and Terminator.....	116
Code 39 bigcode.....	116
Convert Code 39 to Code 32 (Italian Pharma Code).....	117
Code 32 Prefix.....	117
Code 32 Check Digit Verification.....	117
Transmit Code 32 Check Digit.....	118
Code 93.....	118
Enable/Disable Code 93.....	118
Set Lengths for Code 93.....	118
Code 93 Check.....	119
Transmit Code 93 Check Digit.....	120
Code 11.....	120
Enable/Disable Code 11.....	120
Set Lengths for Code 11.....	120
Code 11 Check Digit Verification.....	121
Transmit Code 11 Check Digit.....	122
Interleaved 2 of 5/ITF/交叉 25 码.....	122
Enable/Disable Interleaved 2 of 5.....	122
Set Lengths for Interleaved 2 of 5.....	123
I 2 of 5 Check Digit Verification.....	123
Transmit I 2 of 5 Check Digit.....	124
ITF14.....	124
Transmit ITF14 Check Digit.....	125
Discrete 2 of 5/Industrial 2 of 5/IND25/工业 25 码.....	125
Enable/Disable Discrete 2 of 5.....	125
Set Lengths for Discrete 2 of 5.....	125
Discrete 2 of 5 Check.....	126
Transmit Discrete 2 of 5 Check Digit.....	126
Matrix 25.....	127
Enable/Disable Matrix 25.....	127
Matrix 25 Check Digit Verification.....	127
Transmit Matrix 25 Check Digit.....	128
Set Lengths for Matrix 25.....	128
Standard 25/IATA 25(标准 25).....	129
Enable/Disable Standard 25.....	129

Standard 25 Check Digit Verification .....	129
Transmit Check Digit .....	129
Set Lengths for Standard 25 .....	130
Codabar .....	131
Enable/Disable Codabar .....	131
Set Lengths for Codabar .....	131
Codabar Check .....	132
Transmit Codabar Check Digit .....	132
NOTIS Editing .....	133
Start Character and Terminator .....	133
Letter Case Setting of Start Character and Terminator .....	133
MSI/MSI PLESSEY .....	134
Enable/Disable MSI .....	134
Set Lengths for MSI .....	134
MSI Check Digits .....	135
Transmit MSI Check Digit .....	135
MSI Check Digit Algorithm .....	136
GS1 DataBar/RSS .....	136
Enable/Disable GS1 DataBar-14 .....	136
Enable/Disable GS1 DataBar Limited .....	136
Enable/Disable GS1 DataBar Expanded .....	137
RSS AI Character .....	137
PDF417 .....	138
Enable/Disable PDF417 .....	138
Read Multi-code .....	138
Read Normal Phase/ Phase Reversal .....	138
QR .....	139
Enable/Disable QR .....	139
Read Multi-code .....	139
ECI Control .....	140
QR Read Normal Phase/ Phase Reversal .....	140
Data Matrix(DM) .....	141
Enable/Disable Data Matrix(DM) .....	141
Read Multi-code .....	141
Read Normal Phase/ Phase Reversal .....	142
ECI Control .....	142
Maxi Code .....	143
Enable/Disable Maxi Code .....	143
Aztec Code .....	143
Enable/Disable Aztec Code .....	143
Han Xin Code .....	143
Enable/Disable Han Xin Code .....	143
Read Multi-code .....	144
Read Normal Phase/ Phase Reversal .....	144
ISSN .....	145
PLESSEY .....	145
PLESSEY .....	145
PLESSEY Check .....	146
Transmit PLESSEY Check Digit .....	146
AIM128 .....	146
AIM128 .....	146
Transmit AIM128 Check Digit .....	147
Set Lengths for AIM128 .....	147
DEU14 .....	148
DEU14 .....	148
Transmit DEU14 Check Digit .....	148
DEU12 .....	148
DEU12 .....	148
Transmit DEU12 Check Digit .....	149



NEC-25(COOP25) .....	149
NEC-25(COOP25) .....	149
NEC-25(COOP25) Check.....	150
Transmit NEC-25(COOP25) Check Digit .....	150
Set Lengths for NEC-25(COOP 25).....	150
Brazilian Bank Code .....	151
COMPOSITE .....	151
Enable/Disable COMPOSITE .....	151
EAN/UCC .....	152
Enable/Disable EAN/UCC .....	152
<b>4. Appendix.....</b>	<b>153</b>
Numeric Barcodes.....	153
Cancel.....	154
Setting Code Lengths Via Serial Commands.....	154
Character Comparison Table .....	155
Code ID.....	161
AIM Code Identifiers .....	162
Parameter Command .....	163

# 1. SSI Commands

**Table 1-1 SSI Commands**

Name	Type	Opcode	Description	Support
CMD_ACK	H/D	0xD0	Effective response	Yes
CMD_NAK	H/D	0xD1	Invalid response	Yes
DECODE_DATA	D	0xF3	Decode data(only for 1D barcode)	Yes
LED_OFF	H	0xE8	Close LED	Yes
LED_ON	H	0xE7	Open LED	Yes
PARAM_DEFAULTS	H	0xC8	Restore default parameters of the SE series	Yes
PARAM_REQUEST	H	0xC7	Request one parameter of the SE series	Yes
PARAM_SEND	H/D	0xC6	Send one parameter of the SE series	Yes
REQUEST_REVISION	H	0xA3	Request the engine's software version message	Yes
REPLY_REVISION	D	0xA4	Reply the engine's software version message	Yes
SCAN_DISABLE	H	0xEA	Disable scanning	Yes
SCAN_ENABLE	H	0xE9	Enable scanning	Yes
SLEEP	H	0xEB	Sleep state	Yes
START_DECODE	H	0xE4	Start decoding	Yes
STOP_DECODE	H	0xE5	Start decoding	Yes
WAKEUP	H	N/A	Wakeup	Yes
RESET	H	0xFA	Reset	Yes
EVENT	D	0xF6	Event indicated by associated event code	Yes

*Table 1-2* shows the general packet format for SSI messages, and *Table 1-3* lists the descriptions of fields that occur in all messages. These descriptions are repeated for each Opcode in the SSI message formats section. For messages that use the *Data* field, the specific type of data is shown in that field.

**Table 1-2 General Packet Format**

Length	Opcode	Message Source	Status	Data	Checksum
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**Table 1-3 Field Descriptions**

Field Name	Format	Sub-Field	Meaning
Length	1 Byte	Length	Length of message not including the checksum bytes. Maximum value is 0xFF.
Opcode	1 Byte	See <i>Table 1-1</i> for details.	Identifies the type of packet data being sent.
Message Source	1 Byte	0 = Scan engine 04 = Host	Identifies where the message is coming from.
Status	Bit 0	Retransmit	0 = First time packet is sent 1 = Subsequent transmission Attempts
	Bit 1	Reserved	Always set to zero
	Bit 2	Reserved	Always set to zero
	Bit 3	Change Type (applies to parameters)	0 = Temporary change 1 = Permanent change
	Bits 4 – 7		Unused bits must be set to 0.
Data	Variable number of bytes	See individual sections for details.	

Checksum	2 Bytes	2's complement sum of message contents excluding checksum.	Checksum of message formatted as HIGH BYTE LOW BYTE, HIGH BYTE is in front.
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Note: The checksum is a 2 byte checksum and must be sent as HIGH BYTE followed by LOW BYTE.

## CMD\_ACK

**Description: Positive acknowledgment of received packet**

**Table 1-4 Packet Format**

Length	Opcode	Message Source	Status	Data	Checksum
0x04	0xD0				

**Table 1-5 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message(not including checksum)	1 Byte	Length Field
Opcode	0xD0	1 Byte	Identifies this Opcode type
Message Source	0 = Scan engine 4 = Host	1 Byte	Identifies where the message is coming from.
Status	Bit 0: Retransmit Bit 1-7: unused	1 Byte	Identifies the transmission status All unused bits must be set to 0
Data			None
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message

This message is sent to the SSI packet transmitter when the received packet passes the checksum check and no negative acknowledgment conditions apply (see CMD\_NAK). If the data is in response to a command (e.g., PARAM\_REQUEST, REQUEST\_REVISION, etc.), no ACK is sent.

**NOTE** :ACK/NAK handshaking can be disabled, but this is not recommended.

It is not necessary to respond to a valid ACK or NAK message.

### Host Requirements

The scan engine must send a CMD\_ACK or response data within the programmable Serial Response Time-out to acknowledge receipt of all messages, unless noted otherwise in the message description section. If the host sends data and does not receive a response within the programmable serial response time-out, it resends the message (with the retransmit status bit set) before declaring a failure. The host should limit the number of retries.

### Scan Engine Requirements

The scan engine must send a CMD\_ACK or response data within the programmable Serial Response Time-out to acknowledge receipt of all messages, unless noted otherwise in the message description section. If the scan engine does not receive an ACK within this time period, it sends the previous message again. The scan engine retries twice more (with the retransmit status bit set) before declaring a transmit error.

## CMD\_NAK

**Description: Negative acknowledgment of received packet**

**Table 1-6 Packet Format**

Length	Opcode	Message Source	Status	Cause	Checksum
0x05	0xD1				

**Table 1-7 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum).	1 Byte	Length Field
Opcode	0xD1	1 Byte	Identifies this Opcode type.
Message Source	4 = Host 0 = Scan engine	1 Byte	Identifies where the message is coming from.
Status	Bit 0: Retransmit	1 Byte	Identifies the transmission status. Unused

	Bit 1-7: unused		bits must be set to 0.
Cause	Reason code	1 Byte	Identifies the reason the NAK occurred: 0=Reserved 1=(RESEND) Checksum failure 2= (BAD_CONTEXT) Unexpected or Unknown message 3= Reserved 4= Reserved 5= Reserved 6= (DENIED) Host Directive Denied 7= Reserved 8= Reserved 9= Reserved
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message.

This message is sent when the received packet fails the checksum verification or some error occurred while handling the message.

**NOTE** :ACK/NAK handshaking can be disabled, but this is not recommended.

It is not necessary to respond to a valid ACK or NAK message.

[Table 1-8](#) describes NAK types supported by the scan engine.

**Table 1-8 Scan engine-Supported NAK Types**

NAK Type	Meaning	Receiver Action
NAK_RESEND	Checksum incorrect.	Ensure checksum is correct. Limit number of resends. Send packet again with resend bit set.
NAK_DENIED	Host is unable to comply with the requested message(e.g., beep code is out of range).	Do not send data with this message again. Developer should check values with specified values. Developer should ensure the proper character is sent, if using wake-up character.
NAK_BAD_CONTEXT	Host does not recognize the command.	

The scan engine only resends a message twice. If the message is not sent successfully either time, the scan engine declares a transmit error and issues transmit error beeps (LO-LO-LO-LO).

Do not send data with this message again. Developer should check values with specified values. Developer should ensure the proper character is sent, if using wake-up character.

## DECODE\_DATA

**Description: Decode data in SSI packet format**

**Table 1-9 Packet Format**

Length	Opcode	Message Source	Status	Barcode Type	Decode Data	Checksum
	0xF3	0x00				

**Table 1-10 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum).	1 Byte	Length Field
Opcode	0xF3	1 Byte	Identifies this Opcode type.
Message Source	0 = Scan engine	1 Byte	Identifies where the message is coming from
Status	Bits 1-7: unused Bit 0: Retransmit	1 Byte	Identifies the transmission status. Unused bits must be set to 0.
Barcode Type	See <a href="#">Table 1-11</a>	1 Byte	Identifies the scanned data code type.
Decode Data	<data>	Variable	Data is decoded data including prefix and suffix sent in ASCII format.
Checksum	2's complement sum of message contents excluding checksum.	2 Bytes	Checksum of message.

The scan engine uses this opcode when packeted data is selected to send decoded barcode data to the host. The decoded message is contained in the Decode Data field.

*Table 1-11* lists all scan engine supported code types. The associated hex value for each code (as required) is entered in the Code Type field.

**Table 1-11 Supported Code Types**

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

**Host Requirements**

If ACK/NAK handshaking is enabled, the host responds to each of these messages.

**Scan Engine Requirements**

Decode data is sent in this format if packeted decode data is selected via parameter. The host responds to this message with a CMD\_ACK, if ACK/NAK handshaking is enabled.

**LED\_OFF**

**Description: De-activate LED output**

**Table 1-12 Packet Format**

Length	Opcode	Message Source	Status	LED Selection	Checksum
0x05	0xE8	0x04		0x01	

**Table 1-13 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum)	1 Byte	Length field
Opcode	0xE8	1 Byte	Identifies this Opcode type
Message Source	4 = Host	1 Byte	Identifies where the message is coming from
Status	Bit 0: Retransmit Bit 1-7: Unused	1 Byte	Identifies the transmission status. Unused bits must be set to 0
LED Selection	Bit 0 - 7: LED bit numbers to turn off	1 Byte	Bit 0 = decode LED All other bits should be set to 0
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message

The host sends this message to turn off the decode LED.

**Host Requirements**

None.

**Scan Engine Requirements**

The scan engine turns off the decode LED.

## LED\_ON

**Description: Activate LED output**

**Table 1-14 Packet Format**

Length	Opcode	Message Source	Status	LED Selection	Checksum
0x05	0xE7	0x04		0x01	

**Table 1-15 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum)	1 Byte	Length field
Opcode	0xE7	1 Byte	Identifies this Opcode type
Message Source	4 = Host	1 Byte	Identifies where the message is coming from
Status	Bit 0: Retransmit Bit 1-7: Unused	1 Byte	Identifies the transmission status. Unused bits must be set to 0
LED Selection	Bit 0 - 7: LED bit numbers to turn on	1 Byte	Bit 0 = decode LED All other bits should be set to 0
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message

The host sends this message to turn on the decode LED.

**Host Requirements**

None.

**Scan Engine Requirements**

The scan engine turns on the decode LED.

## PARAM\_DEFAULTS

**Description: Sets the parameters to their factory default values**

**Table 1-16 Packet Format**

Length	Opcode	Message Source	Status	Checksum
0x04	0xC8	0x04		

**Table 1-17 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum)	1 Byte	Length field
Opcode	0xC8	1 Byte	Identifies this Opcode type
Message Source	4 = Host	1 Byte	Identifies where the message is coming from
Status	Bit 0: Retransmit Bit 1-7: Unused	1 Byte	Identifies the transmission status Unused bits must be set to 0
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message

This command returns all parameters to their factory default settings.

**Host Requirements**

The host sends this command to reset the scan engines parameter settings to the factory default values.

**Scan Engine Requirements**

Upon receiving this command, the scan engine resets all its parameters to the factory default values. The behavior is the same as scanning a **Set Factory Defaults** barcode.

**Recommendations**

When setting parameters via SSI with the permanent flag set, the following conditions must be met:

- The system must have stable power applied to the scan engine.
- The scan engine and host must be operating and communicating with no interference.
- Power must be maintained for at least two seconds after sending the command or scanning the parameter barcode.

Failure to meet these conditions can corrupt the scan engine's memory.

## PARAM\_REQUEST

**Description: Request values of selected parameters**

**Table 1-18 Packet Format**

Length	Opcode	Message Source	Status	Request Data	Checksum
	0xC7	0x04			

**Table 1-19 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum)	1 Byte	Length field
Opcode	0xC7	1 Byte	Identifies this Opcode type
Message Source	4 = Host	1 Byte	Identifies where the message is coming from
Status	Bit 0: Retransmit Bit 1-7: Unused	1 Byte	Identifies the transmission status Unused bits must be set to 0
Request Data	<Param_num><Param_num> <Param_num>...	Variable	
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message

The host uses this message to request selected parameters from the scan engine.

**Host Requirements**

The host requests the scan engine's current values for specific parameters by listing the parameter numbers in the Request\_Data field. If the host asks for a parameter value not supported by the scan engine, the scan engine does not send a value for this unsupported param\_num. If none of the requested values is supported, the scan engine transmits an empty PARAM\_SEND message. If the host requests the value of all the parameters, it sends a special param\_num called ALL\_PARAMS (0xFE) in the first position of the Request\_Data field.

**NOTE:** The scan engine's response to this command is PARAM\_SEND, not ACK. Depending on the time-out set, and the number of parameters requested, this reply may fall outside the programmable Serial Response Time-out. If this occurs, this is not a time-out error. To compensate, increase the time-out.

**Scan Engine Requirements**

When the scan engine receives this message, it processes the information by formatting a PARAM\_SEND message containing all requested parameters supported and their values. The programmable Serial Response Time-out can be exceeded when processing this message, depending on the time-out set and the number of parameters requested.

**Hints for requesting parameter values**

Before forming a PARAM\_REQUEST, confirm that the scan engine supports the requested parameters. To find out what parameters are supported, send an 0xFE (request all parameters). The response to this is a PARAM\_SEND which contains all the supported parameters and their values. 0xFE must be in the first position of the request\_data field if used, or it is treated as an unsupported parameter.

Unsupported parameters are not listed in the PARAM\_SEND response. Requesting unsupported parameters has no effect, but can cause delays in responding to requests for valid parameters. See [Table 1-20](#) for example requests and responses.

**Table 1-20 Example Requests and Replies**

	PARAM_REQUEST message	Response PARAM_SEND message
#ALL	05 C7 04 00 FE FE 32	0D C6 00 00 FF 01 00 02 01 9C 07 E6 63 FC 3E
#1, 9C	06 C7 04 00 01 9C FE 92	09 C6 00 00 FF 01 00 9C 07 FD 8E
#All, 1, 9C	07 C7 04 00 FE 01 9C FD 93	0D C6 00 00 FF 01 00 02 01 9C 07 E6 63 FC 3E
#1, 9C, ALL	07 C7 04 00 01 9C FE FD 93	09 C6 00 00 FF 01 00 9C 07 FD 8E
#4	05 C7 04 00 04 FF 2C	05 C6 00 00 FF FE 36
#ALL - 3 times	07 C7 04 00 FE FE FE FC 34	0D C6 00 00 FF 01 00 02 01 9C 07 E6 63 FC 3E
#1 -3 times	07 C7 04 00 01 01 01 FF 2B	0B C6 00 00 FF 01 00 01 00 01 00 FE 2D

## PARAM\_SEND

**Description:** Respond to a PARAM\_REQUEST, change particular parameter values

**Table 1-21 Packet Format**

Length	Opcode	Message Source	Status	Beep Code	Param data	Checksum
	0xC6					

**Table 1-22 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum)	1 Byte	Length field
Opcode	0xC6	1 Byte	Identifies this Opcode type
Message Source	0 = Scan engine 4 = Host	1 Byte	Identifies where the message is coming from
Status	Bit 0: Retransmit Bits 1, 2: Unused Bit 3: Change Type Bits 4-7: Unused	1 Byte	Bit 0: 1= Retransmit Bit 3: 1 = Permanent change 0 =Temporary change - lost when power removed Unused bits must be set to 0
Beep code		1 Byte	If no beep is required, set this field to 0xFF
Param_data	See <a href="#">Table 3-1</a>		The parameter numbers and data to be sent to the requester
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message

This message is sent by the scan engine in response to the PARAM\_REQUEST message, or by the host to change the scan engine's parameter values.

Parameter numbers 0xF0 (+256), 0xF1 (+512), 0xF2 (+768) are used to access parameters whose numbers are 256 and higher. For example, to access the first parameter in the 256-511 range, use 0xF0 and 0x00.

### Host Requirements

The host transmits this message to change the scan engine's parameters. Be sure the Change Type bit in the Status byte is set as desired. If no beep is required, the beep code must be set to 0xFF.

**NOTE:** Due to the processing time of interpreting and storing parameters contained in the message, the scan engine may not be able to send an ACK within the programmable Serial Response time-out. This is not an error; to compensate, increase the time-out.

### Scan Engine Requirements

When the scan engine receives a PARAM\_SEND, it interprets and stores the parameters, then send ACKs command (if ACK/NAK handshaking is enabled). These parameters are stored permanently only if the Change Type (bit 3 of the Status byte) is set to 1. If bit 3 is set to 0 the changes are temporary, and are lost when the scan engine is powered down.

If the PARAM\_SEND is sent by the host contains a valid beep code, the scan engine issues the requested beep sequence, and changes the requested parameter values.

The scan engine issues a PARAM\_SEND in response to a PARAM\_REQUEST from the host. It responds to the PARAM\_REQUEST message by sending all supported parameter values. No value is sent for any unsupported param\_num. If none of the requested values is supported, the PARAM\_SEND message is



transmitted with no parameters. When sending this command, the Change Type bit (bit 3 of Status byte) can be ignored.

**Recommendations**

When setting parameters via SSI with the permanent flag set, the following conditions must be met:

- The system must have stable power applied to the scan engine.
- The engine and host must be operating and communicating with no interference.
- Power must be maintained for at least two seconds after sending the command or scanning the parameter barcode.

Failure to meet these conditions can corrupt the scan engine's memory.

## REPLY\_REVISION

**Description:** Reply to REQUEST\_REVISION command with software revision string

**Table 1-23 Packet Format**

Length	Opcode	Message Source	Status	Revision	Checksum
	0xA4	0x00			

**Table 1-24 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum)	1 Byte	Length field
Opcode	0xA4	1 Byte	Identifies this Opcode type
Message Source	0 = Scan engine	1 Byte	Identifies where the message is coming from
Status	Bit 0: Retransmit Bit 1-7: Unused	1 Byte	Identifies the transmission status Unused bits must be set to 0
Revision	ASCII data	variable	Software revision in ASCII (see format below)
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message

**Host Requirements**

None.

**Scan Engine Requirements**

The scan engine sends its revision string to the host in the following format:

Product Name <space> Product ID <space> Hardware version <space> Firmware version

Product Name corresponds to the scan engine product name.

Product ID is the only ID of the product.

The hardware version of the scan engine, version format is 1.1.3.

The firmware version of the scan engine, version format is 1.1.3.

## REQUEST\_REVISION

**Description:** Request the software revision string from the scan engine

**Table 1-25 Packet Format**

Length	Opcode	Message Source	Status	Data	Checksum
0x04	0xA3	0x04			

**Table 1-26 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum)	1 Byte	Length field
Opcode	0xA3	1 Byte	Identifies this Opcode type
Message Source	4 = Host	1 Byte	Identifies where the message is coming from
Status	Bit 0: Retransmit Bit 1-7: Unused	1 Byte	Identifies the transmission status Unused bits must be set to 0

Data			None
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message

### Host Requirements

The host sends this message to request revision information from the scan engine. The scan engine responds with `REPLY_REVISION`.

### Scan Engine Requirements

The scan engine sends its revision string to the host. See [REPLY\\_REVISION](#) for format.

### NOTE:

Sleep Mode: Send 0x00, delay 50ms once. Then send the query command. There is still no data if waiting for 600ms, you should repeat the above process three times.

Normal Mode: Send the query command. There is still no data if waiting for 600ms, you should repeat the above process three times.

## SCAN\_DISABLE

**Description: Prevent the scan engine from scanning barcodes**

**Table 1-27 Packet Format**

Length	Opcode	Message Source	Status	Data	Checksum
0x04	0xEA	0x04			

**Table 1-28 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum)	1 Byte	Length field
Opcode	0xEA	1 Byte	Identifies this Opcode type
Message Source	4 = Host	1 Byte	Identifies where the message is coming from
Status	Bit 0: Retransmit Bit 1-7: Unused	1 Byte	Identifies the transmission status Unused bits must be set to 0
Data			None
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message

### Host Requirements

All scan attempts are disabled by this command until either a `SCAN_ENABLE` is sent, or the scan engine is reset.

### Scan Engine Requirements

When the scan engine receives this command, it ignores all trigger/`START_DECODE` requests until a `SCAN_ENABLE` command is received.

## SCAN\_ENABLE

**Description: Permit the scan engine to scan barcodes**

**Table 1-29 Packet Format**

Length	Opcode	Message Source	Status	Data	Checksum
0x04	0xE9	0x04			

**Table 1-30 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum)	1 Byte	Length field
Opcode	0xE9	1 Byte	Identifies this Opcode type
Message Source	4 = Host	1 Byte	Identifies where the message is coming from
Status	Bit 0: Retransmit Bit 1-7: Unused	1 Byte	Identifies the transmission status Unused bits must be set to 0

Data			None
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message

### Host Requirements

The host sends the SCAN\_ENABLE command to enable scanning in the scan engine. Scanning is enabled upon power-up, so this command need only be sent if a prior SCAN\_DISABLE command was sent.

### Scan Engine Requirements

The scan engine allows scanning and decoding upon receipt of this command.

**NOTE** :At initial power-up, the scan engine assumes SCAN\_ENABLED.

## SLEEP

**Description:** Request to place the scan engine into Sleep power state

**Table 1-31 Packet Format**

Length	Opcode	Message Source	Status	Data	Checksum
0x04	0xEB	0x04			

**Table 1-32 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum)	1 Byte	Length field
Opcode	0xEB	1 Byte	Identifies this Opcode type
Message Source	4 = Host	1 Byte	Identifies where the message is coming from
Status	Bit 0: Retransmit Bit 1-7: Unused	1 Byte	Identifies the transmission status Unused bits must be set to 0
Data			None
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message

### Host Requirements

The host sends this command to place the scan engine into Sleep power state. If the low power mode parameter is enabled, the scan engine goes into Sleep power state automatically, and the SLEEP command is not necessary.

**NOTE** :The scan engine does not sleep immediately upon acknowledging the command if it is processing data when the SLEEP command is sent.

### Scan Engine Requirements

None.

## START\_DECODE

**Description:** Tell scan engine to attempt to decode a barcode

**Table 1-33 Packet Format**

Length	Opcode	Message Source	Status	Data	Checksum
0x04	0xE4	0x04			

**Table 1-34 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum)	1 Byte	Length field
Opcode	0xE4	1 Byte	Identifies this Opcode type
Message Source	4 = Host	1 Byte	Identifies where the message is coming from
Status	Bit 0: Retransmit Bit 1-7: Unused	1 Byte	Identifies the transmission status Unused bits must be set to 0
Data			None
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message

contents excluding checksum

This command tells the scan engine to start a scan and decode session. The decode session ends with a successful decode, a scan session time-out, or a STOP\_DECODE command.

#### Host Requirements

If the TRIGGER\_MODE parameter is set to HOST, the host can use this command instead of a trigger pull.

#### Scan Engine Requirements

None.

## STOP\_DECODE

**Description:** Tell scan engine to abort a decode attempt

**Table 1-35 Packet Format**

Length	Opcode	Message Source	Status	Data	Checksum
0x04	0xE5	0x04			

**Table 1-36 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum)	1 Byte	Length field
Opcode	0xE5	1 Byte	Identifies this Opcode type
Message Source	4 = Host	1 Byte	Identifies where the message is coming from
Status	Bit 0: Retransmit Bit 1-7: Unused	1 Byte	Identifies the transmission status Unused bits must be set to 0
Data			None
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message

This command tells the scan engine to stop a scan and decode attempt.

#### Host Requirements

The TRIGGER\_MODE parameter must be set to HOST.

#### Scan Engine Requirements

None.

## WAKEUP

**Description:** Wakeup scan engine after it's been put into Sleep power state

If the scan engine is in Sleep power state, sending the single character, **NULL** (0x00) wakes up the scan engine. This character is only needed when hardware handshaking is not used or is bypassed. (See [Power Management](#))

Scan engine goes into sleep after 800ms no operation. Sending command in sleep mode should be recording to the below operation: Send 0x00, delay 50ms. Then send valid command.

#### Power Management

The scan engine has two power states (Awake and Sleep) and two power modes (Continuous Power and Low Power).

#### Power States

WAKEUP and SLEEP commands (see [WAKEUP](#) and [SLEEP](#)), are sent to the scan engine to set the Power state to Awake or Sleep. The Low Power mode has an automatic timer that puts the unit into the Sleep state after a specified period of time.

When the scan engine is in the Sleep power state, the PWRDWN signal (see [Table 1-37](#)) is asserted. The host uses this signal to remove power from the scan engine. Do not remove power without using this signal since the PWRDWN signal is the only indication if the scan engine is not transmitting, receiving, decoding, or writing data to non-volatile memory.

**Table 1-37 Electrical Interface**

Mnemonic	Pin No.	Type	Description
VCC	2	PWR	Power Supply: 3.3 VDC

GND	3	PWR	Ground
AIM/WAKE*	11	I	<b>Wake Up:</b> When the scan engine is in low power mode, pulsing this pin low for 200 nsec awakens the scan engine. <b>AIM:</b> This pin provides a hard wired trigger line that creates an AIM pattern (a spot). This spot allows positioning the barcode and laser beam alignment to maximize the scan capability of the scan engine. Aim mode is not supported on the scan engine-E100R.
FLASH_DWLD*	1	I	<b>Flash Down Load:</b> Do not drive high. Pull low for download.
RXD	4	I	<b>Received Data:</b> Serial input port.
CTS*	6	I	<b>Clear to Send:</b> Serial port handshaking line.
TRIG*	12	I	<b>Trigger:</b> Hardware triggering line. Driving this pin low causes the scan engine to start a scan and decode session.
TXD	5	O	<b>Transmitted Data:</b> Serial output port.
RTS*	7	O	<b>Request to Send:</b> Serial port handshaking line.
PWRDWN	8	O	<b>Power Down Ready:</b> When high, the scan engine is in low power mode.
BPR*	9	O	<b>Beeper:</b> Low current beeper output.
DLED*	10	O	<b>Decode LED:</b> Low current decode LED output.

## Power Modes

Power modes are controlled by the Power Mode parameter (see [Power Mode](#) ).

In Continuous Power mode, the scan engine remains in the Awake state after each decode attempt. The Continuous Power mode parameter (see [Power Mode](#) ) sets the scan engine to remain in the Awake power state unless it receives a SLEEP command. In this mode, the scan engine can switch power states using the SLEEP and WAKEUP commands (see [SLEEP](#) and [WAKEUP](#) ); automatic power state switching is not supported.

In Low Power mode, the scan engine enters into a low power consumption Sleep state whenever possible (provided all WAKEUP commands were released), drawing less current than in Continuous Power mode. This makes the Low Power mode more suitable for battery powered applications. The Low Power mode also allows the scan engine to switch power states using the SLEEP and WAKEUP commands (see [SLEEP](#) and [WAKEUP](#) ). The scan engine must be awakened from the Sleep power state before performing any functions.

### Host Requirements

Once the WAKEUP command is sent, the host must wait at least 10 msec, but less than 1 second before sending additional data, since the scan engine is required to wait 1 second after waking up before going back to sleep (if low power mode is enabled).

### Scan Engine Requirements

The scan engine must not return to low power mode for at least 1 second after waking up.

**NOTE :** The mechanism to wake up a scan engine in this manner also works if characters other than WAKEUP are sent to the scan engine. There is, however, no guarantee that these commands are interpreted correctly upon power-up. Therefore, it is not recommended that characters other than WAKEUP be used to awaken the scan engine.

The WAKEUP character has no effect if sent when the scan engine is awake. If the host is unsure of the scan engine power state, it can send the wakeup character anytime it wants to communicate with the scan engine.

## RESET

**Description: Reset scan engine**

**Table 1-38 Packet Format**

Length	Opcode	Message Source	Status	Data	Checksum
0x04	0xFA	0x04			

**Table 1-39 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum)	1 Byte	Length field
Opcode	0xE5	1 Byte	Identifies this Opcode type

Message Source	4 = Host	1 Byte	Identifies where the message is coming from
Status	Bit 0: Retransmit Bit 1-7: Unused	1 Byte	Identifies the transmission status Unused bits must be set to 0
Data			None
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message

**Host Requirements**

Send 0xFA command.

**Scan Engine Requirements**

Which the scan engine replies ACK indicates reset.

**EVENT**

**Description: Indicate selected events occurred**

**Table 1-40 Packet Format**

Length	Opcode	Message Source	Status	Event Code	Checksum
0x05	0xF6	0x00			

**Table 1-41 Field Descriptions**

Field Name	Format	Size	Description
Length	Length of message (not including checksum)	1 Byte	Length field
Opcode	0xF6	1 Byte	Identifies this Opcode type
Message Source	0 = Decoder	1 Byte	Identifies where the message is coming from
Status	Bit 0: Retransmit Bit 1-7: Unused	1 Byte	Identifies the transmission status Unused bits must be set to 0
Event Code	Type of Event Code	1 Byte	See <a href="#">Table 1-42</a>
Checksum	2's complement sum of message contents excluding checksum	2 Bytes	Checksum of message

**Host Requirements**

The host receives this message when a selected event occurs.

**Decoder Requirements**

Generate this message when a selected event occurs

The command does not require the host to reply to the ACK. Specific event switch refers to Event Report

**Table 1-42 Event Codes**

Event Class	Event	Code Reported
Boot Up Event	Scan engine completes power on	0x01
Trigger Event	Scan engine triggers to read	0x02

**2. SSI Extended Command**

**Table 2-1 SSI Extended Command**

Name	Type	Opcode	Description	Support
DECODE_DATA_TWO	D	0xF4	Decode data (only for 2D barcode )	Yes
CFG_PARAM_SEND	H/D	0xFC	Send configuration parameters (extended command format )	Yes
CFG_PARAM_REQUEST	H	0xFD	Request configuration parameters (extended command format )	Yes

**Table 2-2 General Packet Format**

Length 1	Opcode1	Length 2 High Byte	Length 2 Low byte	Opcode 2	Message Source	Status	Data	High 8-bit Check	Low 8-bit Check
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255 is the maximum data length that SSI command supports, so SSI extended command is needed

Description:

Length 1: Always 0xFF

Length 2: Length does not include 2 bytes of check digit

Opcode1: Opcode 1 is the same as Opcode 2

More information refers to SSI Command.

**Table 2-3 Field Descriptions**

Field Name	Format	Sub-Field	Meaning
Length1	1 Byte	Length1	Length1 is 0xFF
Opcode1	1 Byte	See <a href="#">Table 2-1</a> for details.	Identifies the type of packet data being sent.
Length2	2 Bytes	Packet length	Length2 has two bytes, high 8 bits in front ,low 8 bits at the back.
Opcode2	1 Byte	See <a href="#">Table 2-1</a> for details.	The same as opcode1
Message Source	1 Byte	0 = Scan engine 04 = Host	Identifies where the message is coming from.
Status	Bit 0	Retransmit	0 = First time packet is sent 1 = Subsequent transmission attempts
	Bit 1	Reserved	Always set to zero
	Bit 2	Reserved	Always set to zero
	Bit 3	Change Type (applies to parameters)	0 = Temporary change 1 = Permanent change
	Bits 4 – 7		Unused bits must be set to 0.
Data	Variable number of bytes	See individual sections for details.	
Checksum	2 Bytes	2's complement sum of message contents excluding checksum.	Checksum of message formatted as HIGH BYTE LOW BYTE, HIGH BYTE is in front.

Note: The checksum is a 2 byte checksum and must be sent as HIGH BYTE followed by LOW BYTE.

## DECODE\_DATA\_TWO

Description: 2D barcode decoded packet format.

**Table 2-4 Packet Format**

Length1	Opcode1	Length2	Opcode2	Message Source	Status	Barcode Type	Decode Data	Checksum
0xFF	0xF4		0xF4	0x00				

**Table 2-5 Field Descriptions**

Field Name	Format	Size	Description
Length1	0xFF	1 Byte	Length1 is always 0xFF
Opcode1	0xF4	1 Byte	Identifies this Opcode type.
Length2	High 8 bits, low 8 bits	2 Bytes	Length2 has two bytes, high 8 bits in front ,low 8 bits at the back.
Opcode2	0xF4	1 Byte	Identifies this Opcode type.
Message Source	0 = Scan engine	1 Byte	Identifies where the message is coming from.
Status	Bit 0: Retransmit Bits 1-7: unused	1 Byte	Identifies the transmission status. Unused bits must be set to 0.
BarCode Type	See <a href="#">Table 1-11</a>	1 Byte	Identifies the scanned data code type.
Decode Data	<data>	Variable	Data is decoded data including prefix and suffix sent in ASCII format.
Checksum	2's complement sum of message contents excluding checksum.	2 Bytes	Checksum of message.

### Host Requirements

If ACK/NAK handshaking is enabled, the host responds to each of these messages.

### Scan Engine Requirements

Decode data is sent in this format if packeted decode data is selected via parameter. The host responds to this message with a CMD\_ACK, if ACK/NAK handshaking is enabled.

## 3. Parameter Configuration

Default setting code of special mark symbol is corresponding to different default configuration.No special mark symbol depends on default setting code with \* symbol(except factory default configuration):

- \* : default configuration 1
- # : default configuration 2
- % : default configuration 3
- & : default configuration 4

Table 3-1

Parameter Name	Scanning Head			Note
	Parameter Values	Set Range	Default Values	
Default Configuration	0xF2 0xFF	0: Factory Configuration 1: Default Configuration 1 2: Default Configuration 2 3: Default Configuration 3 4: Default Configuration 4 5: Default Configuration 5	0( Factory Configuration)	
Duration in Scanning	0x88	10~250(unit: 0.1s)	3.0 sec.	
Duration in Scanning Quick Setting	0xF2 0xCF	0x00: infinite time 0x03: 3s 0x05: 5s 0x0A: 10s 0x0B: 15s 0x0C: 20s 0x0D: 30s 0x0E: 60s		
Enable RS485 Networking Function	0xF6 0x33	0: Disable 1: Enable	0: Disable	



Modify 485 Device Slave Address	0xF8 0x11	Slave Address 00 01		
RS485 Networking Decoding Data Format	0xF6 0x34	0: Disable 1: Enable	0: Disable	
RS485 Networking Heartbeat Switch	0xF6 0x35	0: Disable 1: Enable	1: Enable	
Power Mode	0x80	0x00: Continuous Power 0x01: Low Power	0x01:Low Power	
Trigger Mode	0x8A	0x00: Level  0x02:Pulse  0x04: Continuous  0x08: Host  0x09: Automatic induction Mode  0x0A: Button Continuous  0x0B: Button Automatic Induction Mode	0x00: Level	
Continuous Reading Interval	0x89	0~9.9s (unit: 0.1s)	0.5s	
Beeper Volume	0x8C	0x00: High  0x01: Medium  0x02: Low  0x03: Mute	0x00: High	
Beeper Type	0xF2 0xD8	0x00: Passive Beeper  0x01: Active Beeper	0x00: Passive Beeper	
Beep After Good Decode	0x38	0: Disable 1: Enable	1: Enable	
Terminator	0xF2 0x05	0x00: Disable  0x01: CR LF  0x02: CR  0x03: TAB  0x04: CR CR	*0x00: Disable  #0x01: CR LF  &0x01: CR LF  %0x02: CR	

		0x05: CR LF CR LF		
Indicator Light Function	0xF2 0x0A	0x00: Good Decode	0x00: Good Decode	
		0x01: Power LED		
LED After Good Decode	0xF2 0x0B	0: Disable	1: Enable	
		1: Enable		
Decode Indicator Control	0xF2 0xCB	0: Mode 0	0: Mode 0	
		1: Mode 1		
		2: Mode 2		
		3: Mode 3		
Mute	0xF2 0x0C	0: Disable	0: Disable	
		1: Enable		
Boot Prompt	0xF2 0x0D	0: Disable	1: Enable	
		1: Enable		
Setup Code Prompt	0xF2 0x0E	0: Disable	1: Enable	
		1: Enable		
Transmit "No Read" Message	0x5E	0x01: Enable No Read	0x00:Disable No Read	
		0x00: Disable No Read		
Parameter Scanning	0xEC	0: Disable	1: Enable	
		1: Enable		
Send Setting Code	0xF1 0x71	0: Disable	0: Disable	
		1: Enable		
Linear Code Type Security Levels	0x4E	0x01: Linear Security Level 1	0x01:Linear Security Level 1	
		0x02: Linear Security Level 2		
		0x03: Linear Security Level 3		
		0x04: Linear Security Level 4		
Automatic Filling of Value-added Tax Invoice	0xF2 0x08	0: Disable	0: Disable	
		1: Enable		
Invoice Type	0xF2 0xAA	0: Special Invoice	0:Special Invoice	
		1: Plain Invoice		
Transmit ID Characters	0x2D	0: None	0(None)	
		1: AIM code ID		
		2: User Defined ID		

The prefix/suffix value	0x69	0x00~0x7F	0x00	
Prefix	0x68	0x00~0x7F	0x0A	
Suffix1	0x6A	0x00~0x7F	0x0D	
Suffix2				
Scan Data Transmission Format	0xEB	0x00: Data Only 0x01: Data+Suffix1 0x02: Data+Suffix2 0x03: Data+Suf1+Suf2 0x04: Prefix+Data 0x05: Prefix+Data+Suf1 0x06: Prefix+Data+Suf2 0x07: Prefix+Data+Suf1+Suf2	0x00(Data Only)	
Baud Rate	0x9C	0x03:1200 0x04:2400 0x05:4800 0x06:9600 0x07:19200 0x08:38400 0x09:57600 0x0A:115200	0x06:9600	
Data Bit	0xA0	0x02: 7 Data Bits 0x03: 8 Data Bits	0x03: 8 Data Bits	
Parity	0x9E	0x00: Odd 0x01: Even 0x02: Mark 0x03: Space 0x04: None	0x04:None	
Software Handshaking	0x9F	0: Disable	1: Enable	

		1: Enable		
Decode Data Packet Format	0xEE	0: Disable	0: Disable	
		1: Enable		
Host Serial Response Time-out	0x9B	0.0~9.9	2s	
Stop Bit Select	0x9D	0x01: 1 Stop Bit	0x01(1 Stop Bit)	
		0x02: 2 Stop Bits		
Intercharacter Delay	0x6E	0~ 99 msec	0	
Host Character Time-out	0xEF	0.01~0.99S	200ms	
Communication Mode	0xF2 0x01	0: Serial Port	0(Serial Port)	1D product does not support USB KBW and USB serial port
		1:USB KBW		
		2: USB Serial Port		
		3: AUTO UK		
		4: AUTO UV		
		5: Wiegand		
		6: RS485		
		7: AUTO UW		
		8: AUTO UR		
		9: PS2		
		A: TTDATA		
		B: TTDATA+Serial Port		
		E: HID POS		
Wiegand protocol type	0xF2 0xA4	0: AUTO	0: AUTO	
		1: WG26		
		2: WG34		
		3: WG66		
		4: Custom Wiegand transport 1		
		5: Custom Wiegand transport 2		
		6: WG64		
Wiegand 26 Protocol Output Mode	0xF2 0xA5	0: 3+5	0: 3+5	
		1: Raw Data		
Wiegand Output Time Interval Setting	0xF3 0x16	0x16: Wiegand Output Time Interval		
PS2 Mode	0xF2 0xA6	0: AUTO		

		1: Independent PS2		
Floodlight Control	0xF2 0x02	0: Lighting when Read 1: Always Lighting 2: Always Close	0(Lighting when Read)	
Positioning Light Control	0xF2 0x03	0: Lighting when Read 1: Always Lighting 2: Always Close	0(Lighting when Read)	Only for 2D
Positioning light Flicker	0xF2 0xB8	0x00: Flicker 0x01: No Flicker	0x00: Flicker	
Sensitivity Level	0xF2 0x04	1: High Sensitivity 2: Medium Sensitivity 3: Low Sensitivity	1(High Sensitivity)	High Sensitivity:1 Medium Sensitivity:8 Low Sensitivity:15 Sensitivity values inquire the parameter values returned.
Custom Sensitivity	0xF3 0x01	1~15(unit:1)	1	
Stability of Induction Time	0xF3 0x02	0~9.9s(unit:0.1)	0.5s	
Output Interval of The Same Code	0xF3 0x03	0~9.9s (unit:0.1s)	0.5s	
1D Identifies Two Barcodes	0xF2 0x10	0: Disable 1: Enable	0: Disable	
1D inverse barcode reading	0xF2 0x91	0: Disable 1: Enable	0: Disable	
Output Product Information	0xF4 0x01	None	None	
Output Character Set Type	0xF2 0x06	0: Primitive Type 1: GBK(GB2312) 2: UTF8 3: EUC-KR Korean	1:GBK(GB2312)	
Input Character Set Type	0xF2 0xAB	0: AUTO 1: GBK(GB2312) 2: UTF8	0: AUTO	

		3: ASCII 4: Japanese 5: Korean 6: DEC Multinational Character Set (MCS) 7: ISO8859-1 Character Set 8: Japanese Single Byte (valid for special version)		
USB Type	0xF2 0x0F	0: USB1.1(Full Speed) 1: USB2.0(High Speed)	0: USB1.1(Full Speed)	
Country/Language Keyboard	0xF6 0x01	1: American Keyboard 2: Belgium 3: Brazil (ABNT2) 6: Denmark 7: Finland 8: France 9: Austria、Germany 0A: Greece 0B: Hungary 0D: Italy 0F: Netherlands 10: Norway 11: Poland 12: Portugal 13: Romania (standard) 14: Russia 15: Slovakia	1: American Keyboard	

		16: Spain 17: Sweden 19: Turkey_F 1A: Turkey_Q 1B: England 1C: Japan 1D: Chech 1E: Thailand Kedmanee 1F: Ukraine 20: Arabic_101 21: Croatia 22: Korea 23: Bulgaria 24: Multi-country Common		
Time interval that keyboard outputs character	0xF3 0x04	range: 0-1000ms unit: 5ms default: 5ms	5ms	
Quick Settings of Keyboard Output Time Interval	0xF2 0xB2	0: 0ms 1: 10ms 2: 50ms		
Letter case conversion	0xF2 0xA1	0: Normal Letter Case 1: All Uppercase 2: All Lowercase 3: Case Inversion	0: Normal Letter Case	
Keyboard Type	0xF2 0xB4	0: Standard Keyboard 1: Virtual Keyboard	0: Standard Keyboard	

STX and ETX Setting	0xF2 0XB7	0: Disable  1: STX(prefix)  2: ETX(suffix1)  3: STX(prefix)+ETX(suffix1)	0: Disable	
Keyboard State Control	0xF2 0XB9	0: Disable  1: Enable	1: Enable	
ASCII Control Character Output Mode Selection	0xF2 0xAD	0: Output Function Key  1: Output Ctrl Combination Key  2: ALT Mode Output Control Character  3: Output Enter、DownArrow  4: Output CTRL+key combination, but not including the keys on the keyboard		
Boot Event	0xF2 0xA2	0: Disable  1: Enable	0: Disable	
Trigger Event	0xF2 0xA3	0: Disable  1: Eable Event  2: Eable GPIO Pin Event  3: Enable Event&GPIO Pin Event	0: Disable	
Enable Setting Code Password Mode	0xF2 0xA7	0: Disable  1: Enable	0: Disable	
Input Setting Code Password	0xF3 0x05			
Modify Setting Code Password	0xF3 0x06			
Logout Password	0xF2 0xA9			
Disable passive trigger scanning	0xF2 0xA8	0: Disable  1: Enable	0: Disable	
1D Global Switch	0xF2 0x11	0: Disable  1: Enable		



2D Global Switch	0xF2 0x50	0: Disable 1: Enable		
All Barcode Switch	0xF2 0x90	0: Disable 1: Enable		
Hide Head Data	0xF2 0xC6	0: Disable 1: Enable	0: Disable	
Set the Length of the Hidden Head Data	0xF3 0x0B			
Hide Intermediate Data	0xF2 0xC7	0: Disable 1: Enable	0: Disable	
Set the Starting Position of Hiding the Intermediate Data	0xF3 0x0C			
Set the Length of the Hidden Intermediate Data	0xF3 0x0D			
Hide Tail Data	0xF2 0xC8	0: Disable 1: Enable	0: Disable	
Set the Length of the Hidden Tail Data	0xF3 0x0E			
Enable/Disable Insert Custom Data	0xF2 0xDE	0: Disable 1: Enable	0: Disable	
Output Interval of The Same Code	0xF3 0x03	0~9.9s (Unit:0.1s)	0.5s	
Fast Setting	0xF2 0xC9	0x00: No Delay 0x01: Delay 1s 0x03: Delay 3s 0x05: Delay 5s 0x07: Delay 7s 0x09: Infinite Delay(Disable Output Interval of The Same Code)		
Continue Scanning	0xF2 0xED	0: Disable 1: Enable	0: Disable	
Continuously Set Multiple Prefix	0xF3 0x10			
Continuously Set Multiple Suffix	0xF3 0x11			
Complete Continuous Setup of Multiple Prefixes / Suffixes	0xFF 0xF6			

Set Multiple Prefix and Suffix Data Transmission Format	0xEB	0x08: Data + Multiple Suffixes 0x09: Multiple Prefixes+Data 0x0A: Multiple Prefixes+Data+Multiple Suffixes		
Heartbeat Control	0xF2 0xCD	0x00: Disable 0x01: Heartbeat doesn't need ACK 0x02: Heartbeat needs ACK	0: Disable	
URL Blocking	0xF2 0xEa	0: Disable  1: Enable	0: Disable	
<b>About 1D Barcode(only for 1D)</b>				
UPC-A	0x01	0: Disable  1: Enable	1: Enable	
Transmit UPC-A Check Digit	0x28	0: Disable  1: Enable	1: Enable	
UPC-A Preamble	0x22	0x00: No Preamble  0x01: System Character  0x02: System Character&Country Code	0x01: System Character	
UPC-A 2-bits Supplementals	0xF2 0x40	0: Disable  1: Enable	0: Disable	
UPC-A 5-bits Supplementals	0xF2 0x41	0: Disable  1: Enable	0: Disable	
UPC-A read supplementals	0xF2 0x42	0: Disable  1: Enable	0: Disable	
UPC-E	0x02	0: Disable  1: Enable	1: Enable	
Transmit UPC-E Check Digit	0x29	0: Disable  1: Enable	1: Enable	
UPC-E Preamble	0x23	0x00: No Preamble  0x01: System Character  0x02: System Character&Country Code	0x01: System Character	
Convert UPC-E to UPC-A	0x25	0: Disable  1: Enable	0: Disable	

UPC-E 2-bits Supplementals	0xF2 0x3D	0: Disable 1: Enable	0: Disable	
UPC-E 5-bits Supplementals	0xF2 0x3E	0: Disable 1: Enable	0: Disable	
UPC-E read supplementals	0xF2 0x3F	0: Disable 1: Enable	0: Disable	
UPC-E1	0xF2 0x15	0: Disable 1: Enable	0: Disable	
EAN-8	0x04	0: Disable 1: Enable	1: Enable	
EAN-8 Zero Extend (EAN-8 is expanded to EAN-13)	0x27	0: Disable 1: Enable	0: Disable	
EAN-8 2-bits Supplementals	0xF2 0x37	0: Disable 1: Enable	0: Disable	
EAN-8 5-bits Supplementals	0xF2 0x38	0: Disable 1: Enable	0: Disable	
EAN-8 read supplementals	0xF2 0x39	0: Disable 1: Enable	0: Disable	
EAN-8 Transmit Check Digit	0xF2 0x80	0: Disable 1: Enable	1: Enable	
EAN-13	0x03	0: Disable 1: Enable	1: Enable	
EAN-13 2-bits Supplementals	0xF2 0x3A	0: Disable 1: Enable	0: Disable	
EAN-13 5-bits Supplementals	0xF2 0x3B	0: Disable 1: Enable	0: Disable	
EAN-13 read supplementals	0xF2 0x3C	0: Disable 1: Enable	0: Disable	
EAN-13 Transmit Check Digit	0xF2 0x16	0: Disable 1: Enable	1: Enable	
Bookland EAN(ISBN)	0x53	0: Disable 1: Enable	0: Disable	
Decode UPC/EAN	0x10	0x00: Don't Decode	0: Don't Decode	

Supplementals		Supplementals 0x01: Decode Supplementals 0x02: Auto Decode Supplementals	Supplementals	
Bookland ISBN Format	0xF1 0x40	0:ISBN-10 1:ISBN-13	0:ISBN-10	
UPC/EAN Security Level	0x4D	0x00: Level 0 0x01: Level 1 0x02: Level 2 0x03: Level 3	0x00: Level 0	
Code 128 Symbologies Switch	0x08	0: Disable 1: Enable	1: Enable	
Send Code 128 Check Digit	0xF2 0x35	0: Disable 1: Enable	0: Disable	
GS1-128 (formerly UCC/EAN-128)	0x0E	0: Disable 1: Enable	1: Enable	
Send UCC/EAN-128 Check Digit	0xF2 0x36	0: Disable 1: Enable	0: Disable	
ISBT 128	0x54	0: Disable 1: Enable	1: Enable	
Enable Code 39 Barcode Scanning	0x00	0: Disable 1: Enable	1: Enable	
Set Lengths for Code 39	0x12(L1)	0~99	2	
	0x13(L2)	0~99	55	
Code 39 Check Digit Verification	0x30	0: Disable 1: Enable	0: Disable	
Transmit Code 39 Check Digit	0x2B	0: Disable 1: Enable	0: Disable	
Code 39 Full ASCII	0x11	0: Disable 1: Enable	0: Disable	
Code 39 Transport Start Character and Terminator	0xF2 0x30	0: Disable 1: Enable	0: Disable	

Code 39 bigcode	0xF2 0x27	0: Disable 1: Enable	0: Disable	
Convert Code 39 to Code 32 (Italian Pharma Code)	0x56	0: Disable 1: Enable	0: Disable	
Code 32 Prefix	0xE7	0: Disable 1: Enable	0: Disable	
Code 32 Check Digit Verification	0xF2 0x19	0: Disable 1: Enable	0: Disable	
Transmit Code 32 Check Digit	0xF2 0x1A	0: Transmit Check Digit 1: Transmit Start Character, Stop Character, Check Digit	0: Transmit Check Digit	
Code 93	0x09	0: Disable 1: Enable	0: Disable	
Set Lengths for Code 93	0x1A(L1)	0~99	4	
	0x1B(L2)	0~99	55	
Code 93 Check	0xF2 0x4A	0: Disable 1: Enable	1: Enable	
Send Code 93 Check Digit	0xF2 0x4B	0: Disable 1: Enable	0: Disable	
Enable Code 11 Barcode Scanning	0x0A	0: Disable 1: Enable	0: Disable	
Set Lengths for Code 11	0x1C(L1)	0~99	4	
	0x1D(L2)	0~99	55	
Code 11 Check Digit Verification	0x34	0: Disable 1: One check digit 2: Two check digit	0: Disable	
Transmit Code 11 Check Digit	0x2F	0: Disable 1: Enable	0: Disable	
Enable Interleaved 2 of 5/ITF/交叉 25 码	0x06	0: Disable 1: Enable	1: Enable	
Set Scanning Data Lengths for Interleaved 2 of 5	0x16	0~99	14	
	0x17	0~99	14	
Interleaved 2 of 5 Check Digit Verification	0x31	0: Disable	0: Disable	Now

		1: USS Check Digit 2: OPCC Check Digit		Support: 0: Disable 1: USS Check Digit
Transmit Interleaved 2 of 5 Check Digit	0x2C	0: Disable 1: Enable	0: Disable	
Enable ITF14	0xF2 0x43	0: Disable 1: Enable	0: Disable	
Transmit ITF14 Check Digit	0xF2 0x44	0: Disable 1: Enable	0: Disable	
Enable Discrete 2 of 5 /Industrial 2 of 5/IND25/工业 25 码	0x05	0: Disable 1: Enable	0: Disable	
Set Scanning Data Lengths for Discrete 2 of 5	0x14 0x15	0~99 0~99	12	
Discrete 2 of 5 Check	0xF2 0x48	0: Disable 1: Enable	0: Disable	
Transmit Discrete 2 of 5 Check Character	0xF2 0x49	0: Disable 1: Enable	0: Disable	
Matrix 25	0xF2 0x20	0: Disable 1: Enable	0: Disable	
Matrix 25 Check Digit Verification	0xF2 0x21	0: Disable 1: Enable	0: Disable	
Transmit Matrix 25 Check Character	0xF2 0x22	0: Disable 1: Enable	0: Disable	
Set Lengths for Matrix 25	L1=0xF5 0x00, L2=0xF5 0x01	0~99 0~99	12	
Standard 25/IATA 25	0xF2 0x23	0: Disable 1: Enable	0: Disable	
Standard 25 Check Digit Verification	0xF2 0x24	0: Disable 1: Enable	0: Disable	
Transmit Standard 25 Check Character	0xF2 0x25	0: Disable 1: Enable	0: Disable	

Set Lengths for Standard 25	L1=0xF5 0x02, L2=0xF5 0x03	0~99 0~99	12	
Enable Codabar Barcode Scanning	0x07	0: Disable 1: Enable	0: Disable	
Set Lengths for Codabar	0x18(L1) 0x19(L2)	0~99 0~99	5 55	
Codabar Check	0xF2 0x4C	0: Disable 1: Enable	0: Disable	
Transmit Codabar Check Character	0xF2 0x4D	0: Disable 1: Enable	0: Disable	
NOTIS Transmit Format	0x37	0: Disable 1: Enable	0: Disable	
Start Character and Terminator	0xF2 0x31	0: ABCD/ABCD 1: ABCD/TN*E	0: ABCD/ABCD	
Letter Case Setting of Start Character and Terminator	0xF2 0x32	0: Uppercase 1: Lowercase	0: Uppercase	
Enable MSI /MSI PLESSEY Barcode Scanning	0x0B	0: Disable 1: Enable	0: Disable	
Set Lengths for MSI	0x1E(L1) 0x1F(L2)	0~99 0~99	6 55	
MSI Check Digit	0x32	0: One digit 1: Two digits	0 (One digit)	
Transmit MSI Check Digit	0x2E	0: Disable 1: Enable	0: Disable	
MSI Check Digit Algorithm	0x33	0:Mod10/Mod11 1:Mod10/Mod10	1(Mod 10/Mod 10)	
Enable GS1 DataBar(RSS) 14 Barcode Scanning	0xF0 0x52	0: Disable 1: Enable	0: Disable	
Enable GS1 DataBar Limited Barcode Scanning	0xF0 0x53	0: Disable 1: Enable	0: Disable	
Enable GS1 DataBar Expanded Barcode Scanning	0xF0 0x54	0: Disable 1: Enable	0: Disable	

RSS AI Character	0xF2 0x26	0: Disable 1: Enable	1: Enable	
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**About 2D Barcode(only for 2D)**

PDF417

PDF417 (100 017X)	0x0F	0: Disable 1: Enable	1: Enable	
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Read Multi-code	0xF2 0x60	0: Read Monocode 1: Read Dicode 2: Read Monocode /Dicode	0: Read Monocode	
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Read Normal Phase/ Phase Reversal	0xF2 0x61	0: Read Normal Phase 1: Read Phase Reversal 2: Read Normal Phase/ Phase Reversal	0: Read Normal Phase	
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QRCode

QRCode (100 325X)	F0h 25h	0: Disable 1: Enable	1: Enable	
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Read Multi-code	0xF2 0x65	0: Read Monocode 1: Read Dicode 2: Read Monocode /Dicode	0: Read Monocode	
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ECI Control	0xF2 0x66	0: Not Output ECI 1: Output ECI	0: Not Output ECI	
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QR Read Normal Phase/ Phase Reversal	0xF2 0x67	0: Read Normal Phase 1: Read Phase Reversal 2: Read Normal Phase/ Phase Reversal	0: Read Normal Phase	
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DataMatrix

DataMatrix (100 324X)	F0h 24h	0: Disable 1: Enable	1: Enable	
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Read Multi-code	0xF2 0x6A	0: Read Monocode 1: Read Dicode 2: Read Monocode /Dicode	0: Read Monocode	
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Read Normal Phase/ Phase Reversal	0xF2 0x6B	0: Read Normal Phase	0: Read Normal Phase	
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		1: Read Phase Reversal		
		2: Read Normal Phase/ Phase Reversal		
ECI Control	0xF2 0x6C	0: Not Output ECI	0: Not Output ECI	
		1: Output ECI		
MaxiCode				
MaxiCode	F0h 26h	0: Disable	0: Disable	
(100 326X)		1: Enable		
Aztec				
Aztec	F0h 28h	0: Disable	0: Disable	
(100 328X)		1: Enable		
Han Xin Code				
Han Xin Code	F0h 2Fh	0: Disable	0: Disable	
(100 32FX)		1: Enable		
Read Multi-code	0xF2 0x70	0: Read Monocode	0: Read Monocode	
		1: Read Dicode		
		2: Read Monocode /Dicode		
Read Normal Phase/ Phase Reversal	0xF2 0x71	0: Read Normal Phase	0: Read Normal Phase	
		1: Read Phase Reversal		
		2: Read Normal Phase/ Phase Reversal		
ISSN	0xF2 0x33	0: Disable	0: Disable	
		1: Enable		
PLESSEY	0xF2 0x34	0: Disable	0: Disable	
		1: Enable		
PLESSEY Check	0xF2 0x3E	0: Disable	0: Disable	
		1: Enable		
Transmit PLESSEY Check Character	0xF2 0x4F	0: Disable	0: Disable	
		1: Enable		
AIM128	0xF2 0x29	0: Disable	0: Disable	
		1: Enable		
Transmit AIM128 Check Character	0xF2 0x2A	0: Disable	0: Disable	
		1: Enable		

DEU14	0xF2 0x2B	0: Disable 1: Enable	0: Disable	
Transmit DEU14 Check Character	0xF2 0x2C	0: Disable 1: Enable	1: Enable	
DEU12	0xF2 0x2D	0: Disable 1: Enable	0: Disable	
Transmit DEU12 Check Character	0xF2 0x2E	0: Disable 1: Enable	1: Enable	
NEC-25(COOP25)	0xF2 0x45	0: Disable 1: Enable	0: Disable	
NEC-25(COOP25) Check	0xF2 0x46	0: Disable 1: Enable	0: Disable	
Transmit NEC-25(COOP25) Check Character	0xF2 0x47	0: Disable 1: Enable	0: Disable	
Brazilian Bank Code	0xF2 0x28	0: Disable 1: Enable	0: Disable	
COMPOSITE	0xF2 0x17	0: Disable 1: Enable	0: Disable	
EAN/UCC	0xF2 0x18	0: Disable 1: Enable	0: Disable	

## Set Default Parameter

To restore Factory Default Configuration or Default Configuration 1-5, scan the appropriate barcode below.

**Set Factory Defaults** - Scan this barcode to restore the factory default values listed in [Table 4-6](#).

### Factory Default Configuration



Note: Default configurations of the scan engine depend on factory default configuration.

### Default Configuration1

The parameter is main for the POS,  
Communication Mode: Serial port  
Trigger Mode: Key holding.  
Terminator: Disable



### Default Configuration2

The parameter is main for Self-help parameter configuration,  
Communication Mode: USB KBW  
Trigger Mode: Auto-induction  
Terminator: Auto newline(\r\n)



### Default Configuration3

The parameter is main for scan engine parameters configuration  
Communication Mode: USB KBW  
Trigger Mode: Key holding  
Terminator : Enter(\r)



### Default Configuration4

Communication Mode: Serial port 9600  
Trigger Mode: Key holding.  
Terminator: Auto newline  
2D barcode only open QR and DM.



### Default Configuration5

Not yet enabled



## Output Product Information

Parameter # 0xF4 0x01



4040010

## Trigger Mode

### Parameter # 0x8A

#### (Level) Key Holding

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

#### (Pulse) Single Key Trigger

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

#### Continuous Mode

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

#### Automatic Induction Mode

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

#### Host

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

#### Button Automatic Induction Mode

When the button is pressed all the way, it enters automatic induction mode until the button is released and scanning barcode is finished.

When the button is pressed, the positioning light is on, off when the button is released.

**Note:** Key Trigger(Level and Pulse) still valid in other modes



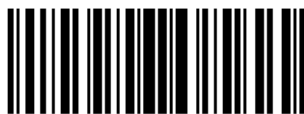
2050200

\* % & Level  
(0X00)



2050202

Pulse  
(0X02)



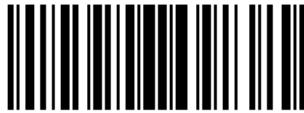
2050204

Continuous  
(0X04)



2050209

# Automatic Induction Mode  
(0x09)



2050208

Host  
(0X08)



205020A

Button Continuous  
(0x0A)



205020B

Button Automatic Induction Mode  
(0x0B)

## Duration in Scanning

### Parameter # 0x88

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

To set a duration in scanning, scan the barcode below. Next scan three *Numeric Barcodes* in appendix that correspond to the desired on time. Single digit numbers must have a leading zero. For example, to set an on time of 0.5 seconds, scan the barcode below, then scan the "0", "0" and "5" barcodes; to set an on time of 10.5 seconds, scan the barcode below, then scan the "1", "0" and "5" barcodes. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.



30500305FF

Duration in Scanning(Default: 3.0 sec.)

## Quick Setting

Parameter # 0xF2 0xCF

Support 3S、5S、10S、15S、20S、30S、60S and infinite time.



**3030CF0**  
infinite time  
(0x00)



**3030CF3**  
3s  
(0x03)



**3030CF5**  
5s  
(0x05)



**3030CFA**  
10s  
(0x0A)



**3030CFB**  
15s  
(0x0B)



**3030CFC**  
20s  
(0x0C)



## Continuous Reading Interval

### Parameter # 0x89

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

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

To set a Continuous Reading Interval, scan the barcode below. Next scan two [Numeric Barcodes](#) in appendix that correspond to the desired time-out. Single digit values must have a leading zero. For example, to set a time-out of 0.5 seconds, scan the barcode below, then scan the “0” and “5” barcodes. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



## Output Interval of The Same Code

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

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

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

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

### Parameter #0xF3 0x03



For example:

Set output interval of the same code is 200ms

Scan output interval of the same code setting code,then scan [Numeric Barcodes](#) to set 0 and 2

Set output interval of the same code is 1500ms

Scan output interval of the same code setting code, then scan *Numeric Barcodes* 1 and 5

### Fast Setting

Parameter # **0xF2 0xC9**

Fast setting, Including 0s、 1s、 3s、 5s、 7s and infinite delay.



**3030C90**

No Delay  
(0x00)



**3030C91**

Delay 1s  
(0x01)



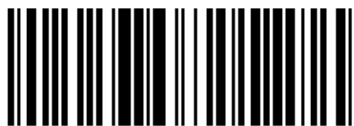
**3030C93**

Delay 3s  
(0x03)



**3030C95**

Delay 5s  
(0x05)



**3030C97**

Delay 7s  
(0x07)





3030C99

Infinite Delay(Disable Output Interval of The Same Code)  
(0x09)

## Continue Scanning

Parameter # 0xF2 0xED

This function is suitable for these trigger modes: (level) key holding , (pulse) single key trigger, host mode.



3030ED0

\*Disable  
(0x00)



3030ED1

Enable  
(0x01)

## Disable passive trigger scanning

Scan below enable barcode,level and host triggers will be disabled.

Parameter # 0xF2 0xA8



3030A80

\* Disable  
(0x00)



3030A81

Enable  
(0x01)

## Sensitivity Level

Set automatic induction triggering sensitivity

Sensitivity Values Inquire the parameter values returned.

Special: 0,high: 1,Middle: 8,Low: 15, Default: High

Parameter # 0xF2 0x04



3030040

Special  
(0x00)



3030041

\* High  
(0x01)



3030042

Middle  
(0x02)



3030043

Low  
(0x03)

## Custom Sensitivity

Set Automatic induction triggering sensitivity, The smaller ,the more sensitive, Values range 00-15  
Default: 01

Parameter #0xF3 0x01



3F30000001

For example:

Set sensitivity is 2

Scan the custom sensitivity setting code,then scan [Numeric Barcodes](#) 0 and 2

## Stability of Induction Time

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

Parameter #0xF3 0x02



3F30000002

Stability of Induction Time

For example:

Set stability of induction time is 200ms

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

Set stability of induction time is 1500ms

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

## Communication Mode

Parameter # 0xF2 0x01



3030010

\* & Serial Port, UART, TTL, RS232  
(0x00)



3030011

# % USB KBW  
(0x01)



3030012

USB Serial Port  
(0x02)



3030013

AUTO UK  
(0x03)



3030014

AUTO UV  
(0x04)



**3030015**

Wiegand  
(0x05)



**3030016**

RS485  
(0x06)



**3030017**

AUTO UW  
(0x07)



**3030018**

AUTO UR  
(0x08)



**3030019**

PS2  
(0x09)



**303001A**

TTDATA  
(0x0A)



**303001B**  
TTDATA+serial port  
(0x0B)



**303001E**  
HID POS  
(0x0E)

1D module does not support USB KBW and USB serial port

【AUTO\_UK】 Automatic mode UK, USB and serial ports output simultaneously (use KBW)

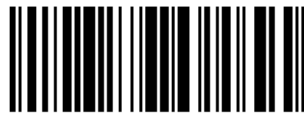
【AUTO\_UV】 Automatic mode UV, USB and serial output simultaneously (use USB port)

## Serial Parameters

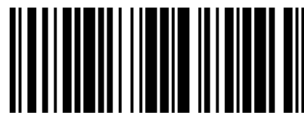
### Baud Rate

#### Parameter # 0x9C

Baud rate is the number of bits of data transmitted per second. The scan engine's baud rate setting should match the data rate setting of the host device. If not, data may not reach the host device or may reach it in distorted form.



**2090103**  
Baud Rate 1200  
(0x03)



**2090104**  
Baud Rate 2400  
(0x04)



**2090105**  
Baud Rate 4800  
(0x05)



**2090106**  
\* Baud Rate 9600  
(0x06)



**2090107**  
Baud Rate 19,200  
(0x07)



**2090108**  
Baud Rate 38,400  
(0x08)



**2090109**  
Baud Rate 57600  
(0x09)



**209010A**  
Baud Rate 115200  
(0x0A)

### **Data Bit**

**Parameter # 0xA0**

Data bit: This is a parameter to measure the actual data bit in communication.



**2090502**  
7 Data Bits  
(0x02)



2090503

\*8 Data Bits

(0x03)

## Parity

### Parameter # 0x9E

A parity check bit is the most significant bit of each ASCII coded character. Select the parity type according to host device requirements.

If you select **ODD** parity, the parity bit has a value 0 or 1, based on data, to ensure that an odd number of 1 bits is contained in the coded character.



2090300

Odd

(0x00)

If you select **EVEN** parity, the parity bit has a value 0 or 1, based on data, to ensure that an even number of 1 bits is contained in the coded character.



2090301

Even

(0x01)

Select **MARK** parity and the parity bit is always 1.



2090302

Mark

(0x02)

Select **SPACE** parity and the parity bit is always 0.



2090303

Space

(0x03)

If no parity is required, select **NONE**.



2090304

\* None

(0x04)

## Stop Bit Select

### Parameter # 0x9D

The stop bit(s) at the end of each transmitted character marks the end of transmission of one character and prepares the receiving device for the next character in the serial data stream. Set the number of stop bits (one or two) to match host device requirements.



2090201

\* 1 Stop Bit  
(0x01)



2090202

2 Stop Bits  
(0x02)

## Software Handshaking

### Parameter # 0x9F

This parameter offers control of the data transmission process in addition to that offered by hardware handshaking. Hardware handshaking is always enabled and cannot be disabled by the user.

#### Disable ACK/NAK Handshaking

When this option is selected, the scan engine neither generates nor expects ACK/NAK handshaking packets.



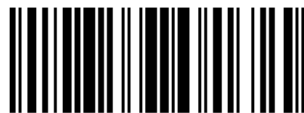
2090400

Disable ACK/NAK  
(0x00)

#### Enable ACK/NAK Handshaking

When this option is selected, after transmitting data, the scan engine expects either an ACK or NAK response from the host. The scan engine also sends ACKs or NAKs messages to the host.

The scan engine waits up to the programmable Host Serial Response Time-out to receive an ACK or NAK. If the scan engine does not get a response in this time, it resends its data up to two times before discarding the data and declaring a transmit error.



2090401

\* Enable ACK/NAK  
(0x01)

## Host Serial Response Time-out

### Parameter # 0x9B

This parameter specifies how long the scan engine waits for an ACK or NAK before resending. Also, if the scan engine wants to send, and the host has already been granted permission to send, the scan engine waits for the designated time-out before declaring an error.



The delay period can range from 0.0 to 9.9 seconds in 0.1 second increments. After scanning the barcode below, scan two *Numeric Barcodes* in appendix. Values less than 10 require a leading zero. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.



Host Serial Response Time-out(Default: 2.0 sec.)

### Intercharacter Delay

Parameter # 0x6E

The intercharacter delay gives the host system time to service its receiver and perform other tasks between characters. Select the intercharacter delay option matching host requirements. The delay period can range from no delay to 99 msec in 1 msec increments. After scanning the barcode below, scan two *Numeric Barcodes* in appendix to set the desired time-out. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.



Intercharacter Delay(Default: 0 sec.)

### Host Character Time-out

Parameter # 0xEF

This parameter determines the maximum time the scan engine waits between characters transmitted by the host before discarding the received data and declaring an error. The time-out is set in 0.01 second increments from 0.01 seconds to 0.99 seconds. After scanning the barcode below, scan two *Numeric Barcodes* in appendix to set the desired time-out. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.



Host Character Time-out(Default: 200 msec.)

## Keyboard

### Country/Language Keyboard

Parameter #0xF6 0x01



\* American Keyboard  
(0x01)



**Belgium  
(0x02)**



**6060103  
Brazil (ABNT2)  
(0x03)**



**6060106  
Denmark  
(0x06)**



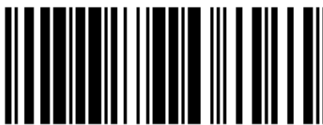
**6060107  
Finland  
(0x07)**



**6060108  
France  
(0x08)**



**6060109  
Austria, Germany  
(0x09)**



**606010A**

Greece  
(0x0A)



**606010B**

Hungary  
(0x0B)



**606010D**

Italy  
(0x0D)



**606010F**

Netherlands  
(0x0F)



**6060110**

Norway  
(0x10)



**6060111**

Poland (214)  
(0x11)



**6060112**

**Portugal  
(0x12)**



**6060113**

**Romania (standard)  
(0x13)**



**6060114**

**Russia  
(0x14)**



**6060115**

**Slovakia  
(0x15)**



**6060116**

**Spain  
(0x16)**



**6060117**

**Sweden  
(0x17)**



**6060119**

Turkey\_F  
(0x19)



**606011A**

Turkey\_Q  
(0x1A)



**606011B**

England  
(0x1B)



**606011C**

Japan  
(0x1C)



**606011D**

Czech  
(0x1D)



**606011E**

Thailand Kedmanee  
(0x1E)



**606011F**

**Ukraine  
(0x1F)**

Supporting countries of Arabic\_101: Saudi Arabia, United Arab Emirates, Oman, Egypt, Bahrain, Qatar, Kuwait, Lebanon, Libya, Syria, Yemen, Iraq, Jordan



**6060120**

**Arabic\_101  
(0x20)**



**6060121**

**Croatia  
(0x21)**



**6060122**

**Korea  
(0x22)**



**6060123**

**Bulgaria  
(0x23)**



**6060124**

**Multi-country Common  
(0x24)**

[Note 1]: Need to install WIN plug-in

[Note 2]: Multi-country common: In principle, the output character set should be set to UTF8

[Note 3]: Multi-country common: Microsoft Word (Office Word) cannot use this method. You can use the virtual keyboard method, the output character set should be set to UTF8, and the keyboard should be set to an American keyboard.

### Time interval that keyboard outputs character

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

Parameter #0xF3 0x04



For example:

Time interval: 100ms

First scan the setting code above,then scan '0', '2', '0' *Numeric Barcodes* in order.

### Quick Settings of Keyboard Output Time Interval

Parameter # 0xF2 0xB2



### Letter case conversion

If set to "Case Inversion", the uppercase of the output data will be lowercase, lowercase letters will be uppercase; If set to "all uppercase", regardless of whether the letters in the output data are uppercase or lowercase, all converted to uppercase letters; If set to "all lowercase", regardless of whether the letters in the output data is uppercase or lowercase, all converted to lowercase letters.

Parameter #0xF2 0xA1



**3030A10**  
\* Normal Letter Case  
(0x00)



**3030A11**  
All Uppercase  
(0x01)



**3030A12**  
All Lowercase  
(0x02)



**3030A13**  
Case Inversion  
(0x03)

### **Keyboard Type**

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

**Parameter # 0xF2 0xB4**



**3030B40**  
\* Standard Keyboard  
(0x00)



**3030B41**  
Virtual Keyboard



(0x01)

### Keyboard State Control

Scanner control the state of the keyboard.

Parameter # 0xF2 0XB9



3030B90

Disable  
(0x00)



3030B91

\* Enable  
(0x01)

### ASCII Control Character Output Mode Selection

Parameter # 0xF2 0xAD

Output Function Key: The control character is used as a custom function key. For details, see Appendix Table 4-3.

Output Ctrl Combination Key (This function is used with the prefix and suffix): Ctrl combination key output control characters. For details, see Appendix Table 4-3.

ALT Mode Output Control Character: Support full control character output in Chinese environment, specific reference standard ASCII table

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



3030AD0

Output Function Key  
(0x00)



3030AD1

Output Ctrl Combination Key  
(0x01)



3030AD2

**ALT Mode Output Control Character  
(0x02)**



**3030AD3**

**Output Enter, DownArrow  
(0x03)**



**3030AD4**

**Output CTRL+key combination, but not including the keys on the keyboard  
(0x04)**

**Wiegand**

**Wiegand Protocol Type**

**Parameter # 0xF2 0xA4**



**3030A40**

**\*AUTO  
(0x00)**



**3030A41**

**WG26  
(0x01)**



**3030A42**

**WG34  
(0x02)**



3030A43

WG66  
(0x03)



3030A44

Custom Wiegand transport 1  
(0x04)



3030A45

Custom Wiegand transport 2  
(0x05)



3030A46

WG64  
(0x06)

### Wiegand 26 Protocol Output Mode

Parameter # 0xF2 0xA5



3030A50

\*3+5  
(0x00)



3030A51

Raw Data  
(0x01)

## Wiegand Output Time Interval Setting

### Parameter # 0xF3 0x16

On the basis of the time to set, scan the corresponding coefficient (two digit setting code). Add 0 in front of single digit. For example, set 100 us, the coefficient is 01, then you need to scan two digital setting codes that is "0" and "1" in order. To set 1000 us, the coefficient is 10, then scan "1" and "0" in order. The time range of support setting is 1-10 (100us-1000us).



**3F30000016**  
Wiegand Output Time Interval  
(0x16)

## PS2 Mode

PS2 Operating Mode:

0: AUTO, connect two PS2 device. Default: The external keyboard is valid. The internal is valid when the data is output.

1: Independent PS2, only use internal PS2.

### Parameter # 0xF2 0xA6



**3030A60**  
AUTO  
(0x00)



**3030A61**  
Independent PS2  
(0x01)

## RS485 Networking Function

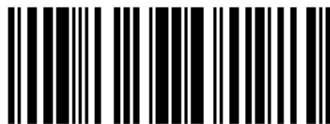
### Enable RS485 Networking Function

Enable or disable RS485 networking function

### Parameter # 0xF6 0x33



**6063300**  
Disable\*  
(0x00)



6063301

Enable  
(0x01)

### Modify 485 Device Slave Address

Set 485 slave address

Parameter # 0xF8 0x11

Make setting code ^380811xxxx



808110001

Slave Address 00 01

### RS485 Networking Decoding Data Format

Parameter # 0xF6 0x34

Disable:Send the decoded data directly, the format is add+data.

Enable:Use RS485 networking data packet format

When disable, the se955 packet format must be set to the original data.



6063400

Disable\*  
(0x00)

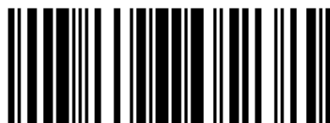


6063401

Enable  
(0x01)

### RS485 Networking Heartbeat Switch

Parameter # 0xF6 0x35



6063500

Disable  
(0x00)



6063501

Enable\*  
(0x01)

## Power Mode

### Parameter # 0x80

This parameter determines the power mode of the engine.

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

In Continuous Power mode, the scan engine remains in the Awake state after each decode attempt (see [Power Management](#)).

The Sleep and Awake commands (see [SLEEP](#) and [WAKEUP](#)) can be used to change the power state in either the Low Power mode or the Continuous Power mode.



1040450

Continuous Power  
(0x00)



1040451

Low Power  
(0x01)

## Beeper

### Beeper Volume

#### Parameter # 0x8C

To select a decode beep volume, scan the appropriate barcode.



2050802

Low  
(0x02)



2050801

Medium  
(0x01)



**2050800**

\* High  
(0x00)



**2050803**

Mute  
(0x03)

### Beeper Type

Parameter # 0xF2 0xD8



**3030D80**

\* Passive Beeper  
(0x00)



**3030D81**

Active Beeper  
(0x01)

### Beep After Good Decode

Parameter # 0x38

Scan this symbol to set the scan engine to beep after a good decode.



**1040021**

\* Beep After Good Decode  
(0x01)

Scan this symbol to set the scan engine not to beep after a good decode. The beeper still operates during parameter menu scanning and indicates error conditions.



**1040020**

Do Not Beep After Good Decode  
(0x00)

## Indicator Light Function

### Parameter # 0xF2 0x0A

Scan the appropriate barcode below to set indicator light function.



**30300A0**

\* Good Decode  
(0x00)



**30300A1**

Power LED  
(0x01)

## LED After Good Decode

### Parameter # 0xF2 0x0B

To enable or disable LED after good decode, scan the appropriate barcode below.



**30300B0**

Disable  
(0x00)



**30300B1**

\* Enable  
(0x01)

## Decode Indicator Control

### Parameter # 0xF2 0xCB

Mode 0: The light is off when power on. Bright when decoding is successful. The light will be off after the specified time.

Mode 1: The light is on when power on. Off when decoding is successful. The light will be on after the specified time (Sleep mode is also bright).

Mode 2: The light is on when power on. Off when triggering decoding. Bright when decoding is successful. The light will be off after the specified time.

Mode 3: The decoding indicator light is used as the illumination light. When decoding, the light is on, and light is off when the decoding ends.



**3030CB0**



**\* Mode 0  
(0x00)**



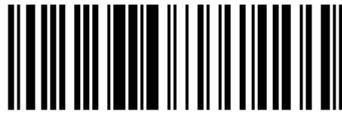
**3030CB1**

**Mode 1  
(0x01)**



**3030CB2**

**Mode 2  
(0x02)**



**3030CB3**

**Mode 3  
(0x03)**

## **Mute**

**Parameter # 0xF2 0x0C**

To enable or disable close all prompt, scan the appropriate barcode below.



**30300C0**

**\* Disable  
(0x00)**



**30300C1**

**Enable  
(0x01)**

## **Boot prompt**

**Parameter # 0xF2 0x0D**



**30300D0**

**Disable  
(0x00)**



**30300D1**

**\* Enable  
(0x01)**

## Setup Code Prompt

Parameter # 0xF2 0x0E



**30300E0**

**Disable  
(0x00)**



**30300E1**

**\* Enable  
(0x01)**

## Floodlight Control

Parameter # 0xF2 0x02



**3030020**

**\* Lighting when Read  
(0x00)**



**3030021**

**Always Lighting  
(0x01)**



3030022

Always Close

(0x02)

## Positioning light

Only for 2D product.

### Positioning light control

Parameter # 0xF2 0x03



3030030

\* Lighting when Read

(0x00)



3030031

Always Lighting

(0x01)



3030032

Always Close

(0x02)

### Positioning light Flicker

Parameter # 0xF2 0xB8



3030B80

\*Flicker

(0x00)



3030B81

**No Flicker  
(0x01)**

## Decode Data Packet Format

### Parameter # 0xEE

This parameter selects whether decoded data is transmitted in raw format (unpacked), or transmitted with the packet format as defined by the serial protocol.

If the raw format is selected, ACK/NAK handshaking is disabled for decode data.



**\* Send Raw Decode Data  
(0x00)**



**Send Packeted Decode Data  
(0x01)**

## Transmit “No Read” Message

### Parameter # 0x5E

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



**Enable No Read  
(0x01)**

When disabled, it cannot send any messages to the host even if the barcode cannot be decoded.



**\* Disable No Read  
(0x00)**

## Transmit Code ID Character

### Parameter # 0x2D

A code ID character identifies the code type of a scanned barcode. This can be useful when decoding more than one code type. The code ID character is inserted between the prefix character (if selected) and the decoded symbol.

Select no code ID character, a Symbol Code ID character, or an AIM Code ID character. The Symbol Code ID characters are listed below; see [AIM Code Identifiers](#).



2051702

Code ID  
(0x02)



2051701

AIM ID  
(0x01)



2051700

\* None  
(0x00)

## Terminator

### Parameter # 0xF2 0x05

Add character format: Decode Data+Terminator.



3030050

\* Disable  
(0x00)



3030051

# & CR LF  
(0x01)



3030052

% CR  
(0x02)



3030053

TAB  
(0x03)



3030054

CR CR  
(0x04)



3030055

CR LF CR LF  
(0x05)

## Prefix/Suffix

### Prefix/Suffix Values

Parameter # P = 0x69, S1 = 0x68, S2 = 0x6A

A prefix and/or one or two suffixes can be appended to scan data for use in data editing. To set these values, scan a four-digit number (i.e. four barcodes) that corresponds to ASCII values. See the [Table 4-3](#) and [Numeric Barcodes](#) in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix. To set the Prefix/Suffix values via serial commands, see [Character Comparison Table](#).

**NOTE:** In order to use Prefix/Suffix values, the [Scan Data Transmission Format](#) must be set.



50C0107

Scan Prefix



50C0006

Scan Suffix 1



50C0208

## Scan Suffix 2



6Q

Data Format Cancel

## Continuously Set Multiple Prefix and Suffix Modes

### Continuously Set Multiple Prefix

Parameter # 0xF3 0x10

Default is one prefix, you can set up to ten prefixes. Scan the barcode below to continuously set multiple prefixes. Scan Numeric Barcodes to set prefix. Each four Numeric Barcodes corresponds to a prefix character through an appendix table. Automatically ends after scanning for ten prefixes. According to the number of prefixes needed, you can scan "Complete Continuous Setup of Multiple Prefixes / Suffixes" to complete the prefix setting in advance.

Note: In order to use multiple prefixes, you must set up data transmission Format, that is "multiple prefix + data" or "multiple prefix + data + multiple suffixes" correspond to multiple prefix functions.



3F30000010

Continuously Set Multiple Prefix  
(0x00)

### Continuously Set Multiple Suffix

Parameter # 0xF3 0x11

Default is two suffixes, you can set up to ten suffixes. Scan the barcode below to continuously set multiple suffix. Scan Numeric Barcodes to set suffix. Each four Numeric Barcodes corresponds to a suffix character through an appendix table. Automatically ends after scanning for ten suffixes. According to the number of suffixes needed, You can scan "Complete Continuous Setup of Multiple Prefixes / Suffixes" to complete the suffix setting in advance.

Note: In order to use multiple suffixes, you must set up data transmission format, that is "data + multiple suffixes " or "multiple prefixes + data + multiple suffixes" correspond to multiple suffix functions.



3F30000011

Continuously Set Multiple Suffix  
(0x00)

### Complete Continuous Setup of Multiple Prefixes / Suffixes

Parameter # 0xFF 0XF6

Scanning the code below exits the state of continuous setup of multiple prefixes or suffixes and preserves the current setting of prefixes or suffixes.

Note: If continuously set ten prefixes or suffixes, the setting will be automatically terminated. Otherwise the code below must be scanned each time to exit the state.



303FF60

## Complete Continuous Setup of Multiple Prefixes / Suffixes (0x00)

### Exit Set Prefix or Suffix

#### Parameter # 0xFF 0XF6

Scanning the barcode below will exit continuously set prefix or suffix. And reserve the current setting of prefix or suffix.

Note:If continuously set ten prefixes or suffixes,then automatic end setting. Otherwise, scan the barcode below every time to exit.



**303FF60**

**Exit Set Prefix or Suffix  
(0x00)**

### Scan Data Transmission Format

#### Parameter # 0xEB

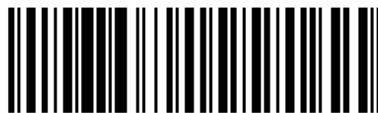
Scan the following corresponding barcodes to set the desired data transmission format.

Note:Scan the barcode below to set corresponding data format after setting prefixes or suffixes. For example, it is "data+suffix 1" data format before, after setting prefixes, must scan"prefixes+data" or "prefixes+data+suffixes" to set prefix function.



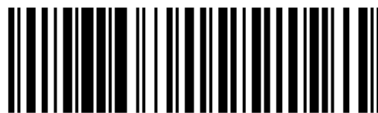
**20C1000**

**\* Original Data  
(0x00)**



**20C1001**

**<DATA><SUFFIX 1>  
(0x01)**



**20C1002**

**<DATA><SUFFIX 2>  
(0x02)**



**20C1003**

**<DATA> <SUFFIX 1><SUFFIX 2>**



(0x03)



**20C1004**  
<PREFIX> <DATA >  
(0x04)



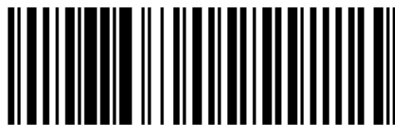
**20C1005**  
<PREFIX> <DATA> <SUFFIX 1>  
(0x05)



**20C1006**  
<PREFIX> <DATA> <SUFFIX 2>  
(0x06)



**20C1007**  
<PREFIX> <DATA> <SUFFIX 1> <SUFFIX 2>  
(0x07)



**20C1008**  
Data + Multiple Suffixes  
(0x08)



**20C1009**  
Multiple Prefixes+Data  
(0x09)



20C100A

Multiple Prefixes+Data+Multiple Suffixes  
(0x0A)

**STX and ETX Setting**  
Parameter # 0xF2 0xB7



3030B70

\* Disable  
(0x00)



3030B71

STX(prefix)  
(0x01)



3030B72

ETX(suffix 1)  
(0x02)



3030B73

STX(prefix)+ETX(suffix 1)  
(0x03)

**Set Prefix and Suffix according to Barcode Type**

**Set Prefix according to Barcode Type**

Parameter # 0xF3 0x12

Set multiple prefix according to barcode type. First, scan the barcode below. Second, choose barcode type, according to table 1-11 and table 4-3, scan the index of the corresponding hexadecimal value. For example, the QR code type is 0XF1, then scan "1" "2" "4" "1" digital setting code to set the barcode type. Third, scan barcode to set prefix or suffix, for example, set number "1", then scan "1" "0" "4" "9" digital setting code. Last, scan Exit Set Prefix or Suffix barcode.



**Set Prefix according to Barcode Type**

**Set Suffix according to Barcode Type**

**Parameter # 0xF3 0x13**

Refer to "Set Prefix according to Barcode Type"



**Set Suffix according to Barcode Type**

**Clear Prefix according to Barcode Type**

**Parameter # 0xF3 0x14**

Clear multiple prefix according to barcode type. First, scan the barcode below. Second, choose barcode type, according to table 1-11 and table 4-3, scan the index of the corresponding hexadecimal value. For example, the QR code type is 0XF1, then scan "1" "2" "4" "1" digital setting code to clear the prefix of QR.

Note: If you need to clear the prefix of all barcode type, scan "1" "2" "5" "5" (0xFF) digital setting code.



**Clear Prefix according to Barcode Type**

**Clear Suffix according to Barcode Type**

**Parameter # 0xF3 0x15**

Refer to "Clear Prefix according to Barcode Type".



**Clear Suffix according to Barcode Type**

**Enable/Disable Prefix or Suffix**

**Parameter # 0xF2, 0xD4**

Scan the following corresponding barcode to set the desired data transfer format.



**Disable Prefix or Suffix (Raw Data)  
(0x00)**



**3030D41**

**Enable Prefix(Prefix+ Data)  
(0x01)**



**3030D42**

**Enable Suffix(Data+ Suffix)  
(0x02)**



**3030D43**

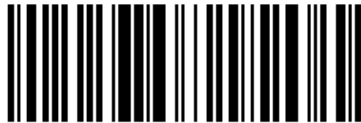
**Enable Prefix and Suffix(Prefix+Data+Suffix)  
(0x03)**

## Hide Custom Barcode Data

### Hide Head Data

**Parameter # 0xF2 0xC6**

Hide head data to decoded output data.It can be configured to hide any length. If the configuration length exceeds the barcode data length, then the whole content of the current barcode can be hidden.



**3030C60**

**\* Disable  
(0x00)**



**3030C61**

**Enable  
(0x01)**

### Set the Length of the Hidden Head Data

**Parameter # 0xF3 0x0B**

Set the length of the hidden head data, range is 1-255. Scan the barcode below and then scan the Numeric Barcodes, such as the need to hide 16 characters, then scan Numeric Barcodes 0,1,6 in sequence.



### Hide Intermediate Data

Parameter # 0xF2 0xC7

Hide intermediate data to decoded output data. You can configure any starting position and length. If the starting position of the configuration exceeds the barcode data length, the current barcode is not hidden. If the configuration length exceeds the remaining barcode data length, all barcode data after the starting position is hidden.



### Set the Starting Position of Hiding the Intermediate Data

Parameter # 0xF3 0x0C

Set the starting position of hiding the intermediate data, range is 1-255. Scan the barcode below and then scan the Numeric Barcodes. For example, to hide data after the third character (the fourth begins to hide), scan Numeric Barcodes 0, 0,3 in sequence.



### Set the Length of the Hidden Intermediate Data

Parameter # 0xF3 0x0D

Set the length of the hidden intermediate data, range is 1-255. Scan the barcode below and then scan the Numeric Barcodes. such as the need to hide 16 characters, then scan Numeric Barcodes 0,1,6 in sequence.



## Hide Tail Data

### Parameter # 0xF2 0xC8

Hide tail data to decoded output data. It can be configured to hide any length. If the configuration length exceeds the barcode data length, then the whole content of the current barcode can be hidden.



\* Disable  
(0x00)



Enable  
(0x01)

## Set the Length of the Hidden Tail Data

### Parameter # 0xF3 0x0E

Set the length of the hidden tail data, range is 1-255. Scan the barcode below and then scan the *Numeric Barcodes*. such as the need to hide 16 characters, then scan *Numeric Barcodes* 0,1,6 in sequence.



## Insert Custom Data

### Enable/Disable Insert Custom Data

#### Parameter # 0xF2 0xDE

Support for inserting custom data anywhere in the barcode, up to 10 bytes.



\*Disable  
(0x00)



Enable  
(0x01)

## Set Position of the Inserted Data

### Parameter # 0xF3 0x17

According to the position to be inserted, scan the corresponding value (4 digit setting code). Fill 0 in front of the number of insufficient digits. For example, set after the 3rd character, you need to scan 4 digit setting code "0" "0" "0" "3".

If the position is 0, then insert the header of the decoded data. If the position is larger than the decoded data length, the tail of the decoded data is inserted by default. Supported settings for the insertion position range is 0-5000.



3F30000017

Set Position of the Inserted Data

(Next, scan the corresponding Numeric Barcodes.)

## Set Inserted Data

### Parameter # 0xF3 0x1A

Set to insert custom data, and scan the custom data that needs to be set. For example, if you need to set the character 'QR' (0x51, 0x52), then continuously scan two sets of digital setting code '1'0'8'1' (1000+0x51) and '1'0'8'2' (1000+0x52). Support up to 10 custom data, can be set continuously. When 10 data is reached, the setting is automatically exited. Complete in advance: Scan the "Exit Set Custom Data" setting code, then exit the setting and save the currently set data.



3F3000001A

Set Inserted Data

(Next, scan the corresponding Numeric Barcodes.)

## Exit Setting Custom Data

### Parameter # 0xFF 0xF6

Exit the setting and save the data that is currently set.



303FF60

Exit Setting Custom Data

## Output Character Set Type

0: Primitive Type

1:GBK(GB2312)

2: UTF8

Default: 0(Primitive Type)

Parameter # 0xF2 0x06



3030060

\* Primitive Type

(0x00)



3030061

GBK(GB2312)

(0x01)



3030062

UTF8

(0x02)



3030063

EUC-KR Korean (for special version)

(0x03)

## Input Character Set Type

Parameter # 0xF2 0xAB



3030AB0

\*AUTO

(0x00)



3030AB1

GBK(GB2312)

(0x01)





**3030AB2**

UTF8  
(0x02)



**3030AB3**

ASCII  
(0x03)



**3030AB4**

Japanese (for special version)  
(0x04)



**3030AB5**

Korean (for special version)  
(0x05)



**3030AB6**

DEC Multinational Character Set (MCS)  
(0x06)



**3030AB7**

ISO8859-1 Character Set  
(0x07)



**3030AB8**

**Japanese Single Byte (valid for special version)  
(0x08)**

## USB Type

USB type,0: USB1.1(Full Speed), 1:USB2.0(High Speed),Default USB1.1  
Parameter # **0xF2 0x0F**



**30300F0**

**\*USB1.1(Full Speed)  
(0x00)**



**30300F1**

**USB2.0(High Speed)  
(0x01)**

## Event Report

Send Event Report Command refers to EVENT in SSI Commands.

### Boot Event

Parameter # **0xF2 0xA2**



**3030A20**

**\* Disable  
(0x00)**



**3030A21**

**Enable  
(0x01)**

### Trigger Event

When scan engine triggers reading, it can be prompted by a command or GPIO pin. The GPIO pin is prompted to remain low until the end of the reading

## Parameter # 0xF2 0xA3



**3030A30**

**\* Disable  
(0x00)**



**3030A31**

**Enable Event  
(0x01)**



**3030A32**

**Eable GPIO Pin Event  
(0x02)**



**3030A33**

**Enable Event&GPIO Pin Event  
(0x03)**

## Heartbeat Control

### Parameter # 0xF2 0xCD

00: Disable heartbeat function

01: Send a heartbeat every 9 seconds(04 50 00 00 FF AC)

02: Send a heartbeat every 9 seconds(04 51 00 00 FF AB), If the ACK is not received in 3 seconds, the device restarts



**3030CD0**

**\* Disable  
(0x00)**



**3030CD1**

Heartbeat doesn't need ACK  
(0x01)



**3030CD2**

Heartbeat needs ACK  
(0x02)

## URL Blocking

Block URLs starting with "http://" and "https://"

Parameter # 0xF2 0xEa



**3030EA0**

\*Disable  
(0x00)



**3030EA1**

Enable  
(0x01)

## Invoice Function

Open the invoice function, automatically shut down CODE128 code, if you need to read CODE128, can open CODE128.

### Automatic Filling of Value-added Tax Invoice

Parameter # 0xF2 0x08



**3030080**

\* Disable  
(0x00)



3030081

Enable  
(0x01)

## Invoice Type

Parameter # 0xF2 0xAA



3030AA0

\* Special Invoice  
(0x00)



3030AA1

Plain Invoice  
(0x01)

## Parameter Scanning

### Parameter # 0xEC

To disable decoding of parameter barcodes, scan the barcode below. The **Set Defaults** parameter barcode can still be decoded. To enable decoding of parameter barcodes, either scan **Enable Parameter Scanning** below, **Set Factory Defaults** or set this parameter to 0x01 via a serial command.



1040601

\* Enable Parameter Scanning  
(0x01)



1040600

Disable Parameter Scanning  
(0x00)

## Send Setting Code

### Parameter # 0xF1 0x71

Enable Send Setting Code to transmit barcodes in the following format, in Code 128, to the host:

<FNC3>L<any length data>

<FNC3>B<12 characters of data>

Note that the special Code 128 character <FNC3> must appear at the beginning of this data. However, if the appropriate data does not follow this as shown above, it does not transmit to the host device.



**N02711**

**Enable Send Setting Code  
(0x01)**



**N02710**

**\* Disable Send Setting Code  
(0x00)**

## Setting Code Password Mode

Enable setting code password mode, then scan setting code after inputting right password. Once input right password, this time boot is valid.

Note: 2 password(00-99)

### Enable Setting Code Password Mode

Parameter # 0xF2 0xA7



**3030A70**

**\* Disable  
(0x00)**



**3030A71**

**Enable  
(0x01)**

### Input Setting Code Password

2 Password, From 0-9

Parameter # 0xF3 0x05

Scan below barcode to input setting code password. Next scan two *Numeric Barcodes* in appendix that correspond to required password. Single digit numbers must have a leading zero. For example, input password 68, scan below barcode, then scan '6' and '8'. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.



**3F30000005**

## Modify Setting Code Password

You can only modify password when you enable Setting Code Password Mode.

### Parameter # 0xF3 0x06

Scan below barcode to modify setting code password. Next scan two *Numeric Barcodes* in appendix that correspond to new password. Single digit numbers must have a leading zero. For example, new password is 96, scan below barcode, then scan '9' and '6'. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.



## Logout Password

After logging out password, you should input password again when you need.

### Parameter # 0xF2 0xA9



## Linear Code Type Security Level

### Parameter # 0x4E

The scan engine offers four levels of decode security for linear code types (e.g. Code 39, Interleaved 2 of 5). Select higher security levels for decreasing levels of barcode quality. As security levels increase, the scan engine's aggressiveness decreases.

Select the security level appropriate for your barcode quality.

### Linear Security Level 1

The following code types must be successfully read twice before being decoded:



\* Linear Security Level 1  
(0x01)

表 3-1 Table 3-2

Code Type	Length
Codabar	All
MSI	4 or less
D 2 of 5	8 or less
I 2 of 5	8 or less

### Linear Security Level 2

All code types must be successfully read twice before being decoded.



Linear Security Level 2  
(0x02)

### Linear Security Level 3

Code types other than the following must be successfully read twice before being decoded. The following codes must be read three times:



Table 3-3

Code Type	Length
MSI	4 or less
D 2 of 5	8 or less
I 2 of 5	8 or less

### Linear Security Level 4

All code types must be successfully read three times before being decoded.



### 1D identifies two barcodes

1D barcode scan engine identifies two barcodes at the same time , There must be two barcodes read at the same time otherwise reading failure (setting code can only be read one).

Parameter # 0xF2 0x10



### 1D Inverse Barcode Reading

Parameter # 0xF2 0x91





\* Disable  
(0x00)



3030911  
Enable  
(0x01)

## Barcode Global Switch

### 1D Global Switch

Parameter # 0xF2 0x11



3030110  
Disable  
(0x00)



3030111  
Enable  
(0x01)

### 2D Global Switch

Parameter # 0xF2 0x50



3030500  
Disable  
(0x00)



3030501  
Enable  
(0x01)

### All Barcode Switch

Parameter # 0xF2 0x90



**3030900**

**Disable  
(0x00)**



**3030901**

**Enable  
(0x01)**

## UPC-A

### Enable/Disable UPC-A

#### Parameter # 0x01

To enable or disable UPC-A, scan the appropriate barcode below.



**1 0000 11**  
\* Enable UPC-A  
(0x01)



**1 0000 10**  
Disable UPC-A  
(0x00)

### UPC-A Preamble

#### Parameter # 0x22

Preamble characters (Country Code and System Character) can be transmitted as part of a UPC-A symbol. Select one of the following options for transmitting UPC-A preamble to the host device: transmit system character only, transmit system character and country code ("0" for USA), or transmit no preamble.



**2030 100**  
No Preamble  
(<DATA>  
(0x00)



**2030 101**  
\* System Character  
(<SYSTEM CHARACTER> <DATA>  
(0x01)



**2030 102**  
System Character & Country Code  
(< COUNTRY CODE> <SYSTEM CHARACTER><DATA>  
(0x02)

## Transmit UPC-A Check Digit

Parameter # 0x28

Scan the appropriate barcode below to transmit the symbol with or without the UPC-A check digit.



1 020021

\* Transmit UPC-A Check Digit  
(0x01)



1 020020

Do Not Transmit UPC-A Check Digit  
(0x00)

## UPC-A 2-bits Supplementals

Parameter # 0xF2 0x40



3030401

Enable  
(0x01)



3030400

\* Disable  
(0x00)

## UPC-A 5-bits Supplementals

Parameter # 0xF2 0x41



3030411

Enable  
(0x01)



3030410

\* Disable  
(0x00)

## UPC-A Read Supplementals

Parameter # 0xF2 0x42



3030421

Enable

(0x01)



3030420

\* Disable

(0x00)

## UPC-E

### Enable/Disable UPC-E

Parameter # 0x02

To enable or disable UPC-E, scan the appropriate barcode below.



1 000021

\* Enable UPC-E

(0x01)



1 000020

Disable UPC-E

(0x00)

### UPC-E Preamble

Parameter # 0x23

Preamble characters (Country Code and System Character) can be transmitted as part of a UPC-E symbol. Select one of the following options for transmitting UPC-E preamble to the host device: transmit system character only, transmit system character and country code ("0" for USA), or transmit no preamble.



2030000

No Preamble

(<DATA>)

(0x00)



2030001

\* System Character  
(<SYSTEM CHARACTER> <DATA>  
(0x01)



2030002

System Character & Country Code  
(< COUNTRY CODE> <SYSTEM CHARACTER><DATA>  
(0x02)

### Transmit UPC-E Check Digit

Parameter # 0x29

Scan the appropriate barcode below to transmit the symbol with or without the UPC-E check digit.



1020031

\* Transmit UPC-E Check Digit  
(0x01)



1020030

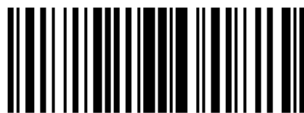
Do Not Transmit UPC-E Check Digit  
(0x00)

### Convert UPC-E to UPC-A

Parameter # 0x25

Enable this parameter to convert UPC-E (zero suppressed) decoded data to UPC-A format before transmission. After conversion, data follows UPC-A format and is affected by UPC-A programming selections (e.g., Preamble, Check Digit).

Scan **DO NOT CONVERT UPC-E TO UPC-A** to transmit UPC-E (zero suppressed) decoded data.



1020001

Convert UPC-E to UPC-A  
(0x01)



1020000

\* Do Not Convert UPC-E to UPC-A  
(0x00)

### UPC-E 2-bits Supplementals

Parameter # 0xF2 0x3D



30303D1

Enable  
(0x01)



30303D0

\* Disable  
(0x00)

### UPC-E 5-bits Supplementals

Parameter # 0xF2 0x3E



30303E1

Enable  
(0x01)



30303E0

\* Disable  
(0x00)

### UPC-E Read Supplementals

Parameter # 0xF2 0x3F



30303F1

Enable  
(0x01)



30303F0

\* Disable

(0x00)

### UPC-E1

Parameter # 0xF2 0x15



3030150

\* Disable

(0x00)



3030151

Enable

(0x01)

### EAN-8

#### Enable/Disable EAN-8

Parameter # 0x04

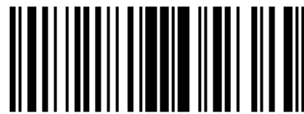
To enable or disable EAN-8, scan the appropriate barcode below.



1 000041

\* Enable EAN-8

(0x01)



1 000040

Disable EAN-8

(0x00)

#### EAN-8 Zero Extend

Parameter # 0x27

When enabled, this parameter adds five leading zeros to decoded EAN-8 symbols to make them compatible in format to EAN-13 symbols.

Disable this parameter to transmit EAN-8 symbols as is.





1020011

Enable EAN-8 Zero Extend  
(0x01)



1020010

\* Disable EAN-8 Zero Extend  
(0x00)

### EAN-8 2-bits Supplementals

Parameter # 0xF2 0x37



3030371

Enable  
(0x01)



3030370

\* Disable  
(0x00)

### EAN-8 5-bits Supplementals

Parameter # 0xF2 0x38



3030381

Enable  
(0x01)



3030380

\* Disable  
(0x00)

### EAN-8 Read Supplementals

Parameter # 0xF2 0x39



3030391

Enable  
(0x01)



3030390

\* Disable  
(0x00)

**EAN-8 Transmit Check Digit**  
Parameter # 0xF2 0x80



3030800

Disable  
(0x00)



3030801

\*Enable  
(0x01)

**EAN-13**

**Enable/Disable EAN-13**

Parameter # 0x03

To enable or disable EAN-13, scan the appropriate barcode below.



1000031

\* Enable EAN-13  
(0x01)



1000030

Disable EAN-13  
(0x00)

### EAN-13 2-bits Supplementals

Parameter # 0xF2 0x3A



### EAN-13 5-bits Supplementals

Parameter # 0xF2 0x3B



### EAN-13 Read Supplementals

Parameter # 0xF2 0x3C



\* Disable  
(0x00)

### EAN-13 Transmit Check Digit Parameter # 0xF2 0x16



### Enable/Disable Bookland EAN(ISBN)

Parameter # 0x53

To enable or disable EAN Bookland, scan the appropriate barcode below.



### Bookland ISBN Format

Parameter # 0xF1 0x40

If you enabled Bookland EAN using [Enable/Disable Bookland EAN](#) , select one of the following formats for Bookland data:

**Bookland ISBN-10** - The scan engine reports Bookland data starting with 978 in traditional 10-digit format with the special Bookland check digit for backward-compatibility. Data starting with 979 is not considered Bookland in this mode.

**Bookland ISBN-13** - The scan engine reports Bookland data (starting with either 978 or 979) as EAN-13 in 13-digit format to meet the 2007 ISBN-13 protocol.



**N02400**

**\*Bookland ISBN-10  
(0x00)**



**N02401**

**Bookland ISBN-13  
(0x01)**

**NOTE** :For Bookland EAN to function properly, first enable Bookland EAN using [Enable/Disable Bookland EAN](#), then select either Decode UPC/EAN Supplementals, Autodiscriminate UPC/EAN Supplementals, or Enable 978/979 Supplemental Mode in [Decode UPC/EAN Supplementals](#) .

## Decode UPC/EAN Supplementals

### Parameter # 0x10

Supplementals are barcodes appended according to specific format conventions (e.g.UPC A+2, UPC E+2, EAN 13+2, EAN 13+5). The following options are available:

- **Do not read supplementals** – The scan engine can only read the barcode no matter the barcode with supplementals or not.
- **Only read the barcode with supplementals**- The scan engine can only read the barcode with supplementals.
- **Auto read supplementals**- The scan engine can not only read the barcode with supplementals,but also read the barcode without supplementals.



**2010E00**

**\* Ignore UPC/EAN with Supplementals  
(0x00)**



**2010E01**

**Decode UPC/EAN with Supplementals  
(0x01)**



**2010E02**

**Autodiscriminate UPC/EAN Supplementals  
(0x02)**

## UPC/EAN Security Level

### Parameter # 0x4D

The scan engine offers four levels of decode security for UPC/EAN barcodes. Increasing levels of security are provided for decreasing levels of barcode quality. Increasing security decreases the scan engine's aggressiveness, so choose only that level of security necessary for the application.

### UPC/EAN Security Level 0

This default setting allows the scan engine to operate in its most aggressive state, while providing sufficient security in decoding most "in-spec" UPC/EAN barcodes.



### UPC/EAN Security Level 1

As barcode quality levels diminish, certain characters become prone to mis-decodes before others (i.e., 1, 2, 7, 8). If mis-decodes of poorly printed barcodes occur, and the mis-decodes are limited to these characters, select this security level.



### UPC/EAN Security Level 2

If mis-decodes of poorly printed barcodes occur, and the mis-decodes are not limited to characters 1, 2, 7, and 8, select this security level.



### UPC/EAN Security Level 3

If misdecodes still occur after selecting Security Level 2, select this security level. Be advised, selecting this option is an extreme measure against mis-decoding severely out of spec barcodes. Selection of this level of security significantly impairs the decoding ability of the scan engine. If this level of security is necessary, try to improve the quality of the barcodes.



## Code 128

Including AIM128 ,but the output type is different.

### Enable/Disable Code 128

Parameter # 0x08

To enable or disable Code 128, scan the appropriate barcode below.



1 0001 01

\* Enable Code 128  
(0x01)



1 0001 00

Disable Code 128  
(0x00)

### Transmit Check Digit

Parameter # 0xF2 0x35



3030351

Enable  
(0x01)



3030350

\* Disable  
(0x00)

### Set Lengths for Code 128

Parameter # L1=0xF5 0x04, L2=0xF5 0x05



F1118485F50000005

One Discrete Length



F2118485F50000005

Two Discrete Lengths



**F3118485F50000005**

Length Within Range



**F0118485F50000005**

Any Length

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

### Enable/Disable GS1-128 (formerly UCC/EAN-128)

Parameter # 0x0E

To enable or disable GS1-128, scan the appropriate barcode below.



**1040331**

\* Enable GS1-128  
(0x01)

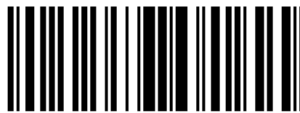


**1040330**

Disable GS1-128  
(0x00)

### UCC/EAN-128 Transmit Check Digit

Parameter # 0xF2 0x36



**3030361**

Enable  
(0x01)



**3030360**

\* Disable  
(0x00)



## Set Lengths for UCC/EAN-128

Parameter # L1=0xF5 0x06, L2=0xF5 0x07



F118687F5000007

One Discrete Length



F2118687F5000007

Two Discrete Lengths



F3118687F5000007

Length Within Range



F0118687F5000007

Any Length

## ISBT 128

Parameter # 0x54

To enable or disable ISBT 128, scan the appropriate barcode below.



1000331

\* Enable ISBT 128  
(0x01)



1000330

Disable ISBT 128  
(0x00)

## Code 39

Enable/Disable Code 39

Parameter # 0x00

To enable or disable Code 39, scan the appropriate barcode below.



1 000001

\* Enable Code 39  
(0x01)



1 000000

Disable Code 39  
(0x00)

### Set Lengths for Code 39

Parameter # L1 = 0x12, L2 = 0x13

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for Code 39 may be set for any length, one or two discrete lengths, or lengths within a specific range. If Code 39 Full ASCII is enabled, **Length Within a Range** or **Any Length** are the preferred options. To set lengths via serial commands, see [Setting Code Lengths Via Serial Commands](#).

**NOTE** :When setting lengths, single digit numbers must always be preceded by a leading zero.

**One Discrete Length** - This option limits decodes to only those Code 39 symbols containing a selected length. Lengths are selected from the [Numeric Barcodes](#) in appendix. For example, to decode only Code 39 symbols with 14 characters, scan **Code 39 - One Discrete Length**, then scan **1** followed by **4**. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



1 0100010137000C

Code 39 - One Discrete Length

**Two Discrete Lengths** - This option limits decodes to only those Code 39 symbols containing either of two selected lengths. Lengths are selected from the [Numeric Barcodes](#) in appendix. For example, to decode only those Code 39 symbols containing either 2 or 14 characters, select **Code 39 - Two Discrete Lengths**, then scan **0, 2, 1**, and then **4**. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



20100010037000C

Code 39 - Two Discrete Lengths

**Length Within Range** - This option limits decodes to only those Code 39 symbols within a specified range. For example, to decode Code 39 symbols containing between 4 and 12 characters, first scan **Code 39 - Length Within Range**. Then scan **0, 4, 1**, and **2** according to [Numeric Barcodes](#) in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



30100010137000C

## Code 39 - Length Within Range

**Any Length** - Scan this option to decode Code 39 symbols containing any number of characters.



## Code 39 Check Digit Verification

**Parameter # 0x30**

When this feature is enabled, the scan engine checks the integrity of all Code 39 symbols to verify that the data complies with specified check digit algorithm. Only those Code 39 symbols which include a modulo 43 check digit are decoded. Only enable this feature if your Code 39 symbols contain a module 43 check digit.



## Transmit Code 39 Check Digit

**Parameter # 0x2B**

Scan this symbol to transmit the check digit with the data.



Scan this symbol to transmit data without the check digit.



## Enable/Disable Code 39 Full ASCII

**Parameter # 0x11**

Code 39 Full ASCII is a variant of Code 39 which pairs characters to encode the full ASCII character set. To enable or disable Code 39 Full ASCII, scan the appropriate barcode below.

See [Table 4-3](#) for the mapping of Code 39 characters to ASCII values.



1020111

Enable Code 39 Full ASCII  
(0x01)



1020110

\* Disable Code 39 Full ASCII  
(0x00)

**NOTE** :Trioptic Code 39 and Code 39 Full ASCII cannot be enabled simultaneously. If you get an error beep when enabling Code 39 Full ASCII, disable Trioptic Code 39 and try again.

### Code 39 Transport Start Character and Terminator

Parameter # 0xF2 0x30



3030300

\* Disable  
(0x00)



3030301

Enable  
(0x01)

### Code 39 bigcode

Parameter # 0xF2 0x27

Currently only 1D products support the barcode.



3030271

Enable  
(0x01)



3030270

**\* Disable**  
**(0x00)**

### **Convert Code 39 to Code 32 (Italian Pharma Code)**

**Parameter # 0x56**

Code 32 is a variant of Code 39 used by the Italian pharmaceutical industry. Scan the appropriate barcode below to enable or disable converting Code 39 to Code 32.



**1020300**

**\* Disable**  
**(0x00)**



**1020301**

**Enable**  
**(0x01)**

### **Code 32 Prefix**

**Parameter # 0xE7**

Enable this parameter to add the prefix character “A” to all Code 32 barcodes. Convert Code 39 to Code 32(Italian Pharma Code) must be enabled for this parameter to function.



**1020320**

**\* Disable**  
**(0x00)**



**1020321**

**Enable**  
**(0x01)**

### **Code 32 Check Digit Verification**

**Parameter # 0xF2 0x19**



**3030190**

**\* Disable**  
**(0x00)**



**3030191**

**Enable  
(0x01)**

### Transmit Code 32 Check Digit

Parameter # 0xF2 0x1A



**30301A0**

**\*Transmit Check Digit  
(0x00)**



**30301A1**

**Transmit Start Character, Stop Character, Check Digit  
(0x01)**

## Code 93

### Enable/Disable Code 93

Parameter # 0x09

To enable or disable Code 93, scan the appropriate barcode below.



**1000111**

**Enable Code 93  
(0x01)**



**1000110**

**\* Disable Code 93  
(0x00)**

### Set Lengths for Code 93

Parameter # L1 = 0x1A, L2 = 0x1B

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for Code 93 may be set for any length, one or two discrete lengths, or lengths within a specific range. To set lengths via serial commands, see [Setting Code Lengths Via Serial Commands](#).

**One Discrete Length** - Select this option to decode only those codes containing a selected length. For example, select **Code 93 One Discrete Length**, then scan **1, 4**, to limit the decoding to only Code 93 symbols containing 14 characters. *Numeric Barcodes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.



**F1010A0B023700011**

**Code 93 - One Discrete Length**

**Two Discrete Lengths** - Select this option to decode only those codes containing two selected lengths. For example, select **Code 93 Two Discrete Lengths**, then scan **0, 2, 1, 4**, to limit the decoding to only Code 93 symbols containing 2 or 14 characters. *Numeric Barcodes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.



**F2010A0B023700011**

**Code 93 - Two Discrete Lengths**

**Length Within Range** - This option sets the unit to decode a code type within a specified range. For example, to decode Code 93 symbols containing between 4 and 12 characters, first scan **Code 93 Length Within Range**, then scan **0, 4, 1** and **2** (single digit numbers must always be preceded by a leading zero). *Numeric Barcodes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix..



**F3010A0B023700011**

**Code 93 - Length Within Range**

**Any Length** - Scan this option to decode Code 93 symbols containing any number of characters.



**F0010A0B023700011**

**Code 93 - Any Length**

**Code 93 Check**

Parameter # 0xF2 0x4A



**30304A1**

\* Enable  
(0x01)



**30304A0**

Disable  
(0x00)

**Transmit Code 93 Check Digit**  
Parameter # 0xF2 0x4B



## Code 11

**Enable/Disable Code 11**  
Parameter # 0x0A

To enable or disable Code 11, scan the appropriate barcode below.



**Set Lengths for Code 11**

Parameter # L1 = 0x1C, L2 = 0x1D

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Set lengths for Code 11 to any length, one or two discrete lengths, or lengths within a specific range.

**One Discrete Length** - Select this option to decode only Code 11 symbols containing a selected length. Select the length using the *Numeric Barcodes* in appendix. For example, to decode only Code 11 symbols with 14 characters, scan **Code 11 - One Discrete Length**, then scan **1** followed by **4**. To correct an error or to change the selection, scan *Cancel* in appendix.

**Two Discrete Lengths** - Select this option to decode only Code 11 symbols containing either of two selected lengths. Select lengths using the *Numeric Barcodes* in appendix. For example, to decode only those Code 11 symbols containing either 2 or 14 characters, select **Code 11 - Two Discrete Lengths**, then scan **0**, **2**, **1**, and then **4**. To correct an error or to change the selection, scan *Cancel* in appendix.



**Length Within Range** - Select this option to decode a Code 11 symbol with a specific length range. Select lengths using the *Numeric Barcodes* in appendix. For example, to decode Code 11 symbols containing between 4 and 12 characters, first scan **Code 11 - Length Within Range**. Then scan **0, 4, 1, and 2** (single digit numbers must always be preceded by a leading zero). To correct an error or change the selection, scan *Cancel* in appendix.

**Any Length** - Scan this option to decode Code 11 symbols containing any number of characters within the scan engine capability.



### Code 11 Check Digit Verification

#### Parameter # 0x34

This feature allows the scan engine to check the integrity of all Code 11 symbols to verify that the data complies with the specified check digit algorithm. This selects the check digit mechanism for the decoded Code 11 barcode. The options are to check for one check digit, check for two check digits, or disable the feature.

To enable this feature, scan the barcode below corresponding to the number of check digits encoded in your Code 11 symbols.





2051201  
One Check Digit  
(0x01)

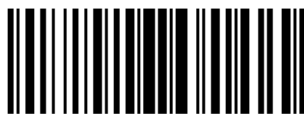


2051202  
Two Check Digits  
(0x02)

### Transmit Code 11 Check Digit

Parameter # 0x2F

This feature selects whether or not to transmit the Code 11 check digit.



1020141  
Transmit Code 11 Check Digit  
(0x01)



1020140  
\* Do Not Transmit Code 11 Check Digit  
(0x00)

**NOTE:** Code 11 Check Digit Verification must be enabled for this parameter to function.

### Interleaved 2 of 5/ITF/交叉 25 码

#### Enable/Disable Interleaved 2 of 5

Parameter # 0x06

To enable or disable Interleaved 2 of 5, scan the appropriate barcode below.



1000061  
\* Enable Interleaved 2 of 5  
(0x01)



1000060  
Disable Interleaved 2 of 5

(0x00)

## Set Lengths for Interleaved 2 of 5

Parameter # L1 = 0x16, L2 = 0x17

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for I 2 of 5 may be set for any length, one or two discrete lengths, or lengths within a specific range. To set lengths via serial commands, see [Setting Code Lengths Via Serial Commands](#).

**NOTE:** When setting lengths, single digit numbers must always be preceded by a leading zero.

**One Discrete Length** - Select this option to decode only those codes containing a selected length. For example, select **I 2 of 5 One Discrete Length**, then scan **1, 4**, to decode only I 2 of 5 symbols containing 14 characters. [Numeric Barcodes](#) is in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



**Two Discrete Lengths** - Select this option to decode only those codes containing two selected lengths. For example, select **I 2 of 5 Two Discrete Lengths**, then scan **0, 6, 1, 4**, to decode only I 2 of 5 symbols containing 6 or 14 characters. [Numeric Barcodes](#) is in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



**Length Within Range** - Select this option to decode only codes within a specified range. For example, to decode I 2 of 5 symbols containing between 4 and 12 characters, first scan **I 2 of 5 Length Within Range**, then scan **0, 4, 1** and **2** (single digit numbers must always be preceded by a leading zero). [Numeric Barcodes](#) is in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



**Any Length** - Scan this option to decode I 2 of 5 symbols containing any number of characters.

**NOTE:** Selecting this option may lead to misdecodes for I 2 of 5 codes.



## I 2 of 5 Check Digit Verification

Parameter # 0x31

When enabled, this parameter checks the integrity of an I 2 of 5 symbol to ensure it complies with a specified algorithm, either USS (Uniform Symbology Specification), or OPCC (Optical Product Code Council).



2051E00

\* Disable  
(0x00)



2051E01

Enable  
(0x01)

### Transmit I 2 of 5 Check Digit

Parameter # 0x2C

Scan this symbol to transmit the check digit with the data.



1020211

Transmit I 2 of 5 Check Digit  
(0x01)

Scan this symbol to transmit data without the check digit.



1020210

\*Do Not Transmit I 2 of 5 Check Digit  
(0x00)

### ITF14

Parameter # 0xF2 0x43



3030431

Enable  
(0x01)



3030430

\* Disable  
(0x00)

## Transmit ITF14 Check Digit

Parameter # 0xF2 0x44



3030441

Enable

(0x01)



3030440

\* Disable

(0x00)

## Discrete 2 of 5/Industrial 2 of 5/IND25/工业 25 码

### Enable/Disable Discrete 2 of 5

Parameter # 0x05

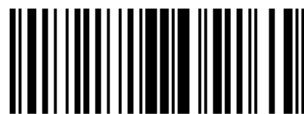
To enable or disable Discrete 2 of 5, scan the appropriate barcode below.



1000051

Enable Discrete 2 of 5

(0x01)



1000050

\* Disable Discrete 2 of 5

(0x00)

### Set Lengths for Discrete 2 of 5

Parameter # L1 = 0x14, L2 = 0x15

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for D 2 of 5 may be set for any length, one or two discrete lengths, or lengths within a specific range. To set lengths via serial commands, see [Setting Code Lengths Via Serial Commands](#).

**One Discrete Length** - Select this option to decode only those codes containing a selected length. For example, select **D 2 of 5 One Discrete Length**, then scan 1, 4, to decode only D 2 of 5 symbols containing 14 characters. [Numeric Barcodes](#) is in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



10106070237000C

## D 2 of 5 - One Discrete Length

**Two Discrete Lengths** - Select this option to decode only those codes containing two selected lengths. For example, select **D 2 of 5 Two Discrete Lengths**, then scan **0, 2, 1, 4**, to decode only D 2 of 5 symbols containing 2 or 14 characters. *Numeric Barcodes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.



**Length Within Range** - Select this option to decode codes within a specified range. For example, to decode D 2 of 5 symbols containing between 4 and 12 characters, first scan **D 2 of 5 Length Within Range**, then scan **0, 4, 1** and **2** (single digit numbers must be preceded by a leading zero). *Numeric Barcodes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.



**Any Length** - Scan this option to decode D 2 of 5 symbols containing any number of characters. **NOTE:** Selecting this option may lead to misdecodes for D 2 of 5 codes.



## Discrete 2 of 5 Check Parameter # 0xF2 0x48



## Transmit Discrete 2 of 5 Check Digit Parameter # 0xF2 0x49



**3030491**

**Enable  
(0x01)**



**3030490**

**\* Disable  
(0x00)**

## **Matrix 25**

### **Enable/Disable Matrix 25**

**Parameter # 0xF2 0x20**

To enable or disable Matrix 25, scan the appropriate barcode below.



**3030201**

**Enable Matrix 25  
(0x01)**



**3030200**

**\* Disable Matrix 25  
(0x00)**

### **Matrix 25 Check Digit Verification**

**Parameter # 0xF2 0x21**



**3030211**

**Enable Matrix 25 Check Digit Verification  
(0x01)**



**3030210**

**\*Disable Matrix 25 Check Digit Verification  
(0x00)**

## Transmit Matrix 25 Check Digit

Parameter # 0xF2 0x22



3030221

Enable Matrix 25 Transmit Check Character  
(0x01)



3030220

\* Disable Matrix 25 Transmit Check Character  
(0x00)

## Set Lengths for Matrix 25

Parameter # L1=0xF5 0x00, L2=0xF5 0x01

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for Matrix 25 may be set for any length, one or two discrete lengths, or lengths within a specific range. To set lengths via serial commands, see [Setting Code Lengths Via Serial Commands](#).

**One Discrete Length** - Select this option to decode only those codes containing a selected length. For example, select **Matrix 25 One Discrete Length**, then scan **1, 4**, to decode only Matrix 25 symbols containing 14 characters. [Numeric Barcodes](#) is in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



F1118081F5000001

Matrix 25 - One Discrete Length

**Two Discrete Lengths** - Select this option to decode only those codes containing two selected lengths. For example, select **Matrix 25 Two Discrete Lengths**, then scan **0, 2, 1, 4**, to decode only Matrix 25 symbols containing 2 or 14 characters. [Numeric Barcodes](#) is in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



F2118081F5000001

Matrix 25 - Two Discrete Lengths

**Length Within Range** - Select this option to decode codes within a specified range. For example, to decode Matrix 25 symbols containing between 4 and 12 characters, first scan **Matrix 25 Length Within Range**, then scan **0, 4, 1** and **2** (single digit numbers must be preceded by a leading zero). [Numeric Barcodes](#) is in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



F3118081F5000001

Matrix 25 - Length Within Range



**Any Length** - Scan this option to decode Matrix 25 symbols containing any number of characters.  
**NOTE:** Selecting this option may lead to misdecodes for Matrix 25 codes.



## Standard 25/IATA 25(标准 25)

### Enable/Disable Standard 25

Parameter # 0xF2 0x23

To enable or disable Standard 25, scan the appropriate barcode below.



### Standard 25 Check Digit Verification

Parameter # 0xF2 0x24



### Transmit Check Digit

Parameter # 0xF2 0x25



**\* Disable Standard 25 Transmit Check Character  
(0x00)**



**3030251**

**Enable Standard 25 Transmit Check Character  
(0x01)**

### **Set Lengths for Standard 25**

**Parameter # L1=0xF5 0x02, L2=0xF5 0x03**

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for Standard 25 may be set for any length, one or two discrete lengths, or lengths within a specific range. To set lengths via serial commands, see [Setting Code Lengths Via Serial Commands](#).

**One Discrete Length** - Select this option to decode only those codes containing a selected length. For example, select **Standard 25 One Discrete Length**, then scan **1, 4**, to decode only Standard 25 symbols containing 14 characters. [Numeric Barcodes](#) is in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



**F 1 1 1 8 2 8 3 F 5 0 0 0 0 0 0 3**

**Standard 25 - One Discrete Length**

**Two Discrete Lengths** - Select this option to decode only those codes containing two selected lengths. For example, select **Standard 25 Two Discrete Lengths**, then scan **0, 2, 1, 4**, to decode only Standard 25 symbols containing 2 or 14 characters. [Numeric Barcodes](#) is in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



**F 2 1 1 8 2 8 3 F 5 0 0 0 0 0 0 3**

**Standard 25 - Two Discrete Lengths**

**Length Within Range** - Select this option to decode codes within a specified range. For example, to decode Standard 25 symbols containing between 4 and 12 characters, first scan **Standard 25 Length Within Range**, then scan **0, 4, 1** and **2** (single digit numbers must be preceded by a leading zero). [Numeric Barcodes](#) is in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



**F 3 1 1 8 2 8 3 F 5 0 0 0 0 0 0 3**

**Standard 25 - Length Within Range**

**Any Length** - Scan this option to decode Standard 25 symbols containing any number of characters.

**NOTE:** Selecting this option may lead to misdecodes for Standard 25 codes.



**F 0 1 1 8 2 8 3 F 5 0 0 0 0 0 0 3**

## Standard 25 - Any Length

### Codabar

#### Enable/Disable Codabar

Parameter # 0x07

To enable or disable Codabar, scan the appropriate barcode below.



1 0 0 0 0 7 1  
Enable Codabar  
(0x01)



1 0 0 0 0 7 0  
\* Disable Codabar  
(0x00)

#### Set Lengths for Codabar

Parameter # L1 = 0x18, L2 = 0x19

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for Codabar may be set for any length, one or two discrete lengths, or lengths within a specific range. To set lengths via serial commands, see [Setting Code Lengths Via Serial Commands](#).

**One Discrete Length** - Select this option to decode only those codes containing a selected length. For example, select **Codabar One Discrete Length**, then scan **1, 4**, to decode only Codabar symbols containing 14 characters. [Numeric Barcodes](#) is in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



1 0 1 0 2 0 3 0 2 3 7 0 0 0 C  
Codabar - One Discrete Length

**Two Discrete Lengths** - This option sets the unit to decode only those codes containing two selected lengths. For example, select **Codabar Two Discrete Lengths**, then scan **0, 2, 1, 4**, to decode only Codabar symbols containing 6 or 14 characters. [Numeric Barcodes](#) is in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



2 0 1 0 2 0 3 0 2 3 7 0 0 0 C  
Codabar - Two Discrete Lengths

**Length Within Range** - Select this option to decode a code within a specified range. For example, to decode Codabar symbols containing between 4 and 12 characters, first scan **Codabar Length Within**

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



**Any Length** - Scan this option to decode Codabar symbols containing any number of characters.



### Codabar Check

Parameter # 0xF2 0x4C



### Transmit Codabar Check Digit

Parameter # 0xF2 0x4D



## NOTIS Editing

### Parameter # 0x37

When enabled, this parameter strips the start and stop characters from decoded Codabar symbol.



1 020061  
Enable NOTIS Editing  
(0x01)



1 020060  
\* Disable NOTIS Editing  
(0x00)

## Start Character and Terminator

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

### Parameter # 0xF2 0x31



3030310  
\*ABCD/ABCD  
(0x00)



3030311  
ABCD/TN\*E  
(0x01)

## Letter Case Setting of Start Character and Terminator

### Parameter # 0xF2 0x32



3030320  
\* Uppercase  
(0x00)



3030321

Lowercase  
(0x01)

## MSI/MSI PLESSEY

### Enable/Disable MSI

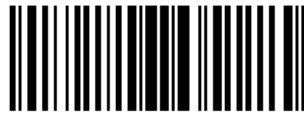
Parameter # 0x0B

To enable or disable MSI, scan the appropriate barcode below.



1000141

Enable MSI  
(0x01)



1000140

\* Disable MSI  
(0x00)

### Set Lengths for MSI

Parameter # L1 = 0x1E, L2 = 0x1F

The length of a code refers to the number of characters (i.e., human readable characters) the code contains, and includes check digits. Lengths for MSI can be set for any length, one or two discrete lengths, or lengths within a specific range. See [Table 4-3](#) for ASCII equivalents. To set lengths via serial commands, see [Setting Code Lengths Via Serial Commands](#).

**One Discrete Length** - Select this option to decode only those codes containing a selected length. For example, select **MSI Plessey One Discrete Length**, then scan **1, 4**, to decode only MSI Plessey symbols containing 14 characters. [Numeric Barcodes](#) is in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



F1010F10013700014

MSI - One Discrete Length

**Two Discrete Lengths** - Select this option to decode only those codes containing two selected lengths. For example, select **MSI Plessey Two Discrete Lengths**, then scan **0, 6, 1, 4**, to decode only MSI Plessey symbols containing 6 or 14 characters. [Numeric Barcodes](#) is in appendix. To change the selection or cancel an incorrect entry, scan [Cancel](#) in appendix.



F2010F10013700014

## MSI - Two Discrete Lengths

**Length Within Range** - Select this option to decode codes within a specified range. For example, to decode MSI symbols containing between 4 and 12 characters, first scan **MSI Length Within Range**, then scan **0, 4, 1** and **2** (single digit numbers must always be preceded by a leading zero). *Numeric Barcodes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.



**Any Length** - Scan this option to decode MSI Plessey symbols containing any number of characters.  
**NOTE:** Selecting this option may lead to misdecodes for MSI codes.



## MSI Check Digits

### Parameter # 0x32

These check digits at the end of the barcode verify the integrity of the data. At least one check digit is always required. Check digits are not automatically transmitted with the data.



If two check digits are selected, also select an *MSI Check Digit Algorithm*.



## Transmit MSI Check Digit

### Parameter # 0x2E

Scan this symbol to transmit the check digit with the data.



Scan this symbol to transmit data without the check digit.



1 020130

\* Do Not Transmit MSI Check Digit  
(0x00)

### MSI Check Digit Algorithm

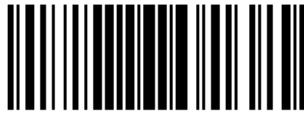
Parameter # 0x33

When the Two MSI check digits option is selected, an additional verification is required to ensure integrity. Select one of the following algorithms:



1 020230

MOD 10/ MOD 11  
(0x00)



1 020231

\*MOD 10/ MOD 10  
(0x01)

### GS1 DataBar/RSS

#### Enable/Disable GS1 DataBar-14

Parameter # 0xF0 0x52

To enable or disable GS1 DataBar-14, scan the appropriate barcode below.



1 000351

Enable GS1 DataBar-14  
(0x01)



1 000350

\* Disable GS1 DataBar-14  
(0x00)

#### Enable/Disable GS1 DataBar Limited

Parameter # 0xF0 0x53

To enable or disable GS1 DataBar Limited, scan the appropriate barcode below.





1 000361

Enable GS1 DataBar Limited  
(0x01)



1 000360

\* Disable GS1 DataBar Limited  
(0x00)

### Enable/Disable GS1 DataBar Expanded

Parameter # 0xF0 0x54

To enable or disable GS1 DataBar Expanded, scan the appropriate barcode below.



1 000371

Enable GS1 DataBar Expanded  
(0x01)



1 000370

\* Disable GS1 DataBar Expanded  
(0x00)

### RSS AI Character

Parameter # 0xF2 0x26



3030261

\* Enable  
(0x01)



3030260

Disable  
(0x00)

## PDF417

Scan normal or mirror image picture.

### Enable/Disable PDF417

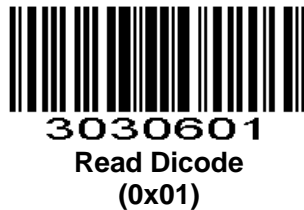
Parameter # 0x0F

To enable or disable PDF417, scan the appropriate barcode below.



### Read Multi-code

Parameter # 0xF2 0x60



### Read Normal Phase/ Phase Reversal

Parameter # 0xF2 0x61



**3030610**  
\* Read Normal Phase  
(0x00)



**3030611**  
Read Phase Reversal  
(0x01)



**3030612**  
Read Normal Phase/ Phase Reversal  
(0x02)

## QR

Read normal phase/ phase reversal/ mirror image picture

### Enable/Disable QR

Parameter # 0xF0 0x25

To enable or disable QR, scan the appropriate barcode below.



**1003250**  
Disable QRCode  
(0x00)



**1003251**  
\* Enable QRCode  
(0x01)

### Read Multi-code

Parameter # 0xF2 0x65



3030650

\* Read Monocode  
(0x00)



3030651

Read Dicode  
(0x01)



3030652

Read Monocode / Dicode  
(0x02)

### ECI Control

Parameter # 0xF2 0x66



3030660

\* Not Output ECI  
(0x00)



3030661

Output ECI  
(0x01)

### QR Read Normal Phase/ Phase Reversal

Parameter # 0xF2 0x67



3030670

\* Read Normal Phase  
(0x00)



**3030671**  
Read Phase Reversal  
(0x01)



**3030672**  
Read Normal Phase/ Phase Reversal  
(0x02)

## Data Matrix(DM)

Scan normal or mirror image picture.

### Enable/Disable Data Matrix(DM)

Parameter # 0xF0 0x24

To enable or disable Data Matrix(DM), scan the appropriate barcode below.



**1003240**  
Disable DataMatrix  
(0x00)



**1003241**  
\* Enable DataMatrix  
(0x01)

### Read Multi-code

Parameter # 0xF2 0x6A



**30306A0**  
\* Read Monocode  
(0x00)



**30306A1**

Read Dicode  
(0x01)



**30306A2**

Read Monocode /Dicode  
(0x02)

### Read Normal Phase/ Phase Reversal

Parameter # 0xF2 0x6B



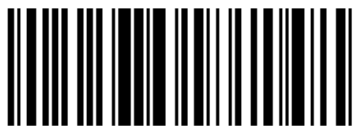
**30306B0**

\* Read Normal Phase  
(0x00)



**30306B1**

Read Phase Reversal  
(0x01)



**30306B2**

Read Normal Phase/ Phase Reversal  
(0x02)

### ECI Control

Parameter # 0xF2 0x6C



**30306C0**

\* Not Output ECI  
(0x00)



**30306C1**

**Output ECI  
(0x01)**

## Maxi Code

### Enable/Disable Maxi Code

Parameter # 0xF0 0x26

To enable or disable Maxi Code, scan the appropriate barcode below.



**1 003260**

**\* Disable MaxiCode  
(0x00)**



**1 003261**

**Enable MaxiCode  
(0x01)**

## Aztec Code

### Enable/Disable Aztec Code

Parameter # 0xF0 0x28

To enable or disable Aztec Code, scan the appropriate barcode below.



**1 003280**

**\* Disable Aztec Code  
(0x00)**



**1 003281**

**Enable Aztec Code  
(0x01)**

## Han Xin Code

### Enable/Disable Han Xin Code

Parameter # 0xF0 0x2F

To enable or disable Han Xin Code, scan the appropriate barcode below.



**10032F0**

**\* Disable Han Xin Code  
(0x00)**



**10032F1**

**Enable Han Xin Code  
(0x01)**

### **Read Multi-code**

**Parameter # 0xF2 0x70**



**3030700**

**\* Read Monocode  
(0x00)**



**3030701**

**Read Dicode  
(0x01)**



**3030702**

**Read Monocode /Dicode  
(0x02)**

### **Read Normal Phase/ Phase Reversal**

**Parameter # 0xF2 0x71**



**3030710**

**\* Read Normal Phase  
(0x00)**





**3030711**  
Read Phase Reversal  
(0x01)



**3030712**  
Read Normal Phase/ Phase Reversal  
(0x02)

## ISSN

ISSN turns to EAN13 when it's disabled.  
Parameter # 0xF2 0x33



**3030330**  
\* Disable  
(0x00)



**3030331**  
Enable  
(0x01)

## PLESSEY

**PLESSEY**  
Parameter # 0xF2 0x34



**3030340**  
\* Disable  
(0x00)



3030341

Enable  
(0x01)

### PLESSEY Check

Parameter # 0xF2 0x3E



30304E1

Enable  
(0x01)



30304E0

\* Disable  
(0x00)

### Transmit PLESSEY Check Digit

Parameter # 0xF2 0x4F



30304F1

Enable  
(0x01)



30304F0

\* Disable  
(0x00)

## AIM128

### AIM128

Only for 1D;For 2D, AIM128 merges with CODE128.

Parameter # 0xF2 0x29



3030291

Enable  
(0x01)



3030290

\* Disable  
(0x00)

### Transmit AIM128 Check Digit

Only for 1D;For 2D, AIM128 merges with CODE128.

Parameter # 0xF2 0x2A



30302A1

Enable  
(0x01)



30302A0

\* Disable  
(0x00)

### Set Lengths for AIM128

Parameter # L1=0xF5 0x0A, L2=0xF5 0x0B

Only for 1D;For 2D, AIM128 merges with CODE128.



F1118A8BF5000000B

One Discrete Length



F2118A8BF5000000B

Two Discrete Lengths



F3118A8BF5000000B

Length Within Range



**F0118A8BF500000B**

Any Length

## DEU14

### DEU14

Only for 1D;For 2D, DEU14 merges with ITF.

Parameter # **0xF2 0x2B**



**30302B1**

Enable

(0x01)



**30302B0**

\* Disable

(0x00)

### Transmit DEU14 Check Digit

Only for 1D;For 2D, DEU14 merges with ITF.

Parameter # **0xF2 0x2C**



**30302C1**

\* Enable

(0x01)



**30302C0**

Disable

(0x00)

## DEU12

### DEU12

Only for 1D;For 2D, DEU12 merges with ITF.

Parameter # **0xF2 0x2D**



30302D1

Enable  
(0x01)



30302D0

\* Disable  
(0x00)

### Transmit DEU12 Check Digit

Only for 1D;For 2D, DEU12 merges with ITF.

Parameter # 0xF2 0x2E



30302E1

\* Enable  
(0x01)



30302E0

Disable  
(0x00)

### NEC-25(COOP25)

#### NEC-25(COOP25)

Parameter # 0xF2 0x45



3030451

Enable  
(0x01)



3030450

\* Disable  
(0x00)

**NEC-25(COOP25) Check**

Parameter # 0xF2 0x46



3030461

Enable  
(0x01)



3030460

\* Disable  
(0x00)

**Transmit NEC-25(COOP25) Check Digit**

Parameter # 0xF2 0x47



3030471

Enable  
(0x01)



3030470

\* Disable  
(0x00)

**Set Lengths for NEC-25(COOP 25)**

Parameter # L1=0xF5 0x08, L2=0xF5 0x09



F1118889F50000009

One Discrete Length



F2118889F50000009

Two Discrete Lengths



F3118889F5000009

Length Within Range



F0118889F5000009

Any Length

## Brazilian Bank Code

Parameter # 0xF2 0x28

Currently only 1D products support the barcode.



3030281

Enable

(0x01)



3030280

\* Disable

(0x00)

## COMPOSITE

### Enable/Disable COMPOSITE

Parameter # 0xF2 0x17



3030170

\*Disable

(0x00)



3030171

Enable

(0x01)

## EAN/UCC

**Enable/Disable EAN/UCC**  
Parameter # 0xF2 0x18



**3030180**

**\*Disable  
(0x00)**



**3030181**

**Enable  
(0x01)**



## 4. Appendix

**Table 4-1 Param Data Format**

Parameter Number	Data Format
0 through 0xEF	<param_num> <value>
0xF0, 0xF1, 0xF2	<extended parameter code> <param_num offset> <value>
0xF4	<WORD parameter><Parameter Number><Value : High Byte><Value : Low Byte> Or <WORD parameter><Extended parameter code><Parameter Number> <Value : High Byte><Value : Low Byte>

### Numeric Barcodes

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





## Cancel

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



## Setting Code Lengths Via Serial Commands

There are two lengths (L1 and L2) for each variable length code type.

Depending on the selected option, the scan engine decodes:

One discrete length barcode;

Two discrete length barcodes;

Barcodes within a range of lengths within the scan engine capability;

Any length of barcodes within the scan engine capability.

Table 4-2 lists the requirements for each option.

*Table 4-2 Setting Variable Code Lengths*

Code Length Option	L1 value	L2 value
One discrete length is decoded.	Discrete length to decode	0x00
Two discrete lengths is decoded.	Higher length value	Lower length value
Lengths within a range are decoded within the scan engine capability.	Lower length value	Higher length value
Any length barcode is decoded within the scan engine capability.	0x00	0x00

### Character Comparison Table

To append a prefix and suffixes to the decode data:

- 1、 Set the Scan Data Transmission Format (parameter 0xE2) to the desired option.
- 2、 Enter the required value(s) for Prefix (0x69), Suffix1 (0x68) or Suffix2 (0x6A) using the hex values for the desired ASCII value from [Table 4-3](#)

**Table 4-3 Character Equivalents**

Scan Value	Hex Value	Keyboard Function Key Operation	Keyboard Ctrl Combination Key
1000	00h	Null	CTRL 2
1001	01h	Keypad Enter	CTRL A
1002	02h	Caps lock	CTRL B
1003	03h	Right Arrow	CTRL C
1004	04h	Up Arrow	CTRL D
1005	05h	Null	CTRL E
1006	06h	Null	CTRL F
1007	07h	Enter	CTRL G
1008	08h	Left Arrow	CTRL H
1009	09h	Horizontal Tab	CTRL I
1010	0Ah	Down Arrow	CTRL J
1011	0Bh	Vertical Tab	CTRL K
1012	0Ch	Backspace	CTRL L
1013	0Dh	Enter	CTRL M
1014	0Eh	Insert	CTRL N
1015	0Fh	Esc	CTRL O
1016	10h	F11	CTRL P
1017	11h	Home	CTRL Q
1018	12h	Print Screen	CTRL R
1019	13h	Delete	CTRL S
1020	14h	tab+shift	CTRL T
1021	15h	F12	CTRL U
1022	16h	F1	CTRL V
1023	17h	F2	CTRL W

**Table 4-3 Character Equivalents(Continued)**

Scan Value	Hex Value	Keyboard Function Key Operation	Keyboard Ctrl Combination Key
1024	18h	F3	CTRL X
1025	19h	F4	CTRL Y
1026	1Ah	F5	CTRL Z
1027	1Bh	F6	CTRL [
1028	1Ch	F7	CTRL \
1029	1Dh	F8	CTRL ]
1030	1Eh	F9	CTRL 6
1031	1Fh	F10	CTRL -
1032	20h	Space	Space
1033	21h	/A	!
1034	22h	/B	'
1035	23h	/C	#
1036	24h	/D	\$
1037	25h	/E	%
1038	26h	/F	&
1039	27h	/G	'
1040	28h	/H	(
1041	29h	/I	)
1042	2Ah	/J	*
1043	2Bh	/K	+
1044	2Ch	/L	,
1045	2Dh	-	-
1046	2Eh	.	.
1047	2Fh	/	/
1048	30h	0	0
1049	31h	1	1
1050	32h	2	2
1051	33h	3	3
1052	34h	4	4
1053	35h	5	5
1054	36h	6	6
1055	37h	7	7

**Table 4-3 Character Equivalents(Continued)**

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

**Table 4-3 Character Equivalents(Continued)**

Scan Value	Hex Value	Keyboard Function Key Operation	Keyboard Ctrl Combination Key
1087	57h	W	W
1088	58h	X	X
1089	59h	Y	Y
1090	5Ah	Z	Z
1091	5Bh	%K	[
1092	5Ch	%L	\
1093	5Dh	%M	]
1094	5Eh	%N	^
1095	5Fh	%O	_
1096	60h	%W	'
1097	61h	+A	a
1098	62h	+B	b
1099	63h	+C	c
1100	64h	+D	d
1101	65h	+E	e
1102	66h	+F	f
1103	67h	+G	g
1104	68h	+H	h
1105	69h	+I	i
1106	6Ah	+J	j
1107	6Bh	+K	k
1108	6Ch	+L	l
1109	6Dh	+M	m
1110	6Eh	+N	n
1111	6Fh	+O	o
1112	70h	+P	p
1113	71h	+Q	q
1114	72h	+R	r
1115	73h	+S	s
1116	74h	+T	t
1117	75h	+U	u

**Table 4-3 Character Equivalents(Continued)**

Scan Value	Hex Value	Keyboard Function Key Operation	Keyboard Ctrl Combination Key
1118	76h	+V	v
1119	77h	+W	w
1120	78h	+X	x
1121	79h	+Y	y
1122	7Ah	+Z	z
1123	7Bh	%P	{
1124	7Ch	%Q	
1125	7Dh	%R	}
1126	7Eh	%S	~
1127	7Fh		Undefined

Values from 1128 through 1255 (hex values 80h through FFh for SSI) may also be set.



## Code ID

Table 4-4

Barcode Type	Code ID
Code 128	D
GS1-128(UCC/EAN-128)	K
AIM 128	D
ISBT-128	D
EAN-8	A
EAN-13	A
ISSN	L
ISBN/Bookland EAN	L
UPC-E	A
UPC-A	A
Interleaved 2 of 5/ITF	F
ITF-14	F
Deutsche Post 14	w
Deutsche Post 12	l
NEC-25(COOP 2 of 5)	o
Matrix 2 of 5	V
Industrial 2 of 5/Discrete 2 of 5/IND25	G
Standard 2 of 5 (IATA 25)	G
Code 39	B
Code 93	E
Codabar	C
Code 11	H
Plessey	J
MSI-Plessey	J
GS1-DataBar (RSS)	R
PDF417	r
QR	q
AZTEC(Aztec Code)	a
DM(DataMatrix)	u
MaxiCode	x
Han Xin Code	c
Code 32	B
Trioptic Code 39	M
Coupon Code	N
GS1 DataBar-14	R
GS1 DataBar Limited	R
GS1 DataBar Expanded	R
SETUP128	S
Veri Code	v

## AIM Code Identifiers

**Table 4-5**

Barcode Type	AIM ID	Instruction
Code 128	JC0	Common data
GS1-128(UCC/EAN-128)	JC1	FNC1 in the first code word position.
AIM 128	JC2	FNC1 in the second code word position.
ISBT-128	JC0	
EAN-8	JE4	Common data
	JE4...JE1...	Add 2-bit additional code
	JE4...JE2...	Add 5-bit additional code
EAN-13	JE0	Common data
	JE3	Add 2/5-bit additional code
ISSN	JX0	Common data
ISBN/Bookland EAN	JX0	Common data
UPC-E	JE0	Common data
	JE3	Add 2/5-bit additional code
UPC-A	JE0	Common data
	JE3	Add 2/5-bit additional code
Interleaved 2 of 5/ITF	Ji0	Common data
	Ji1	Check and output check character
	Ji3	Check but don't output check character
ITF-14	Ji1	Output check character
	Ji3	Not output check character
Deutsche Post 14	JX0	Common data
Deutsche Post 12	JX0	Common data
NEC-25(COOP 2 of 5)	JX0	Common data
Matrix 2 of 5	JX0	Common data
Industrial 2 of 5/ Discrete 2 of 5/IND25	JS0	Common data
Standard 2 of 5 (IATA 25)	JR0	Common data
Code 39	JA0	Common data
	JA1	MOD43 Check and output check character
	JA3	MOD43 Check but don't output check character
	JA4	Full ASCII expand,but don't check.
	JA5	Full ASCII expand,and output check character
	JA7	Full ASCII expand,but don't output check character
Code 93	JG0	Common data
Codabar	JF0	Common data
	JF2	Check and output check character
	JF4	Check but don't output check character
Code 11	JH3	Common data
	JH0	MOD11 single character check, and output check character.
	JH3	MOD11 single character check, but don't output check character.
Plessey	JP0	Common data
MSI-Plessey	JM0	Common data
	JM0	MOD10 check and output check character
	JM1	MOD10 check but don't output check character
GS1-DataBar ( RSS )	Je0	Standard data packet
PDF417	JL0	No options specified at this time. Always transmit 3.
QR	JQ0	QR barcode Mode1 ( conform AIM ISS 97-001 )
	JQ1	QR barcode Mode2 ( 2005 symbol) ,do not use the ECI protocol
	JQ2	QR barcode Mode2( 2005 symbol), Use the ECI protocol

	]Q3	QR barcode Mode2 (2005 symbol),do not use the ECI protocol, FNC1 is in the first place
	]Q4	QR barcode Mode2 (2005 symbol),use the ECI protocol , FNC1 is in the first place
	]Q5	QR barcode Mode2 (2005 symbol),do not use the ECI protocol , FNC1 is in the second place
	]Q6	QR barcode Mode2 (2005 symbol),use the ECI protocol , FNC1 is in the second place
AZTEC(Aztec Code)	]z0	No options specified at this time. Always transmit 3.
DM(DataMatrix)	]d0	ECC 000 - 140
	]d1	ECC 200
	]d2	ECC 200,FNC1 is in the first or fifth place
	]d3	ECC 200, FNC1 is in the second or sixth place
	]d4	ECC 200 supports ECI protocol
	]d5	ECC 200, FNC1 is in the first or fifth place and supports ECI protocol
	]d6	ECC 200, FNC1 is in the second or sixth place and supports ECI protocol
MaxiCode	]U1	No options specified at this time. Always transmit 3.
Han Xin Code	]X0	No options specified at this time. Always transmit 3.

## Parameter Command

**Table 4-6**

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

**Table 4-7**

Parameter Name	Command	Command Inquiry
Default Configuration	Factory Configuration:08 C6 04 08 00 F2 FF 00 FD 35 Default Configuration 1:08 C6 04 08 00 F2 FF 01 FD 34 Default Configuration 2:08 C6 04 08 00 F2 FF 02 FD 33 Default Configuration 3:08 C6 04 08 00 F2 FF 03 FD 32 Default Configuration 4:08 C6 04 08 00 F2 FF 04 FD 31 Default Configuration 5:08 C6 04 08 00 F2 FF 05 FD 30	06 C7 04 00 F2 FF FD 3E
Duration in Scanning	4s: 07 C6 04 08 00 88 28 FE 77 10s:07 C6 04 08 00 88 64 FE 3B Temporary: 1s: 07 C6 04 00 FF 88 0A FD 9E	05 C7 04 00 88 FE A8
Duration in Scanning Quick Setting	Infinite Time: 08 C6 04 08 00 F2 CF 00 FD 65 last 3s: 08 C6 04 08 00 F2 CF 03 FD 62 last 5s: 08 C6 04 08 00 F2 CF 05 FD 60 last 10s: 08 C6 04 08 00 F2 CF 0A FD 5B last 15s: 08 C6 04 08 00 F2 CF 0B FD 5A last 20s: 08 C6 04 08 00 F2 CF 0C FD 59 last 30s: 08 C6 04 08 00 F2 CF 0D FD 58 last 60s: 08 C6 04 08 00 F2 CF 0E FD 57	06 C7 04 00 F2 CF FD 6E
Enable RS485 Networking Function	Disable: 08 C6 04 08 00 F6 33 00 FD FD Enable: 08 C6 04 08 00 F6 33 01 FD FC	06 C7 04 00 F6 33 FE 06
Modify 485 Device Slave Address	Set slave address 00 01 command :09 A1 04 08 00 F8 11 00 01 FE 40	06 A0 04 00 F8 11 FE 4D
RS485 Networking Decoding Data Format	Disable:08 C6 04 08 00 F6 34 00 FD FC Enable:08 C6 04 08 00 F6 34 01 FD FB	06 C7 04 00 F6 34 FE 05
RS485 Networking Heartbeat Switch	Disable: 08 C6 04 08 00 F6 35 00 FD FB Enable: 08 C6 04 08 00 F6 35 01 FD FA	06 C7 04 00 F6 35 FE 04
Power Mode	Continuous Power: 07 C6 04 08 00 80 00 FE A7 Low Power: 07 C6 04 08 00 80 01 FE A6	05 C7 04 00 80 FE B0
Trigger Mode	Level: 07 C6 04 08 00 8A 00 FE 9D Pulse: 07 C6 04 08 00 8A 02 FE 9B Continuous: 07 C6 04 08 00 8A 04 FE 99 Host: 07 C6 04 08 00 8A 08 FE 95 Automatic Induction Mode: 07 C6 04 08 00 8A 09 FE 94 Button Continuous: 07 C6 04 08 00 8A 0A FE 93 Button Automatic Induction Mode:07 C6 04 08 00 8A 0B FE 92 Temporary: Level: 07 C6 04 00 FF 8A 00 FD A6 Continuous: 07 C6 04 00 FF 8A 04 FD A2 Host: 07 C6 04 00 FF 8A 08 FD 9E Host:07 C6 04 00 00 8A 08 FE 9D	05 C7 04 00 8A FE A6

Continuous Reading Interval	0s:07 C6 04 08 00 89 00 FE 9E 0.5s: 07 C6 04 08 00 89 05 FE 99 3s: 07 C6 04 08 00 89 1E FE 80	05 C7 04 00 89 FE A7
Beeper Volume	Low: 07 C6 04 08 00 8C 02 FE 99 Medium: 07 C6 04 08 00 8C 01 FE 9A High: 07 C6 04 08 00 8C 00 FE 9B Mute: 07 C6 04 08 00 8C 03 FE 98	05 C7 04 00 8C FE A4
Beeper Type	* Passive Beeper: 08 C6 04 08 00 F2 D8 00 FD 5C Active Beeper: 08 C6 04 08 00 F2 D8 01 FD 5B	06 C7 04 00 F2 D8 FD 65
Beep After Good Decode	Enable: 07 C6 04 08 00 38 01 FE EE Disable: 07 C6 04 08 00 38 00 FE EF	05 C7 04 00 38 FE F8
Terminator	Disable:08 C6 04 08 00 F2 05 00 FE 2F CR LF:08 C6 04 08 00 F2 05 01 FE 2E CR:08 C6 04 08 00 F2 05 02 FE 2D TAB: 08 C6 04 08 00 F2 05 03 FE 2C CR CR: 08 C6 04 08 00 F2 05 04 FE 2B CR LF CR LF: 08 C6 04 08 00 F2 05 05 FE 2A	06 C7 04 00 F2 05 FE 38
Indicator Light Function	Good Decode: 08 C6 04 08 00 F2 0A 00 FE 2A Power LED: 08 C6 04 08 00 F2 0A 01 FE 29	06 C7 04 00 F2 0A FE 33
LED After Good Decode	Disable: 08 C6 04 08 00 F2 0B 00 FE 29 Enable: 08 C6 04 08 00 F2 0B 01 FE 28	06 C7 04 00 F2 0B FE 32
Decode Indicator Control	Mode 0: 08 C6 04 08 00 F2 CB 00 FD 69 Mode 1: 08 C6 04 08 00 F2 CB 01 FD 68 Mode 2: 08 C6 04 08 00 F2 CB 02 FD 67 Mode 3: 08 C6 04 08 00 F2 CB 03 FD 66	06 C7 04 00 F2 CB FD 72
Mute	Disable: 08 C6 04 08 00 F2 0C 00 FE 28 Enable: 08 C6 04 08 00 F2 0C 01 FE 27	06 C7 04 00 F2 0C FE 31
Boot Prompt	Disable: 08 C6 04 08 00 F2 0D 00 FE 27 Enable: 08 C6 04 08 00 F2 0D 01 FE 26	06 C7 04 00 F2 0D FE 30
Setup Code Prompt	Disable: 08 C6 04 08 00 F2 0E 00 FE 26 Enable: 08 C6 04 08 00 F2 0E 01 FE 25	06 C7 04 00 F2 0E FE 2F
Transmit "No Read" Message	Enable: 07 C6 04 08 00 5E 01 FE C8 Disable: 07 C6 04 08 00 5E 00 FE C9	05 C7 04 00 5E FE D2
Parameter Scanning	Enable: 07 C6 04 08 00 EC 01 FE 3A Disable: 07 C6 04 08 00 EC 00 FE 3B	05 C7 04 00 EC FE 44
Send Setting Code	Enable: 08 C6 04 08 00 F1 71 01 FD C3 Disable: 08 C6 04 08 00 F1 71 00 FD C4	06 C7 04 00 F1 71 FD CD
Linear Code Type Security Levels	Level 1: 07 C6 04 08 00 4E 01 FE D8 Level 2: 07 C6 04 08 00 4E 02 FE D7 Level 3: 07 C6 04 08 00 4E 03 FE D6 Level 4: 07 C6 04 08 00 4E 04 FE D5	05 C7 04 00 4E FE E2
Automatic Filling of Value-added Tax Invoice	Disable: 08 C6 04 08 00 F2 08 00 FE 2C Enable: 08 C6 04 08 00 F2 08 01 FE 2B	06 C7 04 00 F2 08 FE 35
Invoice Type	Special Invoice: 08 C6 04 08 00 F2 AA 00 FD 8A Plain Invoice: 08 C6 04 08 00 F2 AA 01 FD 89	06 C7 04 00 F2 AA FD 93
Transmit ID Characters	Disable: 07 C6 04 08 00 2D 00 FE FA AIM: 07 C6 04 08 00 2D 01 FE F9 Custom: 07 C6 04 08 00 2D 02 FE F8	05 C7 04 00 2D FF 03
The prefix/suffix value	Prefix Character String Setting 31 Suffix Character String Setting 32 33:	07 C7 04 00 69 68 6A FD F3

Prefix	0B C6 04 08 00 69 31 68 32 6A 33 FD 52 Prefix 0x00	
Suffix1	Suffix 0x0D 0x0A : 0B C6 04 08 00 69 00 68 0D 6A 0A FD D1	
Suffix2		
Scan Data Transmission Format	Data: 07 C6 04 08 00 EB 00 FE 3C Data+Suffix1: 07 C6 04 08 00 EB 01 FE 3B Data+Suffix2: 07 C6 04 08 00 EB 02 FE 3A Data+Suffix1+Suffix2: 07 C6 04 08 00 EB 03 FE 39 Prefix+Data: 07 C6 04 08 00 EB 04 FE 38 Prefix+Data+Suffix1: 07 C6 04 08 00 EB 05 FE 37 Prefix+Data+Suffix2: 07 C6 04 08 00 EB 06 FE 36 Prefix+Data+Suffix1+Suffix2: 07 C6 04 08 00 EB 07 FE 35	05 C7 04 00 EB FE 45
Baud Rate	1200: 07 C6 04 08 00 9C 03 FE 88 2400: 07 C6 04 08 00 9C 04 FE 87 4800: 07 C6 04 08 00 9C 05 FE 86 9600: 07 C6 04 08 00 9C 06 FE 85 19200: 07 C6 04 08 00 9C 07 FE 84 38400: 07 C6 04 08 00 9C 08 FE 83 57600: 07 C6 04 08 00 9C 09 FE 82 115200: 07 C6 04 08 00 9C 0A FE 81	05 C7 04 00 9C FE 94
Data Bit	7 Data Bits: 07 C6 04 08 00 A0 02 FE 85 8 Data Bits: 07 C6 04 08 00 A0 03 FE 84	05 C7 04 00 A0 FE 90
Parity	Odd: 07 C6 04 08 00 9E 00 FE 89 Even: 07 C6 04 08 00 9E 01 FE 88 Mark: 07 C6 04 08 00 9E 02 FE 87 Space: 07 C6 04 08 00 9E 03 FE 86 None: 07 C6 04 08 00 9E 04 FE 85	05 C7 04 00 9E FE 92
Software Handshaking	Enable: 07 C6 04 08 00 9F 01 FE 87 Disable: 07 C6 04 08 00 9F 00 FE 88	05 C7 04 00 9F FE 91
Decode Data Packet Format	Send Raw Decode Data : 07 C6 04 08 00 EE 00 FE 39 Send Packeted Decode Data: 07 C6 04 08 00 EE 01 FE 38	05 C7 04 00 EE FE 42
Host Serial Response Time-out	0.1s: 07 C6 04 08 00 9B 01 FE 8B	05 C7 04 00 9B FE 95
Stop Bit Select	1 Stop Bit: 07 C6 04 08 00 9D 01 FE 89 2 Stop Bits: 07 C6 04 08 00 9D 02 FE 88	05 C7 04 00 9D FE 93
Intercharacter Delay	1s: 07 C6 04 08 00 6E 01 FE B8	05 C7 04 00 6E FE C2
Host Character Time-out	500ms: 07 C6 04 08 00 EF 32 FE 06 200ms: 07 C6 04 08 00 EF 14 FE 24 50ms: 07 C6 04 08 00 EF 05 FE 33	05 C7 04 00 EF FE 41
Communication Mode	Serial Port: 08 C6 04 08 00 F2 01 00 FE 33 USB KBW: 08 C6 04 08 00 F2 01 01 FE 32 USB Serial Port: 08 C6 04 08 00 F2 01 02 FE 31	06 C7 04 00 F2 01 FE 3C

	AUTO UK: 08 C6 04 08 00 F2 01 03 FE 30 AUTO UV: 08 C6 04 08 00 F2 01 04 FE 2F TTDATA: 08 C6 04 08 00 F2 01 0A FE 29 TTDATA+Serial Port: 08 C6 04 08 00 F2 01 0B FE 28 HID POS: 08 C6 04 08 00 F2 01 0E FE 25	
Wiegand protocol type	AUTO: 08 C6 04 08 00 F2 A4 00 FD 90 WG26: 08 C6 04 08 00 F2 A4 01 FD 8F WG34: 08 C6 04 08 00 F2 A4 02 FD 8E WG66: 08 C6 04 08 00 F2 A4 03 FD 8D Custom Wiegand transport 1: 08 C6 04 08 00 F2 A4 04 FD 8C Custom Wiegand transport 2: 08 C6 04 08 00 F2 A4 05 FD 8B WG64: 08 C6 04 08 00 F2 A4 06 FD 8A	06 C7 04 00 F2 A4 FD 99
Wiegand 26 Protocol Output Mode	3+5: 08 C6 04 08 00 F2 A5 00 FD 8F RAW: 08 C6 04 08 00 F2 A5 01 FD 8E	06 C7 04 00 F2 A5 FD 98
Wiegand Output Time Interval	08 C6 04 08 00 F3 16 16 FE 07	06 C7 04 00 F3 16 FE 26
PS2 Mode	AUTO: 08 C6 04 08 00 F2 A6 00 FD 8E Independent PS2: 08 C6 04 08 00 F2 A6 01 FD 8D	06 C7 04 00 F2 A6 FD 97
Floodlight Control	Lighting when Read:08 C6 04 08 00 F2 02 00 FE 32 Always Lighting:08 C6 04 08 00 F2 02 01 FE 31 Always Close: 08 C6 04 08 00 F2 02 02 FE 30	06 C7 04 00 F2 02 FE 3B
Positioning Light Control	Lighting when Read:08 C6 04 08 00 F2 03 00 FE 31 Always Lighting:08 C6 04 08 00 F2 03 01 FE 30 Always Close: 08 C6 04 08 00 F2 03 02 FE 2F	06 C7 04 00 F2 03 FE 3A
Positioning light Flicker	*Flicker: 08 C6 04 08 00 F2 B8 00 FD 7C No Flicker: 08 C6 04 08 00 F2 B8 01 FD 7B	06 C7 04 00 F2 B8 FD 85
Sensitivity Level	Special:08 C6 04 08 00 F2 04 00 FE 30 High:08 C6 04 08 00 F2 04 01 FE 2F Middle:08 C6 04 08 00 F2 04 02 FE 2E Low:08 C6 04 08 00 F2 04 03 FE 2D	06 C7 04 00 F2 04 FE 39
Custom Sensitivity	00:08 C6 04 08 00 F3 01 00 FE 32 01:08 C6 04 08 00 F3 01 01 FE 31 05:08 C6 04 08 00 F3 01 05 FE 2D 10:08 C6 04 08 00 F3 01 0A FE 28 15:08 C6 04 08 00 F3 01 0F FE 23	06 C7 04 00 F3 01 FE 3B
Stability of Induction Time	500ms:08 C6 04 08 00 F3 02 05 FE 2C 1000ms:08 C6 04 08 00 F3 02 0A FE 27 300ms: 08 C6 04 08 00 F3 02 03 FE 2E	06 C7 04 00 F3 02 FE 3A
Output Interval of The Same Code	1500ms:08 C6 04 08 00 F3 03 0F FE 21 500ms:08 C6 04 08 00 F3 03 05 FE 2B 300ms: 08 C6 04 08 00 F3 03 03 FE 2D	06 C7 04 00 F3 03 FE 39
1D Identifies Two Barcodes	Disable: 08 C6 04 08 00 F2 10 00 FE 24 Enable: 08 C6 04 08 00 F2 10 01 FE 23	06 C7 04 00 F2 10 FE 2D
1D inverse barcode reading	Disable: 08 C6 04 08 00 F2 91 00 FD A3 Enable: 08 C6 04 08 00 F2 91 01 FD A2	06 C7 04 00 F2 91 FD AC

Output Product Information	None	06 C7 04 00 F4 01 FE 3A
Output Character Set Type	Raw: 08 C6 04 08 00 F2 06 00 FE 2E GBK:08 C6 04 08 00 F2 06 01 FE 2D UTF8:08 C6 04 08 00 F2 06 02 FE 2C EUC-KR Korean: 08 C6 04 08 00 F2 06 03 FE 2B	06 C7 04 00 F2 06 FE 37
Input Character Set Type	AUTO: 08 C6 04 08 00 F2 AB 00 FD 89 GBK(GB2312): 08 C6 04 08 00 F2 AB 01 FD 88 UTF8: 08 C6 04 08 00 F2 AB 02 FD 87 ASCII: 08 C6 04 08 00 F2 AB 03 FD 86 Japanese:08 C6 04 08 00 F2 AB 04 FD 85 Korean:08 C6 04 08 00 F2 AB 05 FD 84 DEC Multinational Character Set (MCS): 08 C6 04 08 00 F2 AB 06 FD 83 ISO8859-1 Character Set: 08 C6 04 08 00 F2 AB 07 FD 82 Japanese Single Byte (valid for special version): 08 C6 04 08 00 F2 AB 08 FD 81	06 C7 04 00 F2 AB FD 92
USB Type	USB1.1 ( Full Speed): 08 C6 04 08 00 F2 0F 00 FE 25 USB2.0 ( High Speed) 08 C6 04 08 00 F2 0F 01 FE 24	06 C7 04 00 F2 0F FE 2E
Country/Language Keyboard	America: 08 C6 04 08 00 F6 01 01 FE 2E Belgium: 08 C6 04 08 00 F6 01 02 FE 2D Brazil ( ABNT2 ) : 08 C6 04 08 00 F6 01 03 FE 2C Denmark: 08 C6 04 08 00 F6 01 06 FE 29 Finland: 08 C6 04 08 00 F6 01 07 FE 28 France: 08 C6 04 08 00 F6 01 08 FE 27 Austria、Germany: 08 C6 04 08 00 F6 01 09 FE 26 Greece: 08 C6 04 08 00 F6 01 0A FE 25 Hungary: 08 C6 04 08 00 F6 01 0B FE 24 Italy: 08 C6 04 08 00 F6 01 0D FE 22 Netherlands: 08 C6 04 08 00 F6 01 0F FE 20 Norway: 08 C6 04 08 00 F6 01 10 FE 1F Poland: 08 C6 04 08 00 F6 01 11 FE 1E Portugal: 08 C6 04 08 00 F6 01 12 FE 1D Romania (standard): 08 C6 04 08 00 F6 01 13 FE 1C Russia: 08 C6 04 08 00 F6 01 14 FE 1B Slovakia: 08 C6 04 08 00 F6 01 15 FE 1A Spain: 08 C6 04 08 00 F6 01 16 FE 19 Sweden: 08 C6 04 08 00 F6 01 17 FE 18 Turkey_F: 08 C6 04 08 00 F6 01 19 FE 16 Turkey_Q: 08 C6 04 08 00 F6 01 1A FE 15 England: 08 C6 04 08 00 F6 01 1B FE 14 Japan: 08 C6 04 08 00 F6 01 1C FE 13 Chech: 08 C6 04 08 00 F6 01 1D FE 12 Thailand Kedmanee: 08 C6 04 08 00 F6 01 1E FE 11 Ukraine: 08 C6 04 08 00 F6 01 1F FE 10 Arabic_101: 08 C6 04 08 00 F6 01 20 FE 0F Croatia: 08 C6 04 08 00 F6 01 21 FE 0E	06 C7 04 00 F6 01 FE 38



	Korea: 08 C6 04 08 00 F6 01 22 FE 0D Bulgaria: 08 C6 04 08 00 F6 01 23 FE 0C Multi-country Common: 08 C6 04 08 00 F6 01 24 FE 0B	
Time interval that keyboard outputs character	0ms: 08 C6 04 08 00 F3 04 00 FE 2F 5ms: 08 C6 04 08 00 F3 04 01 FE 2E 10ms: 08 C6 04 08 00 F3 04 02 FE 2D	06 C7 04 00 F3 04 FE 38
Quick Settings of Keyboard Output Time Interval	0ms: 08 C6 04 08 00 F2 B2 00 FD 82 10ms: 08 C6 04 08 00 F2 B2 01 FD 81 50ms: 08 C6 04 08 00 F2 B2 02 FD 80	06 C7 04 00 F2 B2 FD 8B
Letter case conversion	Normal Letter Case: 08 C6 04 08 00 F2 A1 00 FD 93 All Uppercase: 08 C6 04 08 00 F2 A1 01 FD 92 All Lowercase: 08 C6 04 08 00 F2 A1 02 FD 91 Case Inversion: 08 C6 04 08 00 F2 A1 03 FD 90	06 C7 04 00 F2 A1 FD 9C
Keyboard Type	Standard Keyboard: 08 C6 04 08 00 F2 B4 00 FD 80 Virtual Keyboard: 08 C6 04 08 00 F2 B4 01 FD 7F	06 C7 04 00 F2 B4 FD 89
STX and ETX Setting	Disable: 08 C6 04 08 00 F2 B7 00 FD 7D STX(Prefix): 08 C6 04 08 00 F2 B7 01 FD 7C ETX(Suffix 1): 08 C6 04 08 00 F2 B7 02 FD 7B STX(Prefix)+ ETX(Suffix 1): 08 C6 04 08 00 F2 B7 03 FD 7A	06 C7 04 00 F2 B7 FD 86
Keyboard State Control	Disable: 08 C6 04 08 00 F2 B9 00 FD 7B Enable: 08 C6 04 08 00 F2 B9 01 FD 7A	06 C7 04 00 F2 B9 FD 84
ASCII Control Character Output Mode Selection	Output Function Key:08 C6 04 08 00 F2 AD 00 FD 87 Output Ctrl Combination Key:08 C6 04 08 00 F2 AD 01 FD 86 ALT Mode Output Control Character:08 C6 04 08 00 F2 AD 02 FD 85 Output Enter、DownArrow:08 C6 04 08 00 F2 AD 03 FD 84 Output CTRL+key combination, but not including the keys on the keyboard: 08 C6 04 08 00 F2 AD 04 FD 83	06 C7 04 00 F2 AD FD 90
Boot Event	Disable: 08 C6 04 08 00 F2 A2 00 FD 92 Enable: 08 C6 04 08 00 F2 A2 01 FD 91	06 C7 04 00 F2 A2 FD 9B
Trigger Event	Disable: 08 C6 04 08 00 F2 A3 00 FD 91 Enable: 08 C6 04 08 00 F2 A3 01 FD 90 Enable GPIO Pin Event: 08 C6 04 08 00 F2 A3 02 FD 8F Enable Event&GPIO Pin Event: 08 C6 04 08 00 F2 A3 03 FD 8E	06 C7 04 00 F2 A3 FD 9A
Enable Setting Code Password Mode	Disable: 08 C6 04 08 00 F2 A7 00 FD 8D Enable: 08 C6 04 08 00 F2 A7 01 FD 8C	06 C7 04 00 F2 A7 FD 96
Input Setting Code Password	Password 68: 08 C6 04 08 00 F3 05 68 FD C6 Password 96: 08 C6 04 08 00 F3 05 96 FD 98	06 C7 04 00 F3 05 FE 37
Modify Setting Code Password	New Password 68: 08 C6 04 08 00 F3 06 68 FD C5 New Password 96: 08 C6 04 08 00 F3 06 96 FD 97	06 C7 04 00 F3 06 FE 36

Logout Password	08 C6 04 08 00 F2 A9 00 FD 8B	06 C7 04 00 F2 A9 FD 94
Disable passive trigger scanning	Disable: 08 C6 04 08 00 F2 A8 00 FD 8C Enable: 08 C6 04 08 00 F2 A8 01 FD 8B	06 C7 04 00 F2 A8 FD 95
1D Global Switch	Disable: 08 C6 04 08 00 F2 11 00 FE 23 Enable: 08 C6 04 08 00 F2 11 01 FE 22	06 C7 04 00 F2 11 FE 2C
2D Global Switch	Disable: 08 C6 04 08 00 F2 50 00 FD E4 Enable: 08 C6 04 08 00 F2 50 01 FD E3	06 C7 04 00 F2 50 FD ED
All Barcode Switch	Disable: 08 C6 04 08 00 F2 90 00 FD A4 Enable: 08 C6 04 08 00 F2 90 01 FD A3	06 C7 04 00 F2 90 FD AD
Hide Head Data	Disable: 08 C6 04 08 00 F2 C6 00 FD 6E Enable: 08 C6 04 08 00 F2 C6 01 FD 6D	06 C7 04 00 F2 C6 FD 77
Hide Intermediate Data	Disable: 08 C6 04 08 00 F2 C7 00 FD 6D Enable: 08 C6 04 08 00 F2 C7 01 FD 6C	06 C7 04 00 F2 C7 FD 76
Hide Tail Data	Disable: 08 C6 04 08 00 F2 C8 00 FD 6C Enable: 08 C6 04 08 00 F2 C8 01 FD 6B	06 C7 04 00 F2 C8 FD 75
Enable/Disable Insert Custom Data	Disable: 08 C6 04 08 00 F2 DE 00 FD 56 Enable: 08 C6 04 08 00 F2 DE 01 FD 55	06 C7 04 00 F2 DE FD 5F
Output Interval of The Same Code	1500ms:08 C6 04 08 00 F3 03 0F FE 21 500ms:08 C6 04 08 00 F3 03 05 FE 2B 300ms: 08 C6 04 08 00 F3 03 03 FE 2D	06 C7 04 00 F3 03 FE 39
Fast Setting	No Delay: 08 C6 04 08 00 F2 C9 00 FD 6B Delay 1s: 08 C6 04 08 00 F2 C9 01 FD 6A Delay 3s: 08 C6 04 08 00 F2 C9 03 FD 68 Delay 5s: 08 C6 04 08 00 F2 C9 05 FD 66 Delay 7s: 08 C6 04 08 00 F2 C9 07 FD 64 Infinite Delay(Disable Output Interval of The Same Code): 08 C6 04 08 00 F2 C9 09 FD 62	06 C7 04 00 F2 C9 FD 74
Continue Scanning	Disable: 08 C6 04 08 00 F2 ED 00 FD 47 Enable: 08 C6 04 08 00 F2 ED 01 FD 46	06 C7 04 00 F2 ED FD 50
Continuously Set Multiple Prefix	Continuously Set Multiple Prefix: 08 C6 04 08 00 F3 10 00 FE 23	06 C7 04 00 F3 10 FE 2C
Continuously Set Multiple Suffix	Continuously Set Multiple Suffix: 08 C6 04 08 00 F3 11 00 FE 22	06 C7 04 00 F3 11 FE 2B
Complete Continuous Setup of Multiple Prefixes / Suffixes	Complete Continuous Setup of Multiple Prefixes / Suffixes: 08 C6 04 08 00 FF F6 00 FD 31	06 C7 04 00 FF F6 FD 3A
Set Multiple Prefix and Suffix Data Transmission Format	Data + Multiple Suffixes: 07 C6 04 08 00 EB 08 FE 34 Multiple Prefixes+Data: 07 C6 04 08 00 EB 09 FE 33 Multiple Prefixes+Data+Multiple Suffixes: 07 C6 04 08 00 EB 0A FE 32	05 C7 04 00 EB FE 45
Heartbeat Control	Disable: 08 C6 04 08 00 F2 CD 00 FD 67 ACK Heartbeat doesn't need ACK: 08 C6 04 08 00 F2 CD 01 FD 66 ACK Heartbeat needs ACK: 08 C6 04 08 00 F2 CD 02 FD 65	06 C7 04 00 F2 CD FD 70
URL Blocking	Disable: 08 C6 04 08 00 F2 EA 00 FD 4A Enable: 08 C6 04 08 00 F2 EA 01 FD 49	06 C7 04 00 F2 EA FD 53

## About 1D Barcode(only for 1D)

UPC-A		
Scan	Disable: 07 C6 04 08 00 01 00 FF 26 Enable: 07 C6 04 08 00 01 01 FF 25	05 C7 04 00 01 FF 2F
Transmit UPC-A Check Digit	Disable: 07 C6 04 08 00 28 00 FE FF Enable: 07 C6 04 08 00 28 01 FE FE	05 C7 04 00 28 FF 08
Supplemental Code	(00) None: 07 C6 04 08 00 10 00 FF 17 Enable (01) : 07 C6 04 08 00 10 01 FF 16 AUTO Distinguish(02): 07 C6 04 08 00 10 02 FF 15 378/379 Supplemental Mode (04) : 07 C6 04 08 00 10 04 FF 13 978 Supplemental Mode (05) : 07 C6 04 08 00 10 05 FF 12 Precise Mode (03) : 07 C6 04 08 00 10 03 FF 14	05 C7 04 00 10 FF 20
Preamble	None(00): 07 C6 04 08 00 22 00 FF 05 System Character (01) : 07 C6 04 08 00 22 01 FF 04 Country Character & System Character(02): 07 C6 04 08 00 22 02 FF 03	05 C7 04 00 22 FF 0E
UPC-A 2-bits Supplemental	Enable: 08 C6 04 08 00 F2 40 01 FD F3 Disable: 08 C6 04 08 00 F2 40 00 FD F4	06 C7 04 00 F2 40 FD FD
UPC-A 5-bits Supplemental	Enable: 08 C6 04 08 00 F2 41 01 FD F2 Disable: 08 C6 04 08 00 F2 41 00 FD F3	06 C7 04 00 F2 41 FD FC
UPC-A Read Supplementals	Enable: 08 C6 04 08 00 F2 42 01 FD F1 Disable: 08 C6 04 08 00 F2 42 00 FD F2	06 C7 04 00 F2 42 FD FB
UPC-E		
Scan	Disable: 07 C6 04 08 00 02 00 FF 25 Enable: 07 C6 04 08 00 02 01 FF 24	05 C7 04 00 02 FF 2E
Transmit UPC-E Check Digit	Disable: 07 C6 04 08 00 29 00 FE FE Enable: 07 C6 04 08 00 29 01 FE FD	05 C7 04 00 29 FF 07
Supplemental Code	None(00): 07 C6 04 08 00 10 00 FF 17 Enable (01) : 07 C6 04 08 00 10 01 FF 16 AUTO Distinguish(02): 07 C6 04 08 00 10 02 FF 15 378/379 Supplemental Mode (04) : 07 C6 04 08 00 10 04 FF 13 978 Supplemental Mode (05) : 07 C6 04 08 00 10 05 FF 12 Precise Mode (03) : 07 C6 04 08 00 10 03 FF 14	05 C7 04 00 10 FF 20
Preamble	None(00): 07 C6 04 08 00 23 00 FF 04 System Character (01) : 07 C6 04 08 00 23 01 FF 03 Country Character & System Character(02): 07 C6 04 08 00 23 02 FF 02	05 C7 04 00 23 FF 0D
Convert UPC-E to UPC-A	Disable: 07 C6 04 08 00 25 00 FF 02 Enable: 07 C6 04 08 00 25 01 FF 01	05 C7 04 00 25 FF 0B
UPC-E 2-bits Supplemental	Enable: 08 C6 04 08 00 F2 3D 01 FD F6	06 C7 04 00 F2 3D FE 00

	Disable: 08 C6 04 08 00 F2 3D 00 FD F7	
UPC-E 5-bits Supplemental	Enable: 08 C6 04 08 00 F2 3E 01 FD F5 Disable: 08 C6 04 08 00 F2 3E 00 FD F6	06 C7 04 00 F2 3E FD FF
UPC-E Read Supplementals	Enable: 08 C6 04 08 00 F2 3F 01 FD F4 Disable: 08 C6 04 08 00 F2 3F 00 FD F5	06 C7 04 00 F2 3F FD FE
UPC-E1	Disable: 08 C6 04 08 00 F2 15 00 FE 1F Enable: 08 C6 04 08 00 F2 15 01 FE 1E	06 C7 04 00 F2 15 FE 28
<b>EAN-8</b>		
Scan	Disable: 07 C6 04 08 00 04 00 FF 23 Enable: 07 C6 04 08 00 04 01 FF 22	05 C7 04 00 04 FF 2C
Supplemental Code	None(00): 07 C6 04 08 00 10 00 FF 17 Enable (01) : 07 C6 04 08 00 10 01 FF 16 AUTO Distinguish(02): 07 C6 04 08 00 10 02 FF 15 378/379 Supplemental Mode (04) : 07 C6 04 08 00 10 04 FF 13 978 Supplemental Mode (05) : 07 C6 04 08 00 10 05 FF 12 Precise Mode (03) : 07 C6 04 08 00 10 03 FF 14	05 C7 04 00 10 FF 20
EAN-8 is expanded to EAN-13	Disable: 07 C6 04 08 00 27 00 FF 00 Enable: 07 C6 04 08 00 27 01 FE FF	05 C7 04 00 27 FF 09
2-bits Supplemental	Enable: 08 C6 04 08 00 F2 37 01 FD FC Disable: 08 C6 04 08 00 F2 37 00 FD FD	06 C7 04 00 F2 37 FE 06
5-bits Supplemental	Enable: 08 C6 04 08 00 F2 38 01 FD FB Disable: 08 C6 04 08 00 F2 38 00 FD FC	06 C7 04 00 F2 38 FE 05
Read Supplementals	Enable: 08 C6 04 08 00 F2 39 01 FD FA Disable: 08 C6 04 08 00 F2 39 00 FD FB	06 C7 04 00 F2 39 FE 04
EAN-8 Transmit Check Digit	Disable: 08 C6 04 08 00 F2 80 00 FD B4 Enable: 08 C6 04 08 00 F2 80 01 FD B3	06 C7 04 00 F2 80 FD BD
<b>EAN-13</b>		
Scan	Disable: 07 C6 04 08 00 03 00 FF 24 Enable: 07 C6 04 08 00 03 01 FF 23	05 C7 04 00 03 FF 2D
EAN-13 2-bits Supplemental	Enable: 08 C6 04 08 00 F2 3A 01 FD F9 Disable: 08 C6 04 08 00 F2 3A 00 FD FA	06 C7 04 00 F2 3A FE 03
EAN-13 5-bits Supplemental	Enable: 08 C6 04 08 00 F2 3B 01 FD F8 Disable: 08 C6 04 08 00 F2 3B 00 FD F9	06 C7 04 00 F2 3B FE 02
EAN-13 Read Supplementals	Enable: 08 C6 04 08 00 F2 3C 01 FD F7 Disable: 08 C6 04 08 00 F2 3C 00 FD F8	06 C7 04 00 F2 3C FE 01
EAN-13 Transmit Check Digit	Disable: 08 C6 04 08 00 F2 16 00 FE 1E Enable: 08 C6 04 08 00 F2 16 01 FE 1D	06 C7 04 00 F2 16 FE 27
Supplemental Code	None(00): 07 C6 04 08 00 10 00 FF 17 Enable (01) : 07 C6 04 08 00 10 01 FF 16 AUTO Distinguish(02): 07 C6 04 08 00 10 02 FF 15 378/379 Supplemental Mode (04) : 07 C6 04 08 00 10 04 FF 13 978 Supplemental Mode (05) : 07 C6 04 08 00 10 05 FF 12	05 C7 04 00 10 FF 20

	Precise Mode (03) : 07 C6 04 08 00 10 03 FF 14	
<b>Bookland EAN(ISBN)</b>		
Scan	Disable: 07 C6 04 08 00 53 00 FE D4 Enable: 07 C6 04 08 00 53 01 FE D3	05 C7 04 00 53 FE DD
Format	Output 10 bits:08 C6 04 08 00 F1 40 00 FD F5 Output 13 bits:08 C6 04 08 00 F1 40 01 FD F4	06 C7 04 00 F1 40 FD FE
UPC/EAN Security Level	Level 1: 07 C6 04 08 00 4D 00 FE DA Level 2: 07 C6 04 08 00 4D 01 FE D9 Level 3: 07 C6 04 08 00 4D 02 FE D8 Level 4: 07 C6 04 08 00 4D 03 FE D7	05 C7 04 00 4D FE E3
Code 128 Symbologies Switch	Disable: 07 C6 04 08 00 08 00 FF 1F Enable: 07 C6 04 08 00 08 01 FF 1E	05 C7 04 00 08 FF 28
Transmit Code 128 Check Digit	Enable: 08 C6 04 08 00 F2 35 01 FD FE Disable: 08 C6 04 08 00 F2 35 00 FD FF	06 C7 04 00 F2 35 FE 08
Set Lengths for Code 128	One Discrete Length: 06: 0B C6 04 08 00 F5 04 06 F5 05 00 FD 2A Two Discrete Lengths: 04 and 06: 0B C6 04 08 00 F5 04 06 F5 05 04 FD 26 Length Within Range: 04 to 09: 0B C6 04 08 00 F5 04 04 F5 05 09 FD 23 Any Length: 0B C6 04 08 00 F5 04 00 F5 05 00 FD 30	08 C7 04 00 F5 04 F5 05 FD 3A
GS1-128 (formerly UCC/EAN-128)	Disable: 07 C6 04 08 00 0E 00 FF 19 Enable: 07 C6 04 08 00 0E 01 FF 18	05 C7 04 00 0E FF 22
Transmit UCC/EAN-128 Check Digit	Enable: 08 C6 04 08 00 F2 36 01 FD FD Disable: 08 C6 04 08 00 F2 36 00 FD FE	06 C7 04 00 F2 36 FE 07
Set Lengths for UCC/EAN-128	One Discrete Length: 06: 0B C6 04 08 00 F5 06 06 F5 07 00 FD 26 Two Discrete Lengths: 04 and 06: 0B C6 04 08 00 F5 06 06 F5 07 04 FD 22 Length Within Range: 04 to 09: 0B C6 04 08 00 F5 06 04 F5 07 09 FD 1F Any Length: 0B C6 04 08 00 F5 06 00 F5 07 00 FD 2C	08 C7 04 00 F5 06 F5 07 FD 36
ISBT 128	Disable: 07 C6 04 08 00 54 00 FE D3 Enable: 07 C6 04 08 00 54 01 FE D2	05 C7 04 00 54 FE DC
<b>Code 39</b>		
Code 39	Disable: 07 C6 04 08 00 00 00 FF 27 Enable: 07 C6 04 08 00 00 01 FF 26	05 C7 04 00 00 FF 30
Set Lengths for Code 39	One Discrete Length: Length 06: 09 C6 04 08 00 12 06 13 00 FE FA Length 16: 09 C6 04 08 00 12 10 13 00 FE F0	06 C7 04 00 12 13 FF 0A

	Length 14: 09 C6 04 08 00 12 0E 13 00 FE F2 Two Discrete Lengths: 02 and 04: 09 C6 04 08 00 12 04 13 02 FE FA 16 and 14: 09 C6 04 08 00 12 10 13 0E FE E2 Length Within Range: 02 to 09: 09 C-6 04 08 00 12 02 13 09 FE F5 0x02 to 0x37(55) : 09 C6 04 08 00 12 02 13 37 FE C7 14 to 15: 09 C6 04 08 00 12 0E 13 0F FE E3 14 to 15 (Temporary) : 09 C6 04 00 00 12 0E 13 0F FE EB 15 to 16 : 09 C6 04 08 00 12 0F 13 10 FE E1 Any Length: 09 C6 04 08 00 12 00 13 00 FE F0	
Code 39 Check Digit Verification	Disable: 07 C6 04 08 00 30 00 FE F7 Enable: 07 C6 04 08 00 30 01 FE F6	05 C7 04 00 30 FF 00
Transmit Code 39 Check Digit	Disable: 07 C6 04 08 00 2B 00 FE FC Enable: 07 C6 04 08 00 2B 01 FE FB	05 C7 04 00 2B FF 05
Code 39 Full ASCII	07 C6 04 08 00 11 01 FF 15	05 C7 04 00 11 FF 1F
Code 39 Transport Start Character and Terminator	Disable: 08 C6 04 08 00 F2 30 00 FE 04 Enable: 08 C6 04 08 00 F2 30 01 FE 03	06 C7 04 00 F2 30 FE 0D
Code 39 bigcode	Enable: 08 C6 04 08 00 F2 27 01 FE 0C Disable: 08 C6 04 08 00 F2 27 00 FE 0D	06 C7 04 00 F2 27 FE 16
Convert Code 39 to Code 32 (Italian Pharma Code)	Disable: 07 C6 04 08 00 56 00 FE D1 Enable: 07 C6 04 08 00 56 01 FE D0	05 C7 04 00 56 FE DA
Code 32 Prefix	Disable: 07 C6 04 08 00 E7 00 FE 40 Enable: 07 C6 04 08 00 E7 01 FE 3F	05 C7 04 00 E7 FE 49
Code 32 Check Digit Verification	Disable: 08 C6 04 08 00 F2 19 00 FE 1B Enable: 08 C6 04 08 00 F2 19 01 FE 1A	06 C7 04 00 F2 19 FE 24
Transmit Code 32 Check Digit	Transmit Check Digit: 08 C6 04 08 00 F2 1A 00 FE 1A Transmit Start Character, Stop Character, Check Digit: 08 C6 04 08 00 F2 1A 01 FE 19	06 C7 04 00 F2 1A FE 23
<b>Code 93</b>		
Code 93	Disable: 07 C6 04 08 00 09 00 FF 1E Enable: 07 C6 04 08 00 09 01 FF 1D	05 C7 04 00 09 FF 27
Set Lengths for Code 93	One Discrete Length: 04: 09 C6 04 08 00 1A 04 1B 00 FE EC Two Discrete Lengths: 04 and 06: 09 C6 04 08 00 1A 06 1B 04 FE E6 Length Within Range: 04 to 09: 09 C6 04 08 00 1A 04 1B 09 FE E3 Any Length: 09 C6 04 08 00 1A 00 1B 00 FE F0	06 C7 04 00 1A 1B FE FA
Code 93 Check	Enable: 08 C6 04 08 00 F2 4A 01 FD E9 Disable: 08 C6 04 08 00 F2 4A 00 FD EA	06 C7 04 00 F2 4A FD F3
Transmit Code 93 Check Digit	Enable: 08 C6 04 08 00 F2 4B 01 FD E8	06 C7 04 00 F2 4B FD F2

	Disable: 08 C6 04 08 00 F2 4B 00 FD E9	
<b>Code 11</b>		
Enable Code 11 Barcode Scanning	Disable: 07 C6 04 08 00 0A 00 FF 1D Enable: 07 C6 04 08 00 0A 01 FF 1C	05 C7 04 00 0A FF 26
Set Lengths for Code 11	One Discrete Length: 06: 09 C6 04 08 00 1C 06 1D 00 FE E6 Two Discrete Lengths: 04 and 06: 09 C6 04 08 00 1C 06 1D 04 FE E2 Length Within Range: 04 to 09: 09 C6 04 08 00 1C 04 1D 09 FE DF Any Length: 09 C6 04 08 00 1C 00 1D 00 FE EC	06 C7 04 00 1C 1D FE F6
Code 11 Check Digit Verification	None: 07 C6 04 08 00 34 00 FE F3 1 bit: 07 C6 04 08 00 34 01 FE F2 2 bits: 07 C6 04 08 00 34 02 FE F1	05 C7 04 00 34 FE FC
Transmit Code 11 Check Digit	Disable: 07 C6 04 08 00 2F 00 FE F8 Enable: 07 C6 04 08 00 2F 01 FE F7	05 C7 04 00 2F FF 01
<b>Interleaved 2 of 5/ITF/交叉 25 码</b>		
Enable Interleaved 2 of 5/ITF/交叉 25 码	Disable: 07 C6 04 08 00 06 00 FF 21 Enable: 07 C6 04 08 00 06 01 FF 20	05 C7 04 00 06 FF 2A
Set Scanning Data Lengths for Interleaved 2 of 5	One Discrete Length: 06: 09 C6 04 08 00 16 06 17 00 FE F2 Two Discrete Lengths: 04 and 06: 09 C6 04 08 00 16 06 17 04 FE EE Length Within Range: 04 to 09: 09 C6 04 08 00 16 04 17 09 FE EB Any Length: 09 C6 04 08 00 16 00 17 00 FE F8	06 C7 04 00 16 17 FF 02
Interleaved 2 of 5 Check Digit Verification	Disable: 07 C6 04 08 00 31 00 FE F6 Enable: 07 C6 04 08 00 31 01 FE F5	05 C7 04 00 31 FE FF
Transmit Interleaved 2 of 5 Check Digit	Disable: 07 C6 04 08 00 2C 00 FE FB Enable: 07 C6 04 08 00 2C 01 FE FA	05 C7 04 00 2C FF 04
ITF14	Enable: 08 C6 04 08 00 F2 43 01 FD F0 Disable: 08 C6 04 08 00 F2 43 00 FD F1	06 C7 04 00 F2 43 FD FA
Transmit ITF14 Check Digit	Enable: 08 C6 04 08 00 F2 44 01 FD EF Disable: 08 C6 04 08 00 F2 44 00 FD F0	06 C7 04 00 F2 44 FD F9
<b>Discrete 2 of 5 /Industrial 2 of 5/IND25/工业 25 码</b>		
Enable Discrete 2 of 5 /Industrial 2 of 5/IND25/工业 25 码	Disable: 07 C6 04 08 00 05 00 FF 22 Enable: 07 C6 04 08 00 05 01 FF 21	05 C7 04 00 05 FF 2B
Set Scanning Data Lengths for Discrete 2 of 5	One Discrete Length: 06: 09 C6 04 08 00 14 06 15 00 FE F6 Two Discrete Lengths: 04 and 06 04 and 06: 09 C6 04 08 00 14 06 15 04 FE F2 Length Within Range: 04 to 09 04 to 09: 09 C6 04 08 00 14 04 15 09 FE EF Any Length: 09 C6 04 08 00 14 00 15 00 FE FC	06 C7 04 00 14 15 FF 06
Discrete 2 of 5 Check	Enable: 08 C6 04 08 00 F2 48 01 FD EB	06 C7 04 00 F2 48 FD F5

	Disable: 08 C6 04 08 00 F2 48 00 FD EC	
Transmit Discrete 2 of 5 Check Digit	Enable: 08 C6 04 08 00 F2 49 01 FD EA Disable: 08 C6 04 08 00 F2 49 00 FD EB	06 C7 04 00 F2 49 FD F4
矩阵 25 Matrix 25		
Matrix 25	Disable: 08 C6 04 08 00 F2 20 00 FE 14 Enable: 08 C6 04 08 00 F2 20 01 FE 13	06 C7 04 00 F2 20 FE 1D
Matrix 25 Check Digit Verification	Disable: 08 C6 04 08 00 F2 21 00 FE 13 Enable: 08 C6 04 08 00 F2 21 01 FE 12	06 C7 04 00 F2 21 FE 1C
Transmit Matrix 25 Check Character	Disable: 08 C6 04 08 00 F2 22 00 FE 12 Enable: 08 C6 04 08 00 F2 22 01 FE 11	06 C7 04 00 F2 22 FE 1B
Set Lengths for Matrix 25	One Discrete Length: 06: 0B C6 04 08 00 F5 00 06 F5 01 00 FD 32 Two Discrete Lengths: 04 and 06 04 and 06: 0B C6 04 08 00 F5 00 06 F5 01 04 FD 2E Length Within Range: 04 to 09 04 to 09: 0B C6 04 08 00 F5 00 04 F5 01 09 FD 2B Any Length: 0B C6 04 08 00 F5 00 00 F5 01 00 FD 38	08 C7 04 00 F5 00 F5 01 FD 42
Standard 25 / IATA 25 /标准 25		
Standard 25/IATA 25/标准 25	Disable: 08 C6 04 08 00 F2 23 00 FE 11 Enable: 08 C6 04 08 00 F2 23 01 FE 10	06 C7 04 00 F2 23 FE 1A
Standard 25 Check Digit Verification	Disable: 08 C6 04 08 00 F2 24 00 FE 10 Enable: 08 C6 04 08 00 F2 24 01 FE 0F	06 C7 04 00 F2 24 FE 19
Transmit Standard 25 Check Digit	Disable: 08 C6 04 08 00 F2 25 00 FE 0F Enable: 08 C6 04 08 00 F2 25 01 FE 0E	06 C7 04 00 F2 25 FE 18
Set Lengths for Standard 25	One Discrete Length: 06: 09 C6 04 08 00 F5 02 06 F5 03 00 FD 2E Two Discrete Lengths: 04 and 06 04 and 06: 09 C6 04 08 00 F5 02 06 F5 03 04 FD 2A Length Within Range: 04 to 09 04 to 09: 09 C6 04 08 00 F5 02 04 F5 03 09 FD 27 Any Length: 09 C6 04 08 00 F5 02 00 F5 03 00 FD 34	08 C7 04 00 F5 02 F5 03 FD 3E
Enable Codabar Barcode Scanning	Disable: 07 C6 04 08 00 07 00 FF 20 Enable: 07 C6 04 08 00 07 01 FF 1F	05 C7 04 00 07 FF 29
Set Lengths for Codabar	One Discrete Length: 04: 09 C6 04 08 00 18 04 19 00 FE F0 Two Discrete Lengths: 09 C6 04 08 00 18 05 19 04 FE EB Length Within Range: 04 to 09 04 to 09: 09 C6 04 08 00 18 04 19 09 FE E7 Any Length: 09 C6 04 08 00 18 00 19 00 FE F4	06 C7 04 00 18 19 FE FE
Codabar Check	Enable: 08 C6 04 08 00 F2 4C 01 FD E7 Disable: 08 C6 04 08 00 F2 4C 00 FD E8	06 C7 04 00 F2 4C FD F1
Transmit Codabar Check	Enable: 08 C6 04 08 00 F2 4D 01 FD E6	06 C7 04 00 F2 4D FD F0



Digit	Disable: 08 C6 04 08 00 F2 4D 00 FD E7	
NOTIS Transmit Format	Disable: 07 C6 04 08 00 37 00 FE F0 Enable: 07 C6 04 08 00 37 01 FE EF	05 C7 04 00 37 FE F9
Start Character and Terminator Format	ABCD/ABCD: 08 C6 04 08 00 F2 31 00 FE 03 ABCD/TN*E: 08 C6 04 08 00 F2 31 01 FE 02	06 C7 04 00 F2 31 FE 0C
Letter Case Setting of Start Character and Terminator	Uppercase: 08 C6 04 08 00 F2 32 00 FE 02 Lowercase: 08 C6 04 08 00 F2 32 01 FE 01	06 C7 04 00 F2 32 FE 0B

#### MSI /MSI PLESSEY

Enable MSI /MSI PLESSEY Barcode Scanning	Disable: 07 C6 04 08 00 0B 00 FF 1C Enable: 07 C6 04 08 00 0B 01 FF 1B	05 C7 04 00 0B FF 25
Set Lengths for MSI	One Discrete Length: 04: 09 C6 04 08 00 1E 04 1F 00 FE E4 Two Discrete Lengths: 04 and 05: 09 C6 04 08 00 1E 05 1F 04 FE DF Length Within Range: 02 to 09: 09 C6 04 08 00 1E 02 1F 09 FE DD Any Length: 09 C6 04 08 00 1E 00 1F 00 FE E8	06 C7 04 00 1E 1F FE F2
MSI Check Digit	1 bit: 07 C6 04 08 00 32 00 FE F5 2 bits: 07 C6 04 08 00 32 01 FE F4	05 C7 04 00 32 FE FE
Transmit MSI Check Digit	Disable: 07 C6 04 08 00 2E 00 FE F9 Enable: 07 C6 04 08 00 2E 01 FE F8	05 C7 04 00 2E FF 02
MSI Check Algorithm	MOD10/11: 07 C6 04 08 00 33 00 FE F4 MOD10/10: 07 C6 04 08 00 33 01 FE F3	05 C7 04 00 33 FE FD

#### GS1 DataBar(RSS)

Enable GS1 DataBar(RSS) 14 Barcode Scanning	Disable: 08 C6 04 08 00 F0 52 00 FD E4 Enable: 08 C6 04 08 00 F0 52 01 FD E3	06 C7 04 00 F0 52 FD ED
Enable GS1 DataBar Limited Barcode Scanning	Disable: 08 C6 04 08 00 F0 53 00 FD E3 Enable: 08 C6 04 08 00 F0 53 01 FD E2	06 C7 04 00 F0 53 FD EC
Enable GS1 DataBar Expanded Barcode Scanning	Disable: 08 C6 04 08 00 F0 54 00 FD E2 Enable: 08 C6 04 08 00 F0 54 01 FD E1	06 C7 04 00 F0 54 FD EB
RSS AI Character	Enable: 08 C6 04 08 00 F2 26 01 FE 0D Disable: 08 C6 04 08 00 F2 26 00 FE 0E	06 C7 04 00 F2 26 FE 17

#### About 2D Barcode(only for 2D)

#### PDF417

PDF417	Enable: 07 C6 04 08 00 0F 01 FF 17 Disable: 07 C6 04 08 00 0F 00 FF 18	05 C7 04 00 0F FF 21
Read Multi-code	Read Monocode: 08 C6 04 08 00 F2 60 00 FD D4 Read Dicode: 08 C6 04 08 00 F2 60 01 FD D3 Read Monocode /Dicode: 08 C6 04 08 00 F2 60 02 FD D2	06 C7 04 00 F2 60 FD DD
Read Normal Phase/ Phase Reversal	Read Normal Phase: 08 C6 04 08 00 F2 61 00 FD D3 Read Phase Reversal: 08 C6 04 08 00 F2 61 01 FD D2 Read Normal Phase/ Phase Reversal: 08 C6 04 08 00 F2 61 02 FD D1	06 C7 04 00 F2 61 FD DC

#### QRCode

QRCode	Enable: 08 C6 04 08 00 F0 25 01 FE 10 Disable: 08 C6 04 08 00 F0 25 00 FE 11	06 C7 04 00 F0 25 FE 1A
Read Multi-code	Read Monocode: 08 C6 04 08 00 F2 65 00 FD CF Read Dicode: 08 C6 04 08 00 F2 65 01 FD CE Read Monocode /Dicode: 08 C6 04 08 00 F2 65 02 FD CD	06 C7 04 00 F2 65 FD D8
ECI Control	Not Output:08 C6 04 08 00 F2 66 00 FD CE Output:08 C6 04 08 00 F2 66 01 FD CD	06 C7 04 00 F2 66 FD D7
Read Normal Phase/ Phase Reversal	Read Normal Phase: 08 C6 04 08 00 F2 67 00 FD CD Read Phase Reversal: 08 C6 04 08 00 F2 67 01 FD CC Read Normal Phase/ Phase Reversal: 08 C6 04 08 00 F2 67 02 FD CB	06 C7 04 00 F2 67 FD D6
<b>MicroQRCode</b>		
MicroQRCode	Enable: 08 C6 04 08 00 F1 3D 01 FD F7 Disable: 08 C6 04 08 00 F1 3D 00 FD F8	06 C7 04 00 F1 3D FE 01
<b>DataMatrix</b>		
DataMatrix	Enable: 08 C6 04 08 00 F0 24 01 FE 11 Disable: 08 C6 04 08 00 F0 24 00 FE 12	06 C7 04 00 F0 24 FE 1B
Read Multi-code	Read Monocode: 08 C6 04 08 00 F2 6A 00 FD CA Read Dicode: 08 C6 04 08 00 F2 6A 01 FD C9 Read Monocode /Dicode: 08 C6 04 08 00 F2 6A 02 FD C8	06 C7 04 00 F2 6A FD D3
Read Normal Phase/ Phase Reversal	Read Normal Phase: 08 C6 04 08 00 F2 6B 00 FD C9 Read Phase Reversal: 08 C6 04 08 00 F2 6B 01 FD C8 Read Normal Phase/ Phase Reversal: 08 C6 04 08 00 F2 6B 02 FD C7	06 C7 04 00 F2 6B FD D2
ECI Control	Not Output:08 C6 04 08 00 F2 6C 00 FD C8 Output:08 C6 04 08 00 F2 6C 01 FD C7	06 C7 04 00 F2 6C FD D1
<b>MaxiCode</b>		
MaxiCode	Disable: 08 C6 04 08 00 F0 26 00 FE 10 Enable: 08 C6 04 08 00 F0 26 01 FE 0F	06 C7 04 00 F0 26 FE 19
<b>Aztec</b>		
Aztec	Disable: 08 C6 04 08 00 F0 28 00 FE 0E Enable: 08 C6 04 08 00 F0 28 01 FE 0D	06 C7 04 00 F0 28 FE 17
<b>Han Xin Code</b>		
Han Xin Code	Disable: 08 C6 04 08 00 F0 2F 00 FE 07 Enable: 08 C6 04 08 00 F0 2F 01 FE 06	06 C7 04 00 F0 2F FE 10
Read Multi-code	Read Monocode: 08 C6 04 08 00 F2 70 00 FD C4 Read Dicode: 08 C6 04 08 00 F2 70 01 FD C3 Read Monocode /Dicode: 08 C6 04 08 00 F2 70 02 FD C2	06 C7 04 00 F2 70 FD CD

Read Normal Phase/ Phase Reversal	Read Normal Phase: 08 C6 04 08 00 F2 71 00 FD C3 Read Phase Reversal: 08 C6 04 08 00 F2 71 01 FD C2 Read Normal Phase/ Phase Reversal: 08 C6 04 08 00 F2 71 02 FD C1	06 C7 04 00 F2 71 FD CC
ISSN	Disable: 08 C6 04 08 00 F2 33 00 FE 01 Enable: 08 C6 04 08 00 F2 33 01 FE 00	06 C7 04 00 F2 33 FE 0A
PLESSEY	Disable: 08 C6 04 08 00 F2 34 00 FE 00 Enable: 08 C6 04 08 00 F2 34 01 FD FF	06 C7 04 00 F2 34 FE 09
PLESSEY Check	Enable: 08 C6 04 08 00 F2 4E 01 FD E5 Disable: 08 C6 04 08 00 F2 4E 00 FD E6	06 C7 04 00 F2 4E FD EF
Transmit PLESSEY Check Character	Enable: 08 C6 04 08 00 F2 4F 01 FD E4 Disable: 08 C6 04 08 00 F2 4F 00 FD E5	06 C7 04 00 F2 4F FD EE
AIM128	Enable: 08 C6 04 08 00 F2 29 01 FE 0A Disable: 08 C6 04 08 00 F2 29 00 FE 0B	06 C7 04 00 F2 29 FE 14
Transmit AIM128 Check Character	Enable: 08 C6 04 08 00 F2 2A 01 FE 09 Disable: 08 C6 04 08 00 F2 2A 00 FE 0A	06 C7 04 00 F2 2A FE 13
Set Lengths for AIM128	One Discrete Length: 06: 0B C6 04 08 00 F5 0A 06 F5 0B 00 FD 1E Two Discrete Lengths: 04 and 06 04 and 06: 0B C6 04 08 00 F5 0A 06 F5 0B 04 FD 1A Length Within Range: 04 to 09 04 to 09: 0B C6 04 08 00 F5 0A 04 F5 0B 09 FD 17 Any Length: 0B C6 04 08 00 F5 0A 00 F5 0B 00 FD 24	08 C7 04 00 F5 0A F5 0B FD 2E
DEU14	Enable: 08 C6 04 08 00 F2 2B 01 FE 08 Disable: 08 C6 04 08 00 F2 2B 00 FE 09	06 C7 04 00 F2 2B FE 12
Transmit DEU14 Check Character	Enable: 08 C6 04 08 00 F2 2C 01 FE 07 Disable: 08 C6 04 08 00 F2 2C 00 FE 08	06 C7 04 00 F2 2C FE 11
DEU12	Enable: 08 C6 04 08 00 F2 2D 01 FE 06 Disable: 08 C6 04 08 00 F2 2D 00 FE 07	06 C7 04 00 F2 2D FE 10
Transmit DEU12 Check Character	Enable: 08 C6 04 08 00 F2 2E 01 FE 05 Disable: 08 C6 04 08 00 F2 2E 00 FE 06	06 C7 04 00 F2 2E FE 0F
NEC-25(COOP25)	Enable: 08 C6 04 08 00 F2 45 01 FD EE Disable: 08 C6 04 08 00 F2 45 00 FD EF	06 C7 04 00 F2 45 FD F8
NEC-25(COOP25) Check	Enable: 08 C6 04 08 00 F2 46 01 FD ED Disable: 08 C6 04 08 00 F2 46 00 FD EE	06 C7 04 00 F2 46 FD F7
Transmit NEC-25(COOP25) Check Character	Enable: 08 C6 04 08 00 F2 47 01 FD EC Disable: 08 C6 04 08 00 F2 47 00 FD ED	06 C7 04 00 F2 47 FD F6
Set Lengths for NEC-25(COOP25)	One Discrete Length: 06: 0B C6 04 08 00 F5 08 06 F5 09 00 FD 22 Two Discrete Lengths: 04 and 06: 0B C6 04 08 00 F5 08 06 F5 09 04 FD 1E Length Within Range: 04 to 09: 0B C6 04 08 00 F5 08 04 F5 09 09 FD 1B	08 C7 04 00 F5 08 F5 09 FD 32

	Any Length: 0B C6 04 08 00 F5 08 00 F5 09 00 FD 28	
Brazilian Bank Code	Enable: 08 C6 04 08 00 F2 28 01 FE 0B Disable: 08 C6 04 08 00 F2 28 00 FE 0C	06 C7 04 00 F2 28 FE 15
COMPOSITE	Disable: 08 C6 04 08 00 F2 17 00 FE 1D Enable: 08 C6 04 08 00 F2 17 01 FE 1C	06 C7 04 00 F2 17 FE 26
EAN/UCC	Disable: 08 C6 04 08 00 F2 18 00 FE 1C Enable: 08 C6 04 08 00 F2 18 01 FE 1B	06 C7 04 00 F2 18 FE 25

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For any technical support, please contact us at: [support@rtscan.net](mailto:support@rtscan.net)

