NEXA ZED-2600/2650 Programming Guide

About This User Guide

Please read all the content of the user guide carefully to use the products safely and effectively. You are advised of keeping it properly for your using reference.

Disclaimer

Please do not dismantle the product or tear up the seal on it, otherwise we won't provide warranty or replacement service.

The pictures in this user guide are for reference only. If there are any pictures which not match the actual product, please take actual products as the standard. Updated information is subject to change without notice.

Version Record

Version number	Version description	Version date
Barcode Scanner V2.13 Built Time: Dec 19 2019 11:29:59	Initial version	2019-12-19

CATALOG

1、Product Introduction

which identify 1D&2D barcodes by 2D image scanning pattern. The scanners above are of strong identification capability, and support automatic continuous scanning mode with fast and flexible scanning speed.

In this chapter, we will introduce the instruction of scanner with pictures, please compare to the scanner you bought when reading this user guide, which is good for your understanding. This chapter applies to regular users, maintenance personnel, and software developers.

1.1 **Main feature**

* Complete independent research and development, possessing the complete set of patent, plug and play without the need to install driver.

* Wide voltage design to avoid the data can't be transmitted due to voltage fluctuation.

* 32-bit master chip equipped with patented software, the scanner can smoothly decode reflective, wrinkled, blurred, and colorful barcode, and can also normally scan in light and dark environment.

* Adopt all tantalum capacitors and anti-oxidation optical technology, avoiding the problem of performance declining after long-term using.

1.2 **Unpack your device**

After you open the shipping carton containing the product, take the following steps:

- Take the accessories for scanner out from package.
- Check with the packing list to see if everything is complete and in good condition. If there are any damaged or missing components, please keep the original package and contact your supplier for after-sales service.

1.3 **Communication port**

The scanner must be connected to a host to operate. Host can be a PC, POS machine, intelligent terminal with USB or RS-232 interface.

USB	USB interface on host	
RS-232	RS-232 interface on host	

1.4 Start-up, shutdown, standby and restart

Start-up：Connect host computer with scanner, which will automatically start-up and in working state.

Shutdown：Remove the data cable which is connected with scanner; remove the USB which is connected with host computer; remove the power adapter which is inserted into RS-232 serial port.

Standby：Scanner with automatic sleep standby function, if 30 minutes without work it will be in standby mode, but it will automatically start-up when barcode approach.

Restart：If the scanner crashes or doesn't respond, please switch it off and restart.

1.5 Maintenance

* The window must be kept clean, the supplier do not bear the guarantee responsibility due to the improper maintenance.

* Avoid the window being wear and tear or scratched by hard object

* Use the hairbrush to remove the stain on the window

* Clean the window with a soft cloth, such as lens cleaning cloth

* Spraying liquid onto the window is prohibited.

* Prohibit any cleaning solvents, except for the cleaning water.

1.6 Reading skills

If the barcode is small, it should be closer to the scanning window; if the barcode is large, it should be far away from the scanning window a little more, thus easier to be read correctly.

If the barcode is highly reflective (for example, the coated surface), you may need to tilt the barcode at an angle to successfully scan it.

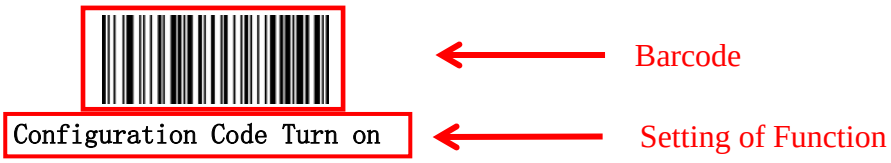
Barcode scanning example：

2、Barcode Menu

This model of laser desktop barcode scanner is designed to change settings by reading some special barcode, which we will give you a detailed introduction and show you all the barcodes for the corresponding setting in this section.

The greatest advantage of this setting method is direct, intelligible and user friendly.

2.1 Mark Setting



2.2 Setting barcodes

2.2.1 Turn on/Turn off configuration code

When the configuration code is turn on, All configuration codes available;

When the configuration code is turn off, you need setting it.

Configuration Code Turn on（Default）

Configuration Code Turn off

2.2.2 Restore Factory Defaults

Restore Factory Defaults

2.2.3 Read product batch version

Product Batch Version

2.2.4 Read user defaults

Save the current menu settings as user-defined menu settings.

Save User Defaults

You can restore the menu settings for the user-defined menu settings

Restore User Defaults

2.2.5 Interface Setting

This desktop scanner support USBKB、USB to serial port、serial port interface。

You can set USB PC KB、USB MAC KB interface by scanning below barcode。

USB KB（Default）

USB MAC KB

You can set serial port interface by scanning below barcode

Serial Port

You can set USB to serial port interface by scanning below barcode. (Need drive, please contact the sales)

2.2.6 Serial port setting

2.2.6.1 Baud rate setting

Baud Rate 4800

Baud Rate 9600（Default）

Baud Rate 38400

Baud Rate 19200

Baud Rate 57600

Baud Rate 115200

2.2.6.2 Serial port data bits, stop bits, check bit setting

7 data bits，1 stop bit，no check bit

7 data bits，1 stop bit，

even-parity check

7 data bits，1 stop bit，

odd-parity check

7 data bits，2 stop bits，no check bit

7 data bits，2 stop bits，

even-parity check

7 data bits，2 stop bits，

odd-parity check

8 data bits，1 stop bit，no check bit

（Default）

8 data bits，1 stop bit，even-parity

8 data bits，1 stop bit，odd-parity

8 data bits，2 stop bits，no check bit

8 data bits，2 stop bit，even-parity

check

8 data bits，2 stop bits，odd-parity

2.2.7 Start character Setting

Cancel Start Character

Add STX As Start Character

2.2.8 Ending character Setting

Cancel Ending Character

Add CR

Add LF

Add CRLF

Add Tab

Add ETX

2.2.9 User-defined prefix

Output

Enable User-Defined Prefix

Disable User-Defined Prefix（Default）

Edit

Clear All User-Defined Prefix

User-Defined Prefix

(After scan this code you can set the prefix you want based on the data and barcode in table ID)

2.2.10 User-defined suffix

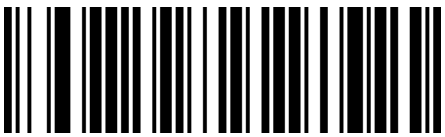
Output

Enable User-Defined Suffix

Disable User-Defined Suffix（Default）

Edit

Clear All User-Defined Suffix



User-Defined Suffix

(After scan this code you can set the suffix you want based on the data and barcode in table ID)

2.2.11 Scan mode

Scan mode

Normal Mode

2.2.12 Line feed setting（USB keyboard）

Only 0A(Line Feed)Works

Only 0D(Carriage Return)Works（Default）

Both 0A(LR) And 0D(CR) Works

2.2.13 Unicode Output Mode

English Output（Default）

Unicode Output (Notepad/Excel)

Unicode Output (Word)

2.2.15 Character escape

Enable Character Escape

Disable Character Escape（Default）

2.2.16 GS Control character replacement (Need enable control character escape)

No Replacement（Default）

Replace To |

Replace To ^]

Replace To]

Replace To <GS>

Replace To Ç

Note: To output the character “Ç”, you must scan “Virtual Keyboard On (Mode 1)” or (Mode 2) or (Mode 3) first.

2.2.17 CODE ID

Output Option

Disable CODE ID（Default）

Enable CODE ID Before The Barcode

Enable CODE ID After The Barcode

Edit

User-Defined CODE ID

（After scan this code you can set the prefix you want based on the data and barcode in table ID）

Clear All User-Defined CODE ID

2.2.19 Inverse code option

（Only 1D/DataMatrix/Aztec）

Only Decode Normal Code（Default）

Only Decode Inverse Code

Decode Both Normal Code And Inverse Code

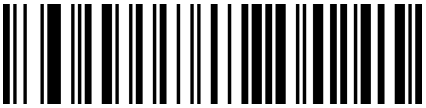
2.2.20 Virtual keyboard

Mode 1: The characters between 0x20 and 0xFF are output in the virtual keyboard mode that is not supported by the current keyboard layout. The characters between 0x00 and 0x1F are defined according to the control characters.

Mode 2: All characters between 0x20 and 0xFF are output under the virtual keyboard mode, and characters between 0x00 and 0x1F are defined according to the control characters.

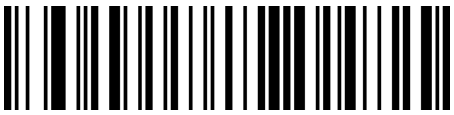
Mode 3: The characters used between 0x00 and 0xFF are output under the virtual keyboard mode.

Disable Virtual Keyboard（Default）



Enable Virtual Keyboard（Mode 1）

Enable Virtual Keyboard（Mode 2）



Enable Virtual Keyboard（Mode 3）

2.2.21 Option of host operating system under the virtual keyboard mode

WINDOWS（Default）

MAC OS

LINUX

2.3 Beeper and LED notifications

2.3.1 Beeper Volume setting

Volume Low

Volume High（Default）

2.3.2 Start-up beep

Shut Down Start-Up Beep

Open Start-Up Beep（Default）

2.3.3 Good read beep

Good Read Beep On

Good Read Beep Off（Default）

2.3.4 Beep pitch-good read

Low Pitch

Middle Pitch（Default）

High Pitch

2.3.5 Beep duration-good read

Tone Long（Default）

Tone Pip

2.3.6 Error sound

You will hear 4 continue alarm sounds when data upload failure, one single alarm

sound means scan indistinguishableness barcode.

Error Sound Low Pitch（Default）

Error Sound Middle Pitch

Error Sound High Pitch

2.3.7 Good-read LED

Good-Read LED Off

Good-Read LED On（Default）

2.4 Timeout between decodes (Same barcodes)

By default, the interval time between first scanning and second scanning for same barcode is 200ms.

To avoid being repeatedly with a barcode, you can set the scan interval.

300ms

500ms

750ms（Default）

1s

2s

2.5 USB keyboard setting

2.5.1 USB keyboard update speed setting

There barcode is used to set the update speed when scanner is in USB keyboard pattern. If the performance of your PC is lower, we suggest you choose slow update speed to make sure the scanner update the right data.

Slow Update Speed（Default）

Middle Update Speed

Fast Update Speed

User-Defined Update Speed（2ms~50ms）

2.5.2 USB keyboard text-transform

Normal Output（Default）

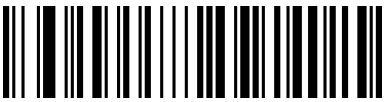
Case Reversal

All Caps

Lower Case

2.6 Keyboard layout setting

English (United States)



French (France)

Italian (Italy)

Italian 142 (Italy)

German (Germany)

Spanish (Spain)

Finnish

Japanese

Russian (MS)

Russian (Typewriter)

Arabic (101)

Irish

Polish (214)

Polish (Programmers)

Dutch (Netherlands)

Czech (QWERTZ)

Portuguese (Portugal)

Portuguese (Brazil)

Swedish (Sweden)

Turkish Q

Turkish F

Greek (MS)

2.7.1 Transmission setting

Original Bar Code Data

Transfer Only The Start Field

Transfer Only Intermediate Fields

Transfer Only End Fields

2.7.2 Field length setting

Set The Start Length

Set The End Length

Note: The field length is configured in bytes, using 10-digit data.

For example, set the start length to 10 bytes, scan the start length bar code, and then scan the appendix data and edit the 1,0 bar code, save, that is, complete the configuration.

2.7 Symbologies

2.8.1 Enable/disable all Symbologies

Enable all barcode might slow down scanner decode speed. We suggest enable the barcode you need based on your scene. Enable all barcode is default

Enable All Symbologies

Disable All Symbologies

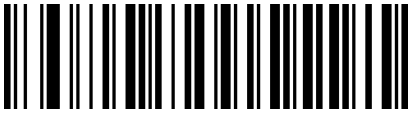
2.8.2 Enable/disable all 1D Symbologies

Enable All 1D Symbologies

Disable All 1D Symbologies

2.8.3 Enable/disable all 2D Symbologies

Enable All 2D Symbologies



Disable all 2D Symbologies

2.8.4 Codabar

Enable Codabar

Disable Codabar

2.8.5 Codabar start/ending character setting

Don’t Send Codabar Start/Ending Character（Default）

Send Codabar Start/Ending Character

2.8.6 Codabar Length Limitation

Codabar Min Length Limit（0~50 bits）

Codabar Max Length Limit（0~50 bits）

2.8.7 Code 11

Enable Code 11

Disable Code 11（Default）

2.8.8 Code 11 check bit output

Enable Code 11 Check Bit Output

Disable Code 11 Check Bit Output（Default）

2.8.9 Code 11 check bit option

Disable Code 11（Default）

Code 11 One Check Bit

Code 11 Two Check Bits

2.8.10 Code 11 length limitation

Codabar Min Length Limit（0~50 bits）

Codabar Max Length Limit（0~50 bits）

2.8.11 Code 39

Enable Code 39

Disable Code 39

2.8.12 Code 39 check bit

Disable Code 39 Check（Default）

Enable Code 39 Check Don’t Send Check Bit

Enable Code 39 Check Send Check Bit

2.8.13 Code 39 Full ASCII

Enable Full ASCII

Disable Full ASCII（Default）

2.8.14 Code 39 length limitation

Code 39　Min Length Limit（0~50bits）

Code 39　MaxLength Limit（0~50bits）

2.8.15 Code 32 （Code 39 needs to be enabled）

Enable Code 32

Disable Code 32

2.8.16 Interleaved 2 of 5 （ITF5）

Enable ITF25

Disable ITF25

2.8.17 Interleaved 2 of 5 （ITF5）check bit

Disable ITF25 Check（Default）

Enable ITF25 Check Don’t Send Check Bit

Enable ITF25 Check Send Check Bit

2.8.18 Interleaved 2 of 5 （ITF5）length setting

ITF25 No Fixed Length（4-24）（Default）

ITF25 Fixed Length of 6

ITF25 Fixed Length of 8

ITF25 Fixed Length of 10 Digits

ITF25 Fixed Length of 12 Digits

ITF25 Fixed Length of 14 Digits

ITF25 Fixed Length of 16 Digits

ITF25 Fixed Length of 18 Digits

ITF25 Fixed Length of 20 Digits

ITF25 Fixed Length of 22 Digits

ITF25 Fixed Length of 24 Digits

2.8.19 Interleaved 2 of 5 length limitation

Interleaved 2 of 5 Maximum length limit （0~50bits）

Interleaved 2 of 5 Min Length Limit （0~50bits）

2.8.20 Industrial 2 of 5（4-24 digits）

Enable Industrial 2 of 5

Disable Industrial 2 of 5

2.8.21 Industrial 2 of 5 length limitation

Industrial 2 of 5 Min Length Limit（0~50bits）

Industrial 2 of 5 Max Length Limit（0~50bits）

2.8.22 Matrix 2 of 5（4-24）

Enable Matrix 2 of 5

Disable Matrix 2 of 5

2.8.23 Matrix 2 of 5 length limitation

Matrix 2 of 5 Min Length Limit（0~50bits）

Matrix 2 of 5 Max Length Limit（0~50bits）

2.8.24 Code 93

Enable Code 93

Disable Code 93

2.8.25 Code 93 length limitation

Code 93 Min Length Limit（0~50bits）

Code 93 Max Length Limit（0~50bits）

2.8.26 Code 128

Enable Code 128

Disable Code 128

2.8.27 GS1-128

Enable GS1-128

Disable GS1-128

2.8.28 Code 128 length limitation

Code 128 Min Length Llimit（0~50bits）

Code 128 Max Length Limit（0~50bits）

2.8.29 UPC-A

Enable UPC-A

Disable UPC-A

2.8.30 UPC-A check bit

Send UPC-A Check Bit（Default）

Don’t Send UPC-A Check Bit

2.8.31 UPC-A to EAN-13

Enable UPC-A To EAN-13

Disable UPC-A To EAN-13（Default）

2.8.32 UPC-E

Enable UPC-E

Disable UPC-E

2.8.33 UPC-E check bit

Send UPC-E Check Bit（Default）

Don’t Send UPC-E Check Bit

2.8.34 UPC-E to UPC-A

Enable UPC-E To UPC-A

Disable UPC-E To UPC-A（Default）

2.8.35 EAN/JAN-8

Enable EAN/JAN-8

Disable EAN/JAN-8

2.8.36 EAN/JAN-13

Enable EAN/JAN-13

Disable EAN/JAN-13

2.8.37 UPC/EAN/JAN extra bit

Ignore UPC/EAN/JAN Extra Bit（Default)

Decode UPC/EAN/JAN Extra Bit

Auto adapt UPC/EAN/JAN Extra Bit

2.8.38 EAN13 turn ISBN

Enable EAN13 Turn ISBN

Disable EAN13 Turn ISBN（Default）

2.8.39 EAN13 Turn ISSN

Enable EAN13 Turn ISSN

Disable EAN13 Turn ISSN（Default）

2.8.40 GS1 DataBar（RSS14）

Enable GS1 DataBar

Disable GS1 DataBar

2.8.41 GS1 DataBar Limited

Enable GS1 DataBar Limited

Disable GS1 DataBar Limited

2.8.42 GS1 DataBar Expanded

Enable GS1 DataBar Expanded

Disable GS1 DataBar Expanded

2.8.43 PDF417

Enable PDF417

Disable PDF417

2.8.44 Micro PDF417

Enable Micro PDF417

Disable Micro PDF417

2.8.45 QR Code

Enable QR

Disable QR

2.8.46 Micro QR

Enable Micro QR

Disable Micro QR

2.8.47 Data Matrix

Enable Data Matrix

Disable Data Matrix

2.8.48 Aztec Code

Enable Aztec

Disable Aztec

APPENDIX

Appendix 1 Data and editing code

0

1

2

3

4

5

6

7

8

9

A

B

C

D

E

F

Save

Cancel The Data Read Last Time

Cancel All Data Read Before

Cancel Current Setting

Appendix 2 Code type ID table

Code type	HEX	CODE ID(default)
All codes	99	
Codabar	61	a
Code128	6A	j
Code32	3C	<
Code93	69	i
Code39	62	b
Code11	68	h
EAN		
EAN-13	64	d
EAN-8	44	D
GS1		
GS1 DataBar	79	y

GS1 DataBar Limited	7B	{
GS1 DataBar Expanded	7D	}
GS1-128 (EAN-128)	49	I
2 of 5		
Interleaved 2 of 5	65	e
Matrix 2 of 5	6D	m
Industry 2 of 5	66	f
UPC		
UPC-A	63	c
UPC-E	45	E
Aztec Code	7A	z
DataMatrix	77	w
PDF417	72	r
Micro PDF417	52	R
QR Code	73	s
Micro QR Code	73	s

Appendix 3 Eyeball character ASCII table

Decimal	Hexadecimal	Character	Decimal	Hexadecimal	Character	Decimal	Hexadecimal	Character
32	20	<SPACE>	64	40	@	96	60	`
33	21	!	65	41	A	97	61	a
34	22	“	66	42	B	98	62	b
35	23	#	67	43	C	99	63	c
36	24	$	68	44	D	100	64	d
37	25	%	69	45	E	101	65	e
38	26	&	70	46	F	102	66	f
39	27	‘	71	47	G	103	67	g
40	28	(	72	48	H	104	68	h
41	29	)	73	49	I	105	69	i
42	2A	*	74	4A	J	106	6A	j

43	2B	+	75	4B	K	107	6B	k
44	2C	,	76	4C	L	108	6C	l
45	2D	-	77	4D	M	109	6D	m
46	2E	.	78	4E	N	110	6E	n
47	2F	/	79	4F	O	111	6F	o
48	30	0	80	50	P	112	70	p
49	31	1	81	51	Q	113	71	q
50	32	2	82	52	R	114	72	r
51	33	3	83	53	S	115	73	s
52	34	4	84	54	T	116	74	s
53	35	5	85	55	U	117	75	u
54	36	6	86	56	V	118	76	v
55	37	7	87	57	W	119	77	w
56	38	8	88	58	X	120	78	x
57	39	9	89	59	Y	121	79	y
58	3A	:	90	5A	Z	122	7A	z
59	3B	;	91	5B	[	123	7B	{
60	3C	<	92	5C	\	124	7C	|
61	3D	=	93	5D	]	125	7D	}
62	3E	>	94	5E	^	126	7E	~
63	3F	?	95	5F	_			

Appendix 4 Operational character（USB keyboard）

Decimal	*Hexadecimal*	*Corresponding key value（disable CODE ID）*	*Corresponding key value（enable CODE ID）*
0	00	retain	Ctrl+@
1	01	Insert	Ctrl+A
2	02	Home	Ctrl+B
3	03	End	Ctrl+C
4	04	Delete	Ctrl+D
5	05	PageUp	Ctrl+E
6	06	PageDown	Ctrl+F
7	07	ESC	Ctrl+G
8	08	Backspace	Backspace

9	09	Tab	Tab
10	0A	Enter （The configuration of CRLF processing decide how it express ）	Ctrl+J
11	0B	Caps Lock	Ctrl+K
12	0C	Print Screen	Ctrl+L
13	0D	Enter （ The configuration of CRLF processing decide how it express ）	Enter
14	0E	Scroll Lock	Ctrl+N
15	0F	Pause/Break	Ctrl+O
16	10	F11	Ctrl+P
17	11	Direction key ↑	Ctrl+Q
18	12	Direction key ↓	Ctrl+R
19	13	Direction key ←	Ctrl+S
20	14	Direction key →	Ctrl+T
21	15	F12	Ctrl+U
22	16	F1	Ctrl+V
23	17	F2	Ctrl+W
24	18	F3	Ctrl+X
25	19	F4	Ctrl+Y
26	1A	F5	Ctrl+Z
27	1B	F6	ESC
28	1C	F7	Ctrl+\
29	1D	F8	Ctrl+]
30	1E	F9	Ctrl+^
31	1F	F10	Ctrl+_

Appendix 5 Operational character（serial port and USB-VCOM）

Decimal	Hexadecimal	Character
0	00	NUL
1	01	SOH
2	02	STX
3	03	ETX
4	04	EOT
5	05	ENQ
6	06	ACK
7	07	BEL
8	08	BS

9	09	HT
10	0A	LF
11	0B	VT
12	0C	FF
13	0D	CR
14	0E	SO
15	0F	SI
16	10	DLE
17	11	DC1
18	12	DC2
19	13	DC3
20	14	DC4
21	15	NAK
22	16	SYN
23	17	ETB
24	18	CAN
25	19	EM
26	1A	SUB
27	1B	ESC
28	1C	FS
29	1D	GS
30	1E	RS
31	1F	US

Configuration instruction and example

Example for user-defined prefix and suffix:

You can edit 10 characters as prefix or suffix. (In order to make sure the prefix and suffix can output normally, please enable user-defined prefix or suffix first)

Example 1.1： Add XYZ to all type of barcode as prefix.

Look up appendix 2, you can find that the HEX value for all codes is “99”. Look up appendix 3, the HEX value for XYZ is “58,59,5A”. First scan “user-defined prefix” in 2.2.11 edit, then the scanner will have two sounds like “D…D…”, then scan 9，9，5，8，5，9，5，A，and save, the setting accomplished.

If you want to change the prefix or suffix you set before you save the setting, you can scan “cancel the data read last time” or “Cancel all data read before” to reset. If you want to give up setting scan “Cancel current setting”.

Example 1.2： Add Q to QR code as prefix.

Look up appendix 2, you can find that the HEX value for QR code is “73”. Look up appendix 3, the HEX value for Q is “51”. First scan “user-defined prefix” in 2.2.11 edit, then the scanner will have two sounds like “D…D…”, then scan 7，3，5，1，and save, the setting accomplished.

Example 1.3： Cancel user-defined prefix in QR code

When you edit user-defined prefix and suffix, it will cancel the prefix and suffix you set if you scan “user-defined prefix” or “user-defined suffix” and add no character and save.

For example, cancel user-defined prefix in QR code, first scan “user-defined prefix”, then scan 7,3, and save. The prefix in QR code has been canceled.

Note: If there is a prefix for all type of barcode, after you done the operation above, the QR code will have the prefix you set for all type barcode.

If you need to cancel all prefix or suffix for all type of barcode, please scan “clear all user-defined prefix” and “clear all user-defined suffix”

USB update speed setting example

If the PC is weak properties, it is easy to have error of transmission and you need to set USB keyboard update speed to low speed, like 50ms (user-defined speed)

First, scan “User-defined update speed” then scan 5,0 in appendix 1 and save