

Virtual COM Command Sets

2D Image Scan Module



This Guide is intended for:

- **2D Image Scan Module: Z-5652 Ultra**

Revision History

Changes to the original manual are listed below:

Version	Date	Description of Version
1.0	2022-01-04	Initial release

Important Notice

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General Handling Precautions

Do not dispose the scanner in fire.
Do not put the scanner directly in the sun or by any heat source.
Do not use or store the scanner in a very humid place.
Do not drop the scanner or allow it to collide violently with other objects.
Do not take the scanner apart without authorization

Guidance for Printing

This manual is in A5 size. Please double check your printer setting before printing it out. When the barcodes are to be printed out for programming, the use of a high-resolution laser printer is strongly suggested for the best scan result.

Firmware Notice

To use all functions in this guide please update to the latest firmware.

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Protocol

General Packet Format

MSB ← ← Transmission Direction ← ← LSB						
Length	Source	ExID	ExCMD	Data	Checksum	
0x04 + N	0x57 or 0x52	Command	Command	D ₀ , D ₁ ... D _n	High Byte	Low Byte
1 Byte	1 Byte	1 Byte	1 Byte	N Bytes	2 Bytes	

Length: Length of message not including the check sum bytes.

- Minimum length 5: 0x05

Source: Identifies the types of packet data send.

- Host transmission to scanner: 0x57
- Scanner transmission to host: 0x52

ExID: Command Identifier.

System Settings

Items	ExID	Description
1	0x0B	Set Sleep / Wake Up
2	0x0E	Get Firmware Version / Scan Mode / Model Name
3	0xA0	Scan Control / Save Configuration
4	0xA1	Scanner Status Settings
5	0xA2	Output Data Settings
6	0xB0	Symbology Unified Settings

Symbology Features / Date Editing

Items	ExID	Description
1	0xB1	UPC-A
2	0xB2	UPC-E
3	0xB3	EAN-8
4	0xB4	EAN-13
5	0xB5	Code 128
6	0xB6	Code 39
7	0xB7	Code 93
8	0xB8	Code 32
9	0xB9	Code 11
10	0xBA	Codabar
11	0xBB	Plessey
12	0xBC	MSI
13	0xBD	Interleaved 2of 5
14	0xBE	IATA 2 of 5
15	0xBF	Matrix 2 of 5
16	0xD0	Straight 2 of 5
17	0xD1	Pharmacode
18	0xD2	GS1 DataBar 14
19	0xD3	GS1 DataBar Expanded
20	0xD4	GS1 DataBar Limit
21	0xD5	CC-A
22	0xD6	CC-B
23	0xD7	CC-C
24	0xD8	PDF417
25	0xD9	Micro PDF417
26	0xDA	Data Matrix
27	0xDB	QR Code
28	0xDC	Micro QR Code
29	0xDD	Aztec
30	0xDE	Maxicode

ExCMD: Command.Sleep / Wake Up (ExID: 0x0B)

Items	ExCMD	Description
1	0x01	Sleep / Wake Up Settings

Firmware Version / Scan Mode / Model Name (ExID: 0x0E)

Items	ExCMD	Description
1	0x0D	Get Firmware Version, Model Name or Scan Mode

Scan Control / Save Configuration (ExID: 0xA0)

Items	ExCMD	Description
1	0x01	Scan Control
2	0x08	Save Configuration

Scanner Status Settings (ExID: 0xA1)

Items	ExCMD	Description
1	0x01	Factory Default
2	0x02	Scan Mode
3	0x03	Aiming LED
4	0x04	Illumination LED
5	0x05	Beeper On / Off
6	0x07	Standby Time
7	0x08	Same Code Delay
8	0x0A	Motion Detect Sensibility Level
9	0x0C	Gain Level
10	0x0F	RS232 Baud Rate

Output Data Settings (ExID: 0xA2)

Items	ExCMD	Description
1	0x02	Transmit Code ID
2	0x03	Terminal Character
3	0x04	USB Speed
4	0x05	Country Code
5	0x06	Persian / Arabic / Japanese Language Encoding Support
6	0x07	Caps Lock State
7	0x08	Function Key Mapping Disable / Enable
8	0x09	Function Key Extended Disable / Enable
9	0x0A	USB Keyboard FN1 Substitution Disable / Enable
10	0x0B	USB Keyboard FN1 Substitution Char1
11	0x0C	USB Keyboard FN1 Substitution Char1
12	0x0D	USB Keyboard FN1 Substitution Char3
13	0x0E	USB Keyboard FN1 Substitution Numeric keypad Disable / Enable
14	0x0F	GS1-128 AIM ID Disable / Enable
15	0x10	USB Keyboard GS Substitution Disable / Enable
16	0x11	USB Keyboard GS Substitution Char1
17	0x12	USB Keyboard GS Substitution Char1
18	0x13	USB Keyboard GS Substitution Char3
19	0x14	USB Keyboard GS Substitution Numeric keypad Enable / Disable
20	0x15	GS1-2D AIM ID Disable / Enable
21	0x16	USB Keyboard FN1 Substitution None / Ctrl / Alt
22	0x17	USB Keyboard GS Substitution None / Ctrl / Alt

Symbology Unified Settings (ExID: 0xB0)

Items	ExCMD	Description
1	0x01	Readable Symbology
2	0x02	UPC / EAN Decoding of 2 / 5-Digit Supplemental Code Disable / Enable

UPC-A (ExID: 0xB1)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Number System Digit Disable / Enable
3	0x03	Check Digit Disable / Enable
4	0x04	Conversion to EAN13 Disable / Enable
5	0x05	Data Redundant Level

UPC-E (ExID: 0xB2)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Number System Digit Disable / Enable
3	0x03	Check Digit Disable / Enable
4	0x04	Conversion to UPC-A Disable / Enable
5	0x05	Data Redundant Level

EAN-8 (ExID: 0xB3)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Check Digit Disable / Enable
3	0x03	Conversion to EAN-13 Disable / Enable
4	0x04	Data Redundant Level

EAN-13 (ExID: 0xB4)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Check Digit Disable / Enable
3	0x03	Conversion to ISBN Disable / Enable
4	0x04	Conversion to ISSN Disable / Enable
5	0x05	Data Redundant Level

Code 128 (ExID: 0xB5)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Data Redundant Level

Code 39 (ExID: 0xB6)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Full ASCII Mode Disable / Enable
3	0x03	Start and Stop Characters Disable / Enable
4	0x04	Checksum
5	0x05	Data Redundant Level

Code 93 (ExID: 0xB7)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Data Redundant Level

Code 23 (ExID: 0xB8)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Transmit Alphabet "A" char Disable / Enable

Code 11 (ExID: 0xB9)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Checksum
3	0x03	Checksum Checking

Codabar (ExID: 0xBA)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Checksum
3	0x03	Start and Stop Characters Disable / Enable
4	0x04	Data Redundant Level

Plessey (ExID: 0xBB)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable

MSI / Plessey (ExID: 0xBC)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Mod Checksum
3	0x03	Checksum

Interleaved 2 of 5 (ExID: 0xBD)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Checksum
3	0x03	Quiet Zone Checking
4	0x04	Data Redundant Level

IATA 2 of 5 (ExID: 0xBE)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable

Matrix 2 of 5 (ExID: 0xBF)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Checksum

Straight 2 of 5 (ExID: 0xD0)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Checksum

Pharmacode (ExID: 0xD1)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable

GS1 DataBar 14 (ExID: 0xD2)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable

GS1 DataBar Expanded (ExID: 0xD3)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable

GS1 DataBar Limited (ExID: 0xD4)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable

CC-A (ExID: 0xD5)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable

CC-B (ExID: 0xD6)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable

CC-C (ExID: 0xD7)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable

PDF 417 (ExID: 0xD8)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Data Redundant Level

Micro PDF 417 (ExID: 0xD9)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable

Data Matrix (ExID: 0xDA)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Mirror Image Disable / Enable
3	0x03	Rectangular Disable / Enable

QR (ExID: 0xDB)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Mirror Image Disable / Enable
3	0x03	UTF8 Conversion

Micro QR (ExID: 0xDC)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Mirror Image Disable / Enable
3	0x03	UTF8 Conversion

Aztec (ExID: 0xDD)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable
2	0x02	Mirror Image Disable / Enable

MaxiCode (ExID: 0xDE)

Items	ExCMD	Description
1	0x01	Readable Disable / Enable

Prefix / Suffix (ExID: 0xB1~BF, 0xD0~0xDE)

Items	ExCMD	Description
1	0x10	Get Prefix
2	0x11	Get Suffix
3	0x12	Set Prefix
4	0x13	Set Suffix

Truncate / Return (ExID: 0xB1~BF, 0xD0~0xDE)

Items	ExCMD	Description
1	0x20	Get Truncate / Return Info.
2	0x21	Disable
3	0x22	Return leftmost
4	0x23	Truncate leftmost
5	0x24	Return rightmost
6	0x25	Truncate rightmost
7	0x26	Return middle
8	0x27	Truncate middle

Lengths Settings (ExID: 0xB5, 0xB6, 0xB7, 0xB9, 0xBA, 0xBC, 0xBD, 0xBF)

Items	ExCMD	Description
1	0x30	Get Lengths Settings.
2	0x31	One Discreate Length
3	0x32	Two Discreate Length
4	0x33	Length Within Range
5	0x34	Any Lengths

Data: Command data.

- D_0 : Most significant byte data
- D_n : Least significant byte data

ChecksumChecksum Calculation

Checksum = $0x10000 - [\text{Length}] - [\text{Source}] - [\text{ExID}] - [\text{ExCMD}] - [D_0 + D_1 + D_2 + D_3 + \dots + D_n]$

Special Packet Format

ACK

Scanner is received command. If command is valid, scanner send ACK to host.

MSB ← ← Transmission Direction ← ← LSB				
0x52	0xA0	0xEC	0xFE	0x74
5 Bytes				

NAK

Scanner is received command. If command is invalid, scanner send NAK to host.

MSB ← ← Transmission Direction ← ← LSB				
0x52	0xA0	0xE0	0xFE	0x80
5 Bytes				

Transmission

Transmission Type

Type	Description	Application
Set Scanner Data	Send command to set scanner, scanner return ACK.	Ex. Scan Mode, LED, Beep...etc.
Get Scanner Data	Send command to get scanner data, scanner return data.	Ex. Scan Mode, LED, Beep...etc data.

Set Scanner Data

Send command to set scanner, scanner return ACK.



Example: Set Auto Scan Mode

Host send set Auto Scan Mode command.						
Length	Source	ExID	ExCMD	Data	Checksum	
0x05	0x57	0xA1	0x02	0x08	0xFE	0xF9



Scanner return ACK.				
0x52	0xA0	0xEC	0xFE	0x74

Get Scanner Data

Send command to get scanner data, scanner return data.



-

Example: Get Scan Mode

Host send get Scan Mode command.

Length	Source	ExID	ExCMD	Data	Checksum	
0x05	0x57	0x0E	0x0D	0x03	0xFF	0x86

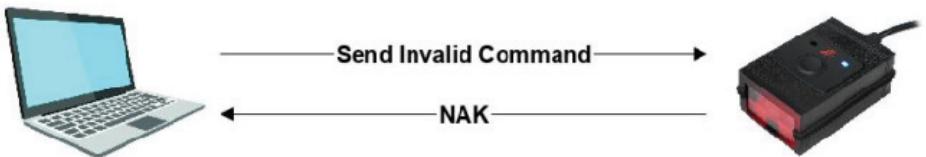


Scanner return Scan Mode data. (Data = 0x08 indicate Scan Mode is Auto Scan Mode)

Length	Source	ExID	ExCMD	Data	Checksum	
0x05	0x52	0x0E	0x0D	0x08	0xFF	0x86

Send Invalid Command

Send invalid command to scanner, scanner return NAK.



Example: Send Invalid Command

Host send invalid command.						
Length	Source	ExID	ExCMD	Data	Checksum	
0x05	0x57	0x0E	0x0D	0x00	0xFF	0x87



Scanner return NAK.				
0x52	0xA0	0xE0	0xFE	0x80

Command Description

Sleep / Wake Up Settings

Set scanner sleep / wake up make LED off / on. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0x0B	1 byte	
ExCMD	0x01	1 byte	
Data	0x00	1 byte	sleep
	0x01	1 byte	wake up

Firmware Version / Scan Mode / Model Name

Firmware Version

Get scanner firmware version.

Command	Data Value	Data Size	Description
ExID	0x0E	1 byte	
ExCMD	0x0D	1 byte	
Data	0x02	1 byte	Get firmware version. (host send)
	FW	N bytes character value.	FW: Return firmware version. (scanner send) Ex. FW200429 (8 bytes character value.)

Scan Mode

Get scanner scan mode

Command	Data Value	Data Size	Description
ExID	0x0E	1 byte	
ExCMD	0x0D	1 byte	
Data	0x03	1 byte	Get scan mode. (host send)
	SM	1 byte	SM: Return scan mode. (scanner send) 0x00 → Trigger Mode 0x02 → Continue Mode 0x08 → Auto Scan Mode 0x09 → High Resolution Mode 0x0A → Motion Mode 0x0B → Phone Mode

Model Name

Get scanner model name

Command	Data Value	Data Size	Description
ExID	0x0E	1 byte	
ExCMD	0x0D	1 byte	
Data	0x06	1 byte	Get model name. (host send)
	MN	N bytes character value.	MN: Return model name. (scanner send) Ex. Z-5652 Ultra (12 bytes character value.)

Scan Control / Save Configuration

Scan Control

Set scanner start or stop scan for Trigger mode. Scanner LED On/ Off.

Command	Data Value	Data Size	Description
ExID	0xA0	1 byte	
ExCMD	0x01	1 byte	
Data	0x00	1 byte	stop scan
	0x01	1 byte	start scan

Save Configuration

Save scanner configuration. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA0	1 byte	
ExCMD	0x08	1 byte	
Data	0x01	1 byte	

Scanner Status Settings

Factory Default

Set scanner factory default. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x01	1 byte	
Data	0x0F	1 byte	

Scan Mode

Set scanner scan mode. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x02	1 byte	
Data	0x00	1 byte	Trigger Mode
	0x02	1 byte	Continue Mode
	0x08	1 byte	Auto Scan Mode
	0x09	1 byte	High Resolution Mode
	0x0A	1 byte	Motion Mode
	0x0B	1 byte	Phone Mode

Aiming LED

Set scanner Aiming LED state. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x03	1 byte	
Data	0x00	1 byte	Auto
	0x01	1 byte	Always On
	0x02	1 byte	Always Off

Get scanner Aiming LED state.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x03	1 byte	
Data	0xFF	1 byte	Get Aiming LED state. (host send)
	AL	1 byte	AL: Return Aiming LED state. (scanner send) 0x00 → Auto 0x01 → Always On 0x02 → Always Off

Illumination LED

Set scanner Illumination LED state. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x04	1 byte	
Data	0x00	1 byte	Auto
	0x01	1 byte	Always On
	0x02	1 byte	Always Off

Get scanner Illumination LED state.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x04	1 byte	
Data	0xFF	1 byte	Get Illumination LED state. (host send)
	IL	1 byte	IL: Return Aiming LED state. (scanner send) 0x00 → Auto 0x01 → Always On 0x02 → Always Off

Beep

Beep On / Off

Set scanner beep on / off. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x05	1 byte	
Data	0x0D	1 byte	beep off
	0x0E	1 byte	beep on

Get scanner beep on / off.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x05	1 byte	
Data	0xFF	1 byte	Get beep on / off. (host send)
	BP	1 byte	BP: Return beep on / off. (scanner send) 0x0D → Beep Off 0x0E → Beep On

Beep Time

Set scanner beep time. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x0D	1 byte	
Data	0x00	1 byte	50msec
	0x01	1 byte	100msec
	0x02	1 byte	150msec
	0x03	1 byte	200msec

Get scanner beep time.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x0D	1 byte	
Data	0xFF	1 byte	Get beep time. (host send)
	BT	1 byte	BT: Return beep time. (scanner send) 0x00 → 50msec 0x01 → 100msec 0x02 → 150msec 0x03 → 200msec

Beep Frequency

Set scanner beep frequency. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x0E	1 byte	
Data	0x00	1 byte	Low
	0x01	1 byte	Medium
	0x02	1 byte	High

Get scanner beep frequency.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x0E	1 byte	
Data	0xFF	1 byte	Get beep frequency. (host send)
	BF	1 byte	BF: Return beep time. (scanner send) 0x00 → Low 0x01 → Medium 0x02 → High

Standby Time

Set scanner standby time. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x07	1 byte	
Data	0x00	1 byte	Never
	0x01	1 byte	1 minute
	0x03	1 byte	3 minutes
	0x05	1 byte	5 minutes
	0x0A	1 byte	10 minutes
	0x0F	1 byte	15 minutes
	0x14	1 byte	20 minutes
	0x19	1 byte	25 minutes
	0x1E	1 byte	30 minutes

Get scanner standby time.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x07	1 byte	
Data	0xFF	1 byte	Get standby time. (host send)
	ST	1 byte	ST: Return standby time. (scanner send) 0x00 → Never 0x01 → 1 minute 0x03 → 3 minutes 0x05 → 5 minutes 0x0A → 10 minutes 0x0F → 15 minutes 0x14 → 20 minutes 0x19 → 25 minutes 0x1E → 30 minutes

Same Code Delay

Set scanner same code delay. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x08	1 byte	
Data	0x00	1 byte	0msec
	0x04	1 byte	200msec
	0x0A	1 byte	500msec
	0x14	1 byte	1 sec
	0x1E	1 byte	1.5 sec
	0x28	1 byte	2 sec

Get scanner same code delay.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x08	1 byte	
Data	0xFF	1 byte	Get same code delay. (host send)
	SCD	1 byte	SCD: Return same code delay. (scanner send) 0x0A → 500msec 0x14 → 1 sec 0x1E → 1.5 sec 0x28 → 2 sec

Motion Detect Sensibility Level

Set scanner sensibility level. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x0A	1 byte	
Data	0x00	1 byte	Level 1
	0x01	1 byte	Level 2
	0x02	1 byte	Level 3
	0x03	1 byte	Level 4
	0x04	1 byte	Level 5

Get scanner sensibility level.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x0A	1 byte	
Data	0xFF	1 byte	Get sensibility level. (host send)
	SL	1 byte	SL: Return sensibility level. (scanner send) 0x00 → Level 1 0x01 → Level 2 0x02 → Level 3 0x03 → Level 4 0x04 → Level 5

Gain Level

Set scanner gain level. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x0C	1 byte	
Data	0x00	1 byte	Level 1
	0x01	1 byte	Level 2
	0x02	1 byte	Level 3
	0x03	1 byte	Level 4
	0x04	1 byte	Level 5

Get scanner gain level.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x0C	1 byte	
Data	0xFF	1 byte	Get gain level. (host send)
	GL	1 byte	GL: Return gain level. (scanner send) 0x00 → Level 1 0x01 → Level 2 0x02 → Level 3 0x03 → Level 4 0x04 → Level 5

RS232 Baud Rate

Set scanner RS232 baud rate. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x0F	1 byte	
Data	0x002580	3 bytes	9600
	0x004B00	3 bytes	19200
	0x009600	3 bytes	38400
	0x00E100	3 bytes	57600
	0x01C200	3 bytes	115200

Get scanner RS232 baud rate.

Command	Data Value	Data Size	Description
ExID	0xA1	1 byte	
ExCMD	0x0F	1 byte	
Data	0xFF	1 byte	Get RS232 baud rate. (host send)
	BR	3 byte	BR: Return RS232 baud rate. (scanner send) 0x002580 → 9600 0x004B00 → 19200 0x009600 → 38400 0x00E100 → 57600 0x01C200 → 115200

Output Data Settings

Transmit Code ID

Set scanner transmit code ID. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x02	1 byte	
Data	0x00	1 byte	None
	0x01	1 byte	AIM ID
	0x02	1 byte	Factory Standard ID

Get scanner transmit code ID.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get transmit code ID. (host send)
	TC	1 byte	TC: Return transmit code ID. (scanner send) 0x00 → None 0x01 → AIM ID 0x02 → Factory Standard ID

Terminal Character

Set scanner terminal character. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x03	1 byte	
Data	0x00	1 byte	None
	0x01	1 byte	CR/LF
	0x02	1 byte	CR
	0x03	1 byte	TAB
	0x04	1 byte	LF

Get scanner terminal character.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x03	1 byte	
Data	0xFF	1 byte	Get terminal character. (host send)
	TCID	1 byte	TCID: Return terminal character. (scanner send) 0x00 → None 0x01 → CR/LF 0x02 → CR 0x03 → TAB 0x04 → LF

USB Speed

Set scanner USB speed. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x04	1 byte	
Data	0x00	1 byte	USB 2.0
	0x01	1 byte	USB 1.1

Get scanner USB speed.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x04	1 byte	
Data	0xFF	1 byte	Get USB speed. (host send)
	Speed	1 byte	Speed: Return USB speed. (scanner send) 0x00 → USB 2.0 0x01 → USB 1.1

Country Code

Set scanner country code. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x05	1 byte	
Data	Code	1 byte	Country Code Value

Get scanner country code.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x05	1 byte	
Data	0xFF	1 byte	Get country code. (host send)
	Code	1 byte	Code: Return country code. (scanner send) Country Code Value

Country Code Value

Items	Country	Code
1	USA	0x00
2	Belgium	0x01
3	Britain	0x02
4	Denmark	0x03
5	France	0x04
6	Germany	0x05
7	Italy	0x06
8	Norway	0x07
9	Portugal	0x08
10	Spain	0x09
11	Sweden	0x0A
12	Switzerland	0x0B
13	Japan	0x0C
14	Hungary	0x0D
15	Czech Republic	0x0E
16	Slovakia	0x0F
17	Romania	0x10
18	Croatia	0x11
19	Poland	0x12
20	Finland	0x13
21	United Kingdom	0x14
22	Russia	0x15
23	Turkey-Q	0x16
24	Brazil	0x17
25	Turkey-F	0x18
26	Alt Mode	0x63

Persian / Arabic / Japanese Language Encoding Support

Persian / Arabic Language Encoding Support

Set scanner Persian / Arabic language encoding support. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x06	1 byte	
Data	0x00	1 byte	UTF-8
	0x0A	1 byte	ISO 8859-6
	0x14	1 byte	CP1256

Get scanner Persian / Arabic language encoding support.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x06	1 byte	
Data	0xFF	1 byte	Get Persian / Arabic language encoding support. (host send)
	PALES	1 byte	PALES: Return Persian / Arabic language encoding support. (scanner send) 0x00 → UTF-8 0x0A → ISO 8859-6 0x14 → CP1256

Japanese Language Encoding Support

Set scanner Japanese language encoding support. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x06	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get scanner Japanese language encoding support.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x06	1 byte	
Data	0xFF	1 byte	Get Japanese language encoding support. (host send)
	JLES	1 byte	JLES: Return Japanese language encoding support. (scanner send) 0x0D → Disable 0x0E → Enable

Caps Lock State

Set scanner caps lock state. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x07	1 byte	
Data	0x00	1 byte	Caps Lock Off
	0x01	1 byte	Caps Lock On
	0x02	1 byte	Upper Case
	0x03	1 byte	Lower Case
	0x04	1 byte	Override

Get scanner caps lock state.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x07	1 byte	
Data	0xFF	1 byte	Get caps lock state. (host send)
	CLS	1 byte	CLS: Return caps lock state. (scanner send) 0x00 → Caps Lock Off 0x01 → Caps Lock On 0x02 → Upper Case 0x03 → Lower Case 0x04 → Override

Function Key

Function Key Mapping

Set scanner function key mapping. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x08	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get scanner function key mapping.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x08	1 byte	
Data	0xFF	1 byte	Get function key mapping. (host send)
	FKM	1 byte	FKM: Return function key mapping. (scanner send) 0x0D → Disable 0x0E → Enable

Function Key Extended

Set scanner function key extended. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x09	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get scanner function key extended.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x09	1 byte	
Data	0xFF	1 byte	Get function key extended. (host send)
	FKE	1 byte	FKE: function key extended. (scanner send) 0x0D → Disable 0x0E → Enable

USB Keyboard FN1 Substitution

Disable / Enable

Set scanner USB Keyboard FN1 Substitution Disable / Enable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x0A	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get scanner USB Keyboard FN1 Substitution Disable / Enable.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x0A	1 byte	
Data	0xFF	1 byte	Get USB Keyboard FN1 Substitution Disable / Enable. (host send)
	FNDE	1 byte	FNDE: Return USB Keyboard FN1 Substitution Disable / Enable. (scanner send) 0x0D → Disable 0x0E → Enable

Char1

Set scanner USB Keyboard FN1 Substitution Char1. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x0B	1 byte	
Data	Char1	2 bytes	USB Keyboard Char1 Table

Get scanner USB Keyboard FN1 Substitution Char1.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x0B	1 byte	
Data	0xFF	1 byte	Get USB Keyboard FN1 Substitution Char1. (host send)
	Char1	2 byte	Return USB Keyboard FN1 Substitution Char1. (scanner send) USB Keyboard Char1 Table

Char2

Set scanner USB Keyboard FN1 Substitution Char2. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x0C	1 byte	
Data	Char2	2 bytes	USB Keyboard Char2 / Char3 Table

Get scanner USB Keyboard FN1 Substitution Char2.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x0C	1 byte	
Data	0xFF	1 byte	Get USB Keyboard FN1 Substitution Char2. (host send)
	Char2	2 byte	Return USB Keyboard FN1 Substitution Char2. (scanner send) USB Keyboard Char2 / Char3 Table

Char3

Set scanner USB Keyboard FN1 Substitution Char3. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x0D	1 byte	
Data	Char3	2 bytes	USB Keyboard Char2 / Char3 Table

Get scanner USB Keyboard FN1 Substitution Char3.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x0D	1 byte	
Data	0xFF	1 byte	Get USB Keyboard FN1 Substitution Char3. (host send)
	Char3	2 byte	Return USB Keyboard FN1 Substitution Char3. (scanner send) USB Keyboard Char2 / Char3 Table

Ctrl / Alt

Set scanner USB Keyboard FN1 Substitution Ctrl / Alt. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x16	1 byte	
Data	0x00	1 bytes	None
	0x01	1 bytes	Ctrl
	0x04	1 bytes	Alt

Get scanner USB Keyboard FN1 Substitution Ctrl / Alt.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x16	1 byte	
Data	0xFF	1 byte	Get USB Keyboard FN1 Substitution Ctrl / Alt. (host send)
	CA	1 byte	CA: Return USB Keyboard FN1 Substitution Ctrl / Alt. (scanner send) 0x00 → None 0x01 → Ctrl 0x04 → Alt

Numeric Keypad

Set scanner USB Keyboard FN1 Substitution Numeric Keypad Disable / Enable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x0E	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get scanner USB Keyboard FN1 Substitution Numeric Keypad Disable / Enable.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x0E	1 byte	
Data	0xFF	1 byte	Get USB Keyboard FN1 Substitution Numeric Keypad Disable / Enable. (host send)
	FNNK	1 byte	FNNK: Return USB Keyboard FN1 Substitution Numeric Keypad Disable / Enable. (scanner send) 0x0D → Disable 0x0E → Enable

GS1-128 AIM ID

Set scanner GS1-128 AIM ID Disable / Enable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x0F	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get scanner GS1-128 AIM ID Disable / Enable.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x0F	1 byte	
Data	0xFF	1 byte	Get GS1-128 AIM ID Disable / Enable. (host send)
	G128ID	1 byte	G128ID: Return GS1-128 AIM ID Disable / Enable. (scanner send) 0x0D → Disable 0x0E → Enable

USB Keyboard GS Substitution

Disable / Enable

Set scanner USB Keyboard GS Substitution Disable / Enable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x0A	1 byte	
Data	0x10	1 byte	Disable
	0x0E	1 byte	Enable

Get scanner USB Keyboard GS Substitution Disable / Enable.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x10	1 byte	
Data	0xFF	1 byte	Get USB Keyboard GS Substitution Disable / Enable. (host send)
	GSDE	1 byte	GSDE: Return USB Keyboard GS Substitution Disable / Enable. (scanner send) 0x0D → Disable 0x0E → Enable

Char1

Set scanner USB Keyboard GS Substitution Char1. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x11	1 byte	
Data	Char1	2 bytes	USB Keyboard Char1 Table

Get scanner USB Keyboard GS Substitution Char1.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x11	1 byte	
Data	0xFF	1 byte	Get USB Keyboard GS Substitution Char1. (host send)
	Char1	2 byte	Return USB Keyboard GS Substitution Char1. (scanner send) USB Keyboard Char1 Table

Char2

Set scanner USB Keyboard GS Substitution Char2. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x12	1 byte	
Data	Char2	2 bytes	USB Keyboard Char2 / Char3 Table

Get scanner USB Keyboard GS Substitution Char2.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x12	1 byte	
Data	0xFF	1 byte	Get USB Keyboard GS Substitution Char2. (host send)
	Char2	2 byte	Return USB Keyboard GS Substitution Char2. (scanner send) USB Keyboard Char2 / Char3 Table

Char3

Set scanner USB Keyboard GS Substitution Char3. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x13	1 byte	
Data	Char3	2 bytes	USB Keyboard Char2 / Char3 Table

Get scanner USB Keyboard GS Substitution Char3.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x13	1 byte	
Data	0xFF	1 byte	Get USB Keyboard GS Substitution Char3. (host send)
	Char3	2 byte	Return USB Keyboard GS Substitution Char3. (scanner send) USB Keyboard Char2 / Char3 Table

Ctrl / Alt

Set scanner USB Keyboard GS Substitution Ctrl / Alt. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x17	1 byte	
Data	0x00	1 bytes	None
	0x01	1 bytes	Ctrl
	0x04	1 bytes	Alt

Get scanner USB Keyboard GS Substitution Ctrl / Alt.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x17	1 byte	
Data	0xFF	1 byte	Get USB Keyboard GS Substitution Ctrl / Alt. (host send)
	CA	1 byte	CA: Return USB Keyboard GS Substitution Ctrl / Alt. (scanner send) 0x00 → None 0x01 → Ctrl 0x04 → Alt

Numeric keypad

Set scanner USB Keyboard GS Substitution Numeric Keypad Disable / Enable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x0E	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get scanner USB Keyboard GS Substitution Numeric Keypad Disable / Enable.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x0E	1 byte	
Data	0xFF	1 byte	Get USB Keyboard GS Substitution Numeric Keypad Disable / Enable. (host send)
	FNNK	1 byte	FNNK: Return USB Keyboard GS Substitution Numeric Keypad Disable / Enable. (scanner send) 0x0D → Disable 0x0E → Enable

GS1-2D AIM ID

Set scanner GS1-2D AIM ID Disable / Enable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x15	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get scanner GS1-2D AIM ID Disable / Enable.

Command	Data Value	Data Size	Description
ExID	0xA2	1 byte	
ExCMD	0x15	1 byte	
Data	0xFF	1 byte	Get GS1-2D AIM ID Disable / Enable. (host send)
	G2DID	1 byte	G2DID: Return GS1-2D AIM ID Disable / Enable. (scanner send) 0x0D → Disable 0x0E → Enable

USB Keyboard Char1 Table

a	0x0004	A	0x0204	1	0x001E	[	0x002F	Tab	0x002B
b	0x0005	B	0x0205	2	0x001F	\	0x0031	Escape	0x0029
c	0x0006	C	0x0206	3	0x0020	]	0x0030	Space	0x002C
d	0x0007	D	0x0207	4	0x0021	!	0x021E	Back	0x002A
e	0x0008	E	0x0208	5	0x0022	@	0x021F	Insert	0x0049
f	0x0009	F	0x0209	6	0x0023	#	0x0220	Delete	0x004C
g	0x000A	G	0x020A	7	0x0024	\$	0x0221	Home	0x004A
h	0x000B	H	0x020B	8	0x0025	%	0x0222	End	0x004D
i	0x000C	I	0x020C	9	0x0026	^	0x0223	PageDown	0x004E
j	0x000D	J	0x020D	0	0x0027	&	0x0224	PageUp	0x004B
k	0x000E	K	0x020E			*	0x0225	Up	0x0052
l	0x000F	L	0x020F			(	0x0226	Down	0x0051
m	0x0010	M	0x0210			)	0x0227	Left	0x0050
n	0x0011	N	0x0211			_	0x022D	Right	0x004F
o	0x0012	O	0x0212			-	0x002D	F1	0x003A
p	0x0013	P	0x0213			+	0x022E	F2	0x003B
q	0x0014	Q	0x0214			=	0x002E	F3	0x003C
r	0x0015	R	0x0215			<	0x0236	F4	0x003D
s	0x0016	S	0x0216			>	0x0237	F5	0x003E
t	0x0017	T	0x0217			:	0x0233	F6	0x003F
u	0x0018	U	0x0218			?	0x0238	F7	0x0040
v	0x0019	V	0x0219			,	0x0036	F8	0x0041
w	0x001A	W	0x021A			;	0x0033	F9	0x0042
x	0x001B	X	0x021B			Enter	0x0028	F10	0x0043
y	0x001C	Y	0x021C					F11	0x0044
z	0x001D	Z	0x021D					F12	0x0045

USB Keyboard Char2 / Char3 Table

A	0x0204	None	0x0000
B	0x0205	1	0x001E
C	0x0206	2	0x001F
D	0x0207	3	0x0020
E	0x0208	4	0x0021
F	0x0209	5	0x0022
G	0x020A	6	0x0023
H	0x020B	7	0x0024
I	0x020C	8	0x0025
J	0x020D	9	0x0026
K	0x020E	0	0x0027
L	0x020F		
M	0x0210		
N	0x0211		
O	0x0212		
P	0x0213		
Q	0x0214		
R	0x0215		
S	0x0216		
T	0x0217		
U	0x0218		
V	0x0219		
W	0x021A		
X	0x021B		
Y	0x021C		
Z	0x021D		

Symbology Unified Settings

Readable Symbology

Set scanner readable symbology. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB0	1 byte	
ExCMD	0x01	1 byte	
Data	0x01	1 byte	1D Barcode
	0x02	1 byte	2D Barcode
	0x0D	1 byte	Default Barcode
	0x0E	1 byte	All Barcode

Get scanner readable symbology.

Command	Data Value	Data Size	Description
ExID	0xB0	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable symbology. (host send)
	RS	1 byte	RS: Return readable symbology. (scanner send) 0x01 → 1D Barcode 0x02 → 2D Barcode 0x0D → Default Barcode 0x0E → All Barcode

UPC / EAN Decoding of 2 / 5-Digit Supplemental Code

Set scanner UPC / EAN decoding of 2 / 5-digit supplemental code. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB0	1 byte	
ExCMD	0x02	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get scanner UPC / EAN decoding of 2 / 5-digit supplemental code.

Command	Data Value	Data Size	Description
ExID	0xB0	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get UPC / EAN decoding of 2 / 5-digit supplemental code. (host send)
	DSC	1 byte	DSC: Return UPC / EAN decoding of 2 / 5-digit supplemental code. (scanner send) 0x0D → Disable 0x0E → Enable

UPC-A

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB1	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xB1	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Number System Digit

Set barcode output number system digit. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB1	1 byte	
ExCMD	0x02	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output number system digit.

Command	Data Value	Data Size	Description
ExID	0xB1	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get number system digit. (host send)
	NSD	1 byte	NSD: Return number system digit. (scanner send) 0x0D → Disable 0x0E → Enable

Check Digit

Set barcode output check digit. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB1	1 byte	
ExCMD	0x03	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output check digit.

Command	Data Value	Data Size	Description
ExID	0xB1	1 byte	
ExCMD	0x03	1 byte	
Data	0xFF	1 byte	Get check digit. (host send)
	CD	1 byte	CD: Return check digit. (scanner send) 0x0D → Disable 0x0E → Enable

Conversion to EAN-13

Set barcode output conversion to EAN-13. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB1	1 byte	
ExCMD	0x04	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output conversion to EAN-13.

Command	Data Value	Data Size	Description
ExID	0xB1	1 byte	
ExCMD	0x04	1 byte	
Data	0xFF	1 byte	Get conversion to EAN-13. (host send)
	CTE	1 byte	CTE: Return conversion to EAN-13. (scanner send) 0x0D → Disable 0x0E → Enable

Data Redundant

Set barcode data redundant. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB1	1 byte	
ExCMD	0x05	1 byte	
Data	0x00	1 byte	Off
	0x01	1 byte	Level 1
	0x02	1 byte	Level 2
	0x03	1 byte	Level 3

Get barcode data redundant.

Command	Data Value	Data Size	Description
ExID	0xB1	1 byte	
ExCMD	0x05	1 byte	
Data	0xFF	1 byte	Get data redundant. (host send)
	DR	1 byte	DR: Return data redundant. (scanner send) 0x00 → Off 0x01 → Level 1 0x02 → Level 2 0x03 → Level 3

UPC-E

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB2	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xB2	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Number System Digit

Set barcode output number system digit. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB2	1 byte	
ExCMD	0x02	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output number system digit.

Command	Data Value	Data Size	Description
ExID	0xB2	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get number system digit. (host send)
	NSD	1 byte	NSD: Return number system digit. (scanner send) 0x0D → Disable 0x0E → Enable

Check Digit

Set barcode output check digit. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB2	1 byte	
ExCMD	0x03	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output check digit.

Command	Data Value	Data Size	Description
ExID	0xB2	1 byte	
ExCMD	0x03	1 byte	
Data	0xFF	1 byte	Get check digit. (host send)
	CD	1 byte	CD: Return check digit. (scanner send) 0x0D → Disable 0x0E → Enable

Conversion to UPC-A

Set barcode output conversion to UPC-A. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB2	1 byte	
ExCMD	0x04	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output conversion to UPC-A.

Command	Data Value	Data Size	Description
ExID	0xB2	1 byte	
ExCMD	0x04	1 byte	
Data	0xFF	1 byte	Get conversion to UPC-A. (host send)
	CTU	1 byte	CTU: Return conversion to UPC-A. (scanner send) 0x0D → Disable 0x0E → Enable

Data Redundant

Set barcode data redundant. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB2	1 byte	
ExCMD	0x05	1 byte	
Data	0x00	1 byte	Off
	0x01	1 byte	Level 1
	0x02	1 byte	Level 2
	0x03	1 byte	Level 3

Get barcode data redundant.

Command	Data Value	Data Size	Description
ExID	0xB2	1 byte	
ExCMD	0x05	1 byte	
Data	0xFF	1 byte	Get data redundant. (host send)
	DR	1 byte	DR: Return data redundant. (scanner send) 0x00 → Off 0x01 → Level 1 0x02 → Level 2 0x03 → Level 3

EAN-8

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB3	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xB3	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Check Digit

Set barcode output check digit. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB3	1 byte	
ExCMD	0x02	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output check digit.

Command	Data Value	Data Size	Description
ExID	0xB3	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get check digit. (host send)
	CD	1 byte	CD: Return check digit. (scanner send) 0x0D → Disable 0x0E → Enable

Conversion to EAN-13

Set barcode output conversion to EAN-13. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB3	1 byte	
ExCMD	0x03	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output conversion to EAN-13.

Command	Data Value	Data Size	Description
ExID	0xB3	1 byte	
ExCMD	0x03	1 byte	
Data	0xFF	1 byte	Get conversion to EAN-13. (host send)
	CTE	1 byte	CTE: Return conversion to EAN-13. (scanner send) 0x0D → Disable 0x0E → Enable

Data Redundant

Set barcode data redundant. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB3	1 byte	
ExCMD	0x04	1 byte	
Data	0x00	1 byte	Off
	0x01	1 byte	Level 1
	0x02	1 byte	Level 2
	0x03	1 byte	Level 3

Get barcode data redundant.

Command	Data Value	Data Size	Description
ExID	0xB3	1 byte	
ExCMD	0x04	1 byte	
Data	0xFF	1 byte	Get data redundant. (host send)
	DR	1 byte	DR: Return data redundant. (scanner send) 0x00 → Off 0x01 → Level 1 0x02 → Level 2 0x03 → Level 3

EAN-13

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB4	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xB4	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Check Digit

Set barcode output check digit. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB4	1 byte	
ExCMD	0x02	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output check digit.

Command	Data Value	Data Size	Description
ExID	0xB4	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get check digit. (host send)
	CD	1 byte	CD: Return check digit. (scanner send) 0x0D → Disable 0x0E → Enable

Conversion to ISBN

Set barcode output conversion to ISBN. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB4	1 byte	
ExCMD	0x03	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output conversion to ISBN.

Command	Data Value	Data Size	Description
ExID	0xB4	1 byte	
ExCMD	0x03	1 byte	
Data	0xFF	1 byte	Get conversion to ISBN. (host send)
	CISBN	1 byte	CISBN: Return conversion to ISBN. (scanner send) 0x0D → Disable 0x0E → Enable

Conversion to ISSN

Set barcode output conversion to ISSN. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB4	1 byte	
ExCMD	0x04	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output conversion to ISSN.

Command	Data Value	Data Size	Description
ExID	0xB4	1 byte	
ExCMD	0x04	1 byte	
Data	0xFF	1 byte	Get conversion to ISSN. (host send)
	CISSN	1 byte	CISSN: Return conversion to ISSN. (scanner send) 0x0D → Disable 0x0E → Enable

Data Redundant

Set barcode data redundant. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB4	1 byte	
ExCMD	0x05	1 byte	
Data	0x00	1 byte	Off
	0x01	1 byte	Level 1
	0x02	1 byte	Level 2
	0x03	1 byte	Level 3

Get barcode data redundant.

Command	Data Value	Data Size	Description
ExID	0xB4	1 byte	
ExCMD	0x05	1 byte	
Data	0xFF	1 byte	Get data redundant. (host send)
	DR	1 byte	DR: Return data redundant. (scanner send) 0x00 Off 0x01 → Level 1 0x02 → Level 2 0x03 → Level 3

Code 128

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB5	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xB5	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Data Redundant

Set barcode data redundant. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB5	1 byte	
ExCMD	0x02	1 byte	
Data	0x00	1 byte	Off
	0x01	1 byte	Level 1
	0x02	1 byte	Level 2
	0x03	1 byte	Level 3

Get barcode data redundant.

Command	Data Value	Data Size	Description
ExID	0xB5	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get data redundant. (host send)
	DR	1 byte	DR: Return data redundant. (scanner send) 0x00 → Off 0x01 → Level 1 0x02 → Level 2 0x03 → Level 3

Code 39

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB6	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xB6	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Full ASCII Mode

Set barcode output full ASCII mode. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB6	1 byte	
ExCMD	0x02	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output full ASCII mode.

Command	Data Value	Data Size	Description
ExID	0xB6	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get full ASCII mode. (host send)
	FAM	1 byte	FAM: Return full ASCII mode. (scanner send) 0x0D → Disable 0x0E → Enable

Start and Stop Characters

Set barcode output start and stop characters. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB6	1 byte	
ExCMD	0x03	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output start and stop characters.

Command	Data Value	Data Size	Description
ExID	0xB6	1 byte	
ExCMD	0x03	1 byte	
Data	0xFF	1 byte	Get start and stop characters. (host send)
	SSC	1 byte	SSC: Return start and stop characters. (scanner send) 0x0D → Disable 0x0E → Enable

Checksum

Set barcode output checksum. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB6	1 byte	
ExCMD	0x04	1 byte	
Data	0x01	1 byte	Disable checksum
	0x02	1 byte	Enable checksum and send check
	0x03	1 byte	Enable checksum and strip check

Get barcode output checksum.

Command	Data Value	Data Size	Description
ExID	0xB6	1 byte	
ExCMD	0x04	1 byte	
Data	0xFF	1 byte	Get checksum. (host send)
	CHKS	1 byte	CHKS: Return checksum. (scanner send) 0x01 → Disable checksum 0x02 → Enable checksum and send check 0x03 → Enable checksum and strip check

Data Redundant

Set barcode data redundant. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB6	1 byte	
ExCMD	0x05	1 byte	
Data	0x00	1 byte	Off
	0x01	1 byte	Level 1
	0x02	1 byte	Level 2
	0x03	1 byte	Level 3

Get barcode data redundant.

Command	Data Value	Data Size	Description
ExID	0xB6	1 byte	
ExCMD	0x05	1 byte	
Data	0xFF	1 byte	Get data redundant. (host send)
	DR	1 byte	DR: Return data redundant. (scanner send) 0x00 → Off 0x01 → Level 1 0x02 → Level 2 0x03 → Level 3

Code 93

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB7	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xB7	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Data Redundant

Set barcode data redundant. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB7	1 byte	
ExCMD	0x02	1 byte	
Data	0x00	1 byte	Off
	0x01	1 byte	Level 1
	0x02	1 byte	Level 2
	0x03	1 byte	Level 3

Get barcode data redundant.

Command	Data Value	Data Size	Description
ExID	0xB7	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get data redundant. (host send)
	DR	1 byte	DR: Return data redundant. (scanner send) 0x00 → Off 0x01 → Level 1 0x02 → Level 2 0x03 → Level 3

Code 32

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB8	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xB8	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Transmit Alphabet "A" char

Set barcode output transmit alphabet "A" char. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB8	1 byte	
ExCMD	0x02	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output transmit alphabet "A" char.

Command	Data Value	Data Size	Description
ExID	0xB8	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get transmit alphabet "A" char. (host send)
	AC	1 byte	AC: Return transmit alphabet "A" char. (scanner send) 0x0D → Disable 0x0E → Enable

Code 11

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB9	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xB9	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Checksum

Set barcode output checksum. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB9	1 byte	
ExCMD	0x02	1 byte	
Data	0x0D	1 byte	Strip checksum character
	0x0E	1 byte	Output checksum character

Get barcode output checksum.

Command	Data Value	Data Size	Description
ExID	0xB9	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get checksum. (host send)
	CHKS	1 byte	CHKS: Return checksum. (scanner send) 0x0D → Strip checksum character 0x0E → Output checksum character

Checksum Checking

Set barcode output checksum checking. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xB9	1 byte	
ExCMD	0x03	1 byte	
Data	0x01	1 byte	Disable checksum checking
	0x02	1 byte	Enable 1-digit checksum checking
	0x03	1 byte	Enable 2-digit checksum checking

Get barcode output checksum checking.

Command	Data Value	Data Size	Description
ExID	0xB9	1 byte	
ExCMD	0x03	1 byte	
Data	0xFF	1 byte	Get checksum checking. (host send)
	CC	1 byte	CC: Return checksum checking. (scanner send) 0x01 → Disable checksum checking 0x02 → Enable 1-digit checksum checking 0x03 → Enable 2-digit checksum checking

Codabar

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xBA	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xBA	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Checksum

Set barcode output checksum. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xBA	1 byte	
ExCMD	0x02	1 byte	
Data	0x01	1 byte	Disable checksum
	0x02	1 byte	Enable checksum and send check
	0x03	1 byte	Enable checksum and strip check

Get barcode output checksum.

Command	Data Value	Data Size	Description
ExID	0xBA	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get checksum. (host send)
	CHKS	1 byte	CHKS: Return checksum. (scanner send) 0x01 → Disable checksum 0x02 → Enable checksum and send check 0x03 → Enable checksum and strip check

Start and Stop Characters

Set barcode output start and stop characters. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xBA	1 byte	
ExCMD	0x03	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output start and stop characters.

Command	Data Value	Data Size	Description
ExID	0xBA	1 byte	
ExCMD	0x03	1 byte	
Data	0xFF	1 byte	Get start and stop characters. (host send)
	SSC	1 byte	SSC: Return start and stop characters. (scanner send) 0x0D → Disable 0x0E → Enable

Data Redundant

Set barcode data redundant. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xBA	1 byte	
ExCMD	0x04	1 byte	
Data	0x00	1 byte	Off
	0x01	1 byte	Level 1
	0x02	1 byte	Level 2
	0x03	1 byte	Level 3

Get barcode data redundant.

Command	Data Value	Data Size	Description
ExID	0xBA	1 byte	
ExCMD	0x04	1 byte	
Data	0xFF	1 byte	Get data redundant. (host send)
	DR	1 byte	DR: Return data redundant. (scanner send) 0x00 → Off 0x01 → Level 1 0x02 → Level 2 0x03 → Level 3

Plessey

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xBB	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xBB	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

MSI / Plessey

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xBC	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xBC	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Checksum

Set barcode checksum. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xBC	1 byte	
ExCMD	0x02	1 byte	
Data	0x01	1 byte	Disable checksum
	0x02	1 byte	Mod 10 checksum
	0x03	1 byte	Mod 10/10 checksum
	0x04	1 byte	

Get barcode checksum.

Command	Data Value	Data Size	Description
ExID	0xBC	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get checksum. (host send)
	MCHK	1 byte	MCHK: Return checksum. (scanner send) 0x01 → Disable checksum 0x02 → Mod 10 checksum 0x03 → Mod 10/10 checksum 0x04 → Mod 11/10 checksum

Output Checksum

Set barcode output checksum. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xBC	1 byte	
ExCMD	0x03	1 byte	
Data	0x0D	1 byte	Strip checksum character
	0x0E	1 byte	Output checksum character

Get barcode output checksum.

Command	Data Value	Data Size	Description
ExID	0xBC	1 byte	
ExCMD	0x03	1 byte	
Data	0xFF	1 byte	Get checksum. (host send)
	CHKS	1 byte	CHKS: Return checksum. (scanner send) 0x0D → Strip checksum character 0x0E → Output checksum character

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Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xBD	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xBD	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Checksum

Set barcode output checksum. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xBD	1 byte	
ExCMD	0x02	1 byte	
Data	0x01	1 byte	Disable checksum
	0x02	1 byte	Enable checksum and send check
	0x03	1 byte	Enable checksum and strip check

Get barcode output checksum.

Command	Data Value	Data Size	Description
ExID	0xBD	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get checksum. (host send)
	CHKS	1 byte	CHKS: Return checksum. (scanner send) 0x01 → Disable checksum 0x02 → Enable checksum and send check 0x03 → Enable checksum and strip check

Quiet Zone Checking

Set barcode Quiet Zone Checking. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xBD	1 byte	
ExCMD	0x03	1 byte	
Data	0x01	1 byte	Default quiet zone checking
	0x02	1 byte	Smaller quiet zone checking

Get barcode Quiet Zone Checking.

Command	Data Value	Data Size	Description
ExID	0xBD	1 byte	
ExCMD	0x03	1 byte	
Data	0xFF	1 byte	Get Quiet Zone Checking. (host send)
	QZC	1 byte	QZC: Return Quiet Zone Checking. (scanner send) 0x01 → Default quiet zone checking 0x02 → Smaller quiet zone checking

Data Redundant

Set barcode data redundant. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xBD	1 byte	
ExCMD	0x04	1 byte	
Data	0x00	1 byte	Off
	0x01	1 byte	Level 1
	0x02	1 byte	Level 2
	0x03	1 byte	Level 3

Get barcode data redundant.

Command	Data Value	Data Size	Description
ExID	0xBD	1 byte	
ExCMD	0x04	1 byte	
Data	0xFF	1 byte	Get data redundant. (host send)
	DR	1 byte	DR: Return data redundant. (scanner send) 0x00 → Off 0x01 → Level 1 0x02 → Level 2 0x03 → Level 3

IATA 2 of 5

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xBE	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xBE	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Matrix 2 of 5

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xBF	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xBF	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Checksum

Set barcode output checksum. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xBF	1 byte	
ExCMD	0x02	1 byte	
Data	0x01	1 byte	Disable checksum
	0x02	1 byte	Enable checksum and send check
	0x03	1 byte	Enable checksum and strip check

Get barcode output checksum.

Command	Data Value	Data Size	Description
ExID	0xBF	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get checksum. (host send)
	CHKS	1 byte	CHKS: Return checksum. (scanner send) 0x01 → Disable checksum 0x02 → Enable checksum and send check 0x03 → Enable checksum and strip check

Straight 2 of 5

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xD0	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xD0	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Checksum

Set barcode output checksum. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xD0	1 byte	
ExCMD	0x02	1 byte	
Data	0x01	1 byte	Disable checksum
	0x02	1 byte	Enable checksum and send check
	0x03	1 byte	Enable checksum and strip check

Get barcode output checksum.

Command	Data Value	Data Size	Description
ExID	0xD0	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get checksum. (host send)
	CHKS	1 byte	CHKS: Return checksum. (scanner send) 0x01 → Disable checksum 0x02 → Enable checksum and send check 0x03 → Enable checksum and strip check

Pharmacode

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xD1	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xD1	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

GS1 DataBar 14

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xD2	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xD2	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

GS1 DataBar Expanded

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xD3	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xD3	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

GS1 DataBar Limited

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xD4	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xD4	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

CC-A

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xD5	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xD5	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

CC-B

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xD6	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xD6	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

CC-C

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xD7	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xD7	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

PDF 417

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xD8	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xD8	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Data Redundant

Set barcode data redundant. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xD8	1 byte	
ExCMD	0x02	1 byte	
Data	0x00	1 byte	Off
	0x01	1 byte	Level 1
	0x02	1 byte	Level 2
	0x03	1 byte	Level 3

Get barcode data redundant.

Command	Data Value	Data Size	Description
ExID	0xD8	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get data redundant. (host send)
	DR	1 byte	DR: Return data redundant. (scanner send) 0x00 → Off 0x01 → Level 1 0x02 → Level 2 0x03 → Level 3

Micro PDF 417

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xD9	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xD9	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Data Matrix

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xDA	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xDA	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Mirror Image

Set barcode output mirror image. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xDA	1 byte	
ExCMD	0x02	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output mirror image.

Command	Data Value	Data Size	Description
ExID	0xDA	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get mirror image. (host send)
	MI	1 byte	MI: Return mirror image. (scanner send) 0x0D → Disable 0x0E → Enable

Rectangular

Set barcode rectangular. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xDA	1 byte	
ExCMD	0x03	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode rectangular.

Command	Data Value	Data Size	Description
ExID	0xDA	1 byte	
ExCMD	0x03	1 byte	
Data	0xFF	1 byte	Get rectangular. (host send)
	R	1 byte	R: Return rectangular. (scanner send) 0x0D → Disable 0x0E → Enable

QR

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xDB	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xDB	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Mirror Image

Set barcode output mirror image. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xDB	1 byte	
ExCMD	0x02	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output mirror image.

Command	Data Value	Data Size	Description
ExID	0xDB	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get mirror image. (host send)
	MI	1 byte	MI: Return mirror image. (scanner send) 0x0D → Disable 0x0E → Enable

UTF8 Conversion

Set barcode UTF8 Conversion. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xDB	1 byte	
ExCMD	0x03	1 byte	
Data	0x01	1 byte	UTF8 conversion for word only
	0x02	1 byte	Universal UTF8 conversion

Get barcode UTF8 Conversion.

Command	Data Value	Data Size	Description
ExID	0xDB	1 byte	
ExCMD	0x03	1 byte	
Data	0xFF	1 byte	Get UTF8 Conversion. (host send)
	UC	1 byte	UC: Return UTF8 Conversion. (scanner send) 0x01 → UTF8 conversion for word only 0x02 → Universal UTF8 conversion

Micro QR

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xDC	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xDC	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Mirror Image

Set barcode output mirror image. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xDB	1 byte	
ExCMD	0x02	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output mirror image.

Command	Data Value	Data Size	Description
ExID	0xDB	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get mirror image. (host send)
	MI	1 byte	MI: Return mirror image. (scanner send) 0x0D → Disable 0x0E → Enable

UTF8 Conversion

Set barcode UTF8 Conversion. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xDB	1 byte	
ExcMD	0x03	1 byte	
Data	0x01	1 byte	UTF8 conversion for word only
	0x02	1 byte	Universal UTF8 conversion

Get barcode UTF8 Conversion.

Command	Data Value	Data Size	Description
ExID	0xDB	1 byte	
ExcMD	0x03	1 byte	
Data	0xFF	1 byte	Get UTF8 Conversion. (host send)
	UC	1 byte	UC: Return UTF8 Conversion. (scanner send) 0x01 → UTF8 conversion for word only 0x02 → Universal UTF8 conversion

Aztec

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xDD	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xDD	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Mirror Image

Set barcode output mirror image. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xDD	1 byte	
ExCMD	0x02	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output mirror image.

Command	Data Value	Data Size	Description
ExID	0xDD	1 byte	
ExCMD	0x02	1 byte	
Data	0xFF	1 byte	Get mirror image. (host send)
	MI	1 byte	MI: Return mirror image. (scanner send) 0x0D → Disable 0x0E → Enable

MaxiCode

Readable

Set barcode output readable. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	0xDE	1 byte	
ExCMD	0x01	1 byte	
Data	0x0D	1 byte	Disable
	0x0E	1 byte	Enable

Get barcode output readable.

Command	Data Value	Data Size	Description
ExID	0xDE	1 byte	
ExCMD	0x01	1 byte	
Data	0xFF	1 byte	Get readable. (host send)
	RD	1 byte	RD: Return readable. (scanner send) 0x0D → Disable 0x0E → Enable

Prefix / Suffix

Prefix

Set barcode output prefix. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	Symbology Features / Date Editing	1 byte	
ExCMD	0x12	1 byte	
Data	Character Table	4 bytes	

Get barcode output prefix.

Command	Data Value	Data Size	Description
ExID	[1.1.3.2]	1 byte	
ExCMD	0x10	1 byte	
Data	0xFF	1 byte	Get prefix. (host send)
	Character Table	4 bytes	RD: Return prefix 4 bytes. (scanner send)

Suffix

Set barcode output suffix. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	Symbology Features / Date Editing	1 byte	
ExCMD	0x13	1 byte	
Data	Character Table	4 bytes	

Get barcode output suffix.

Command	Data Value	Data Size	Description
ExID	Symbology Features / Date Editing	1 byte	
ExCMD	0x11	1 byte	
Data	0xFF	1 byte	Get suffix. (host send)
	Character Table	4 bytes	RD: Return suffix 4 bytes. (scanner send)

Character Table

a	0x61	A	0x41	0	0x30	Space	0x20	NULL	0x00
b	0x62	B	0x42	1	0x31	!	0x21	Insert	0x10
c	0x63	C	0x43	2	0x32	"	0x22	Delete	0x11
d	0x64	D	0x44	3	0x33	#	0x23	Home	0x12
e	0x65	E	0x45	4	0x34	\$	0x24	End	0x13
f	0x66	F	0x46	5	0x35	%	0x25	Up	0x14
g	0x67	G	0x47	6	0x36	&	0x26	Down	0x15
h	0x68	H	0x48	7	0x37	'	0x27	Left	0x16
i	0x69	I	0x49	8	0x38	(	0x28	Right	0x17
j	0x6A	J	0x4A	9	0x39	)	0x29	Tab	0x09
k	0x6B	K	0x4B	F1	0x80	*	0x2A	Back	0x08
l	0x6C	L	0x4C	F2	0x81	+	0x2B	Shift	0x1A
m	0x6D	M	0x4D	F3	0x82	,	0x2C	Escape	0x1B
n	0x6E	N	0x4E	F4	0x83	-	0x2D	PageUp	0x1C
o	0x6F	O	0x4F	F5	0x84	.	0x2E	PageDown	0x1D
p	0x70	P	0x50	F6	0x85	/	0x2F	Enter	0x0D
q	0x71	Q	0x51	F7	0x86	:	0x3A		
r	0x72	R	0x52	F8	0x87	;	0x3B		
s	0x73	S	0x53	F9	0x88	<	0x3C		
t	0x74	T	0x54	F10	0x89	=	0x3D		
u	0x75	U	0x55	F11	0x8A	>	0x3E		
v	0x76	V	0x56	F12	0x8B	?	0x3F		
w	0x77	W	0x57			@	0x40		
x	0x78	X	0x58						
y	0x79	Y	0x59						
z	0x7A	Z	0x5A						

Truncate / Return

Disable

Set barcode disable truncate / return. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	Symbology Features / Date Editing	1 byte	
ExCMD	0x21	1 byte	
Data	0x0D	1 byte	

Return Leftmost

Set barcode return leftmost. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	Symbology Features / Date Editing	1 byte	
ExCMD	0x22	1 byte	
Data	Number1	1 byte	Number1: 0x00~0x63

Truncate Leftmost

Set barcode truncate leftmost. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	Symbology Features / Date Editing	1 byte	
ExCMD	0x23	1 byte	
Data	Number1	1 byte	Number1: 0x00~0x63

Return Rightmost

Set barcode return rightmost. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	Symbology Features / Date Editing	1 byte	
ExCMD	0x24	1 byte	
Data	Number1	1 byte	Number1: 0x00~0x63

Truncate Rightmost

Set barcode truncate rightmost. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	Symbology Features / Date Editing	1 byte	
ExCMD	0x25	1 byte	
Data	Number1	1 byte	Number1: 0x00~0x63

Return Middle

Set barcode return middle. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	Symbology Features / Date Editing	1 byte	
ExCMD	0x26	1 byte	
Data	Number1 Number2	2 bytes	Number1: 0x00~0x63 Number2: 0x00~0x63

Truncate Middle

Set barcode truncate middle. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	Symbology Features / Date Editing	1 byte	
ExCMD	0x27	1 byte	
Data	Number1 Number2	2 bytes	Number1: 0x00~0x63 Number2: 0x00~0x63

Get Truncate / Return

Get barcode truncate / return.

Command	Data Value	Data Size	Description
ExID	Symbology Features / Date Editing	1 byte	
ExCMD	0x20	1 byte	
Data	0xFF	1 byte	Get truncate / return. (host send)
	TR Number1 Number2	3 bytes	Return truncate / return. (scanner send) Return Leftmost: TR = 0x01 Number1 = 0x00~0x63 Truncate Leftmost: TR = 0x02 Number1 = 0x00~0x63 Return Rightmost: TR = 0x03 Number1 = 0x00~0x63 Truncate Rightmost: TR = 0x04 Number1 = 0x00~0x63 Return Middle: TR = 0x05 Number1 = 0x00~0x63 Number1 = 0x00~0x63 Truncate Middle: TR = 0x06 Number1 = 0x00~0x63 Number1 = 0x00~0x63

Lengths Settings

One Discrete Length

Set barcode one discrete length. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	Support Barcode Type	1 byte	
ExCMD	0x31	1 byte	
Data	Number	1 byte	Number: 0x00~0x63

Two Discrete Length

Set barcode two discrete length. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	Support Barcode Type	1 byte	
ExCMD	0x32	1 byte	
Data	Number1 Number2	2 bytes	Number1: 0x00~0x63 Number2: 0x00~0x63

Length Within Range

Set barcode length within range. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	Support Barcode Type	1 byte	
ExCMD	0x33	1 byte	
Data	Number1 Number2	2 bytes	Number1: 0x00~0x63 Number2: 0x00~0x63

Any Lengths

Set barcode any lengths. Scanner return ACK.

Command	Data Value	Data Size	Description
ExID	Support Barcode Type	1 byte	
ExCMD	0x34	1 byte	
Data	0x00	1 byte	

Get Lengths Settings

Get barcode lengths settings / return.

Command	Data Value	Data Size	Description
ExID	Support Barcode Type	1 byte	
ExCMD	0x30	1 byte	
Data	0xFF	1 byte	Get lengths settings. (host send)
	Num1 Num2 MIN MAX	4 bytes	Return lengths settings. (scanner send) One Discrete Length: Num1 = 0x00~0x63 Num2 = 0x00 MIN = 0x00 MAX = 0x00 Two Discrete Length Num1 = 0x00~0x63 Num2 = 0x00~0x63 MIN = 0x00 MAX = 0x00 Length Within Range: Num1 = 0x00 Num2 = 0x00 MIN = 0x00~0x63 MAX = 0x00~0x63 Any Lengths: Num1 = 0x00 Num2 = 0x00 MIN = 0x00 MAX = 0x00

Support Barcode Type

Items	ExID	Description
1	0xB5	Code 128
2	0xB6	Code 39
3	0xB7	Code 93
4	0xB9	Code 11
5	0xBA	Codabar
6	0xBC	MSI
7	0xBD	Interleaved 2of 5
8	0xBF	Matrix 2 of 5