



SC455

Wireless Handheld Barcode Scanner
2D USB with Base

Programming Manual



Wireless



2D



V1.0

www.3nstar.com



Model No.: SC455

Contents

ABOUT THIS MANUAL.....ERROR! BOOKMARK NOT DEFINED.

CHAPTER 1 GETTING START ERROR! BOOKMARK NOT DEFINED.

1.1 RECEIVER.....	5
1.2 CONNECT RECEIVER.....	5
1.3 INSTALL CABLE	5
1.3 SCANNER PAIRING	6

CHAPTER 2 SCANNING..... ERROR! BOOKMARK NOT DEFINED.

2.1 INTRODUCTION	7
2.2 HANDHELD SCAN MODE.....	8
2.3 AIM.....	8
2.4 DEPTH OF FILED	9

CHAPTER 3 COMMON FUNSTION SETTING .. ERROR! BOOKMARK NOT DEFINED.

3.1 SCAN MODE	10
3.2 IMAGE REVERE.....	11
3.3 ILLUMINATION	11
3.4 BARCODE SCANNING DELAY	11

CHAPTER 4 BARCODE TYPE DEFINITION .. ERROR! BOOKMARK NOT DEFINED.

4.1 COMMON SETTING.....	12
4.2 1D BARCODE	12
4.2.1 Codabar	12
4.2.2 Code 39	14
4.2.3 Code 128	16
4.2.4 Code 11.....	16
4.2.5 Code 93	17

4.2.6 Interleaved 2 of 5	18
4.2.7 Straight 2 of 5 Industrial.....	19
4.2.8 Matrix 2 of 5.....	20
4.2.9 UPC-A.....	20
4.2.10 UPC-E	23
4.2.11 EAN-8	25
4.2.12 EAN-13	27
4.2.13 MSI.....	29
4.3 2DBARCODE	31
4.3.1 PDF417.....	31
4.3.2 Micro PDF417	31
4.3.3 QR Code.....	32
4.3.4 Data Matrix.....	32
4.3.5 Maxicode.....	33
4.3.6 Aztec.....	34
4.3.7 Chinese sensible code	34
APPENDIX: DIGITAL BARCODE.....	35
APPENDIX 3: RESTORE DEFAULT SETTING	ERROR! BOOKMARK NOT DEFINED.

CHAPTER 5 WIRELESS CONFIGURATION **ERROR! BOOKMARK NOT DEFINED.**

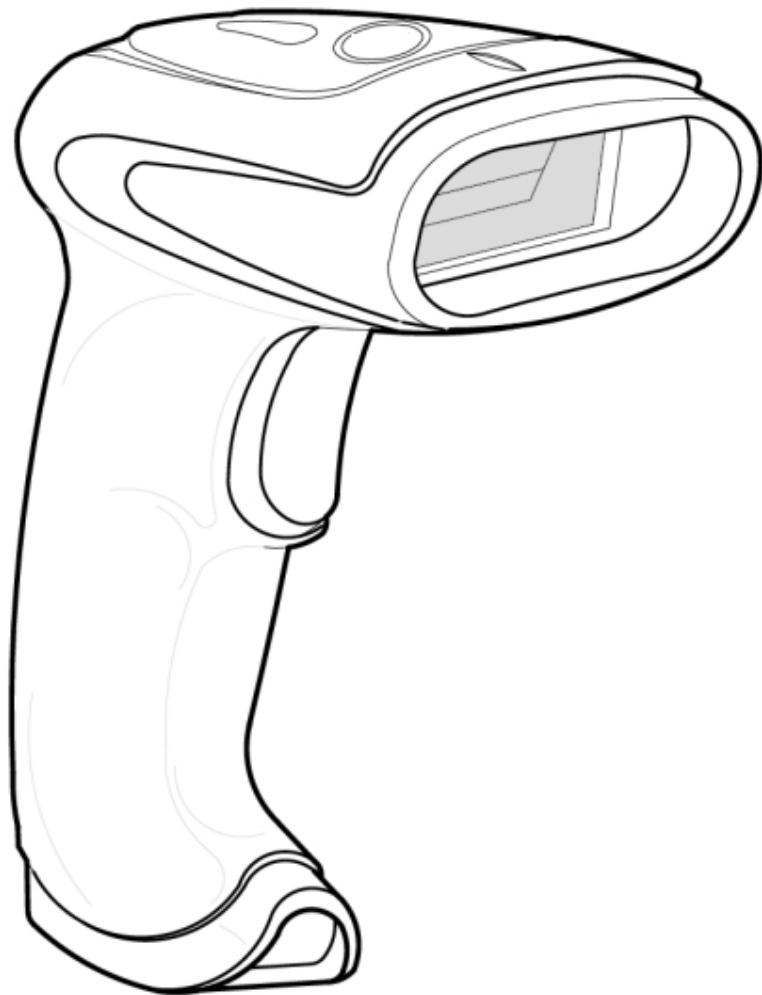
5.1 TRANSMITTING TERMINAL.....	39
5.1.1 Enter setting and Save&exit	39
5.1.2 Start pairing	39
5.1.3 Interface setting	40
5.1.4 Wire output turn on	40
5.1.4 HID keyboard language	40
5.1.5 Check parameter	41
5.1.10 Operation mode.....	41
5.1.11 Inventory mode operation setting	42
5.1.12 Sleep time setting.....	42
5.1.13 Initialization.....	42
5.2.1 SET PREFIX	43
5.2.2 SET SUFFIX	43
5.2.3 Notify sound system	44
5.2.4 Instruction system.....	44

APPENDIX..... **ERROR! BOOKMARK NOT DEFINED.**

APPENDIX1: BARCODE LIST	46
APPENDIX 2: ASCII BARCODE LIST	55

About this manual

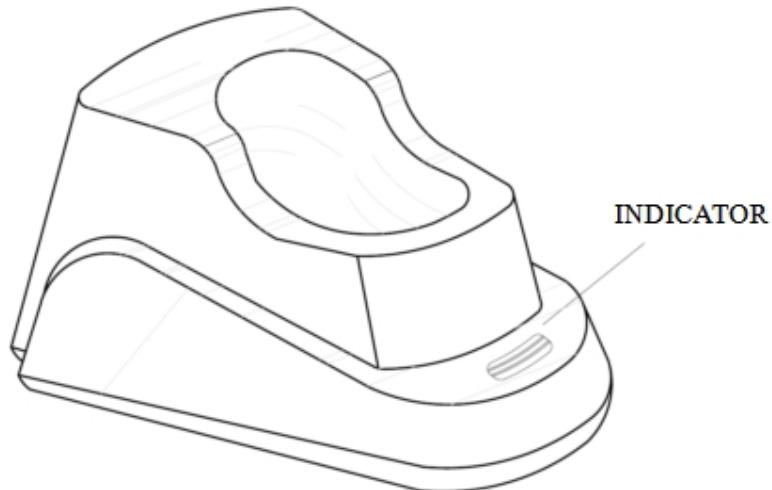
This manual is designed to provide you the common setting, operation and maintenance instructions of SC455 handheld 1D scanner, to help you to use this product easily.



SC455

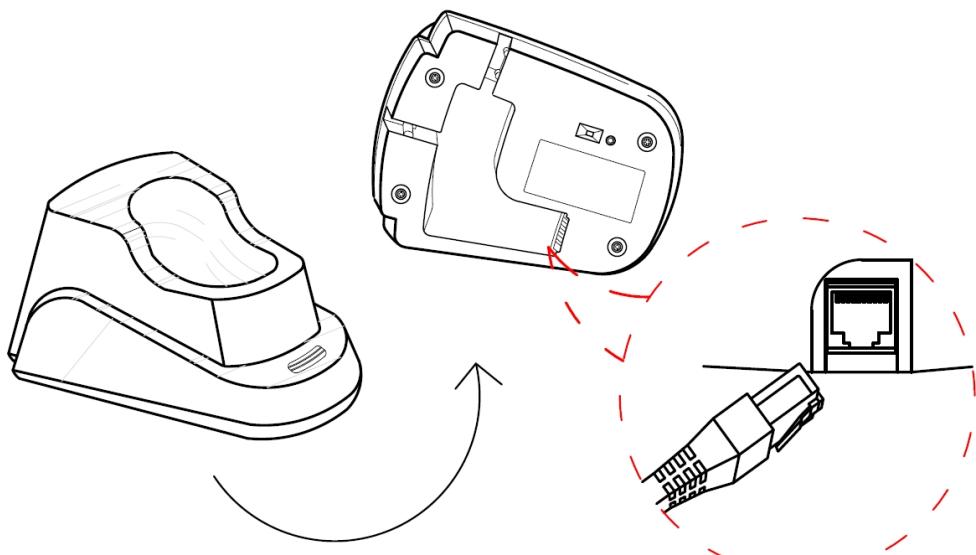
Chapter 1 Getting Start

1.1 Receiver



Picture 1.1 Receiver

1.2 Connect receiver



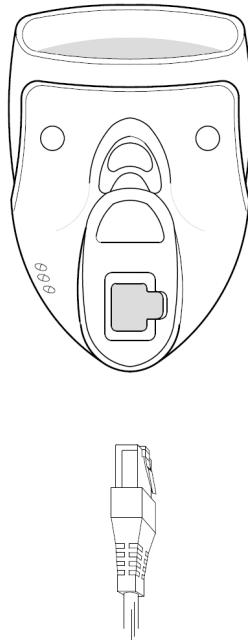
Picture 1.2 Connect receiver

1.3 Install cable

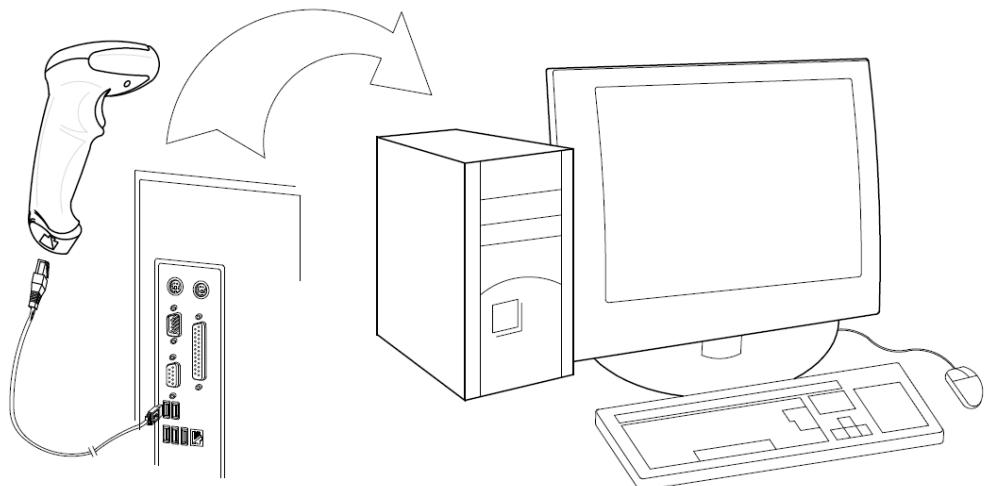
- 1.1. Insert the crestal end of the cable to the interface of the scanner
2. Gently pull on the cable to ensure that cable connections are secure

3. Connect the other end of the cable to PC.

Notice: Wireless scanner cable can be used for charging or transmission data



Picture1.3 Insert cable



Picture 1.4 Connect the PC(For charging)

1.3 Scanner pairing

1. Connection cradle to terminal

2. Scanning the "Start Pairing" barcode within 20 seconds, when the receiver green light flashing and scanner red light flashing, means it is pairing situation.



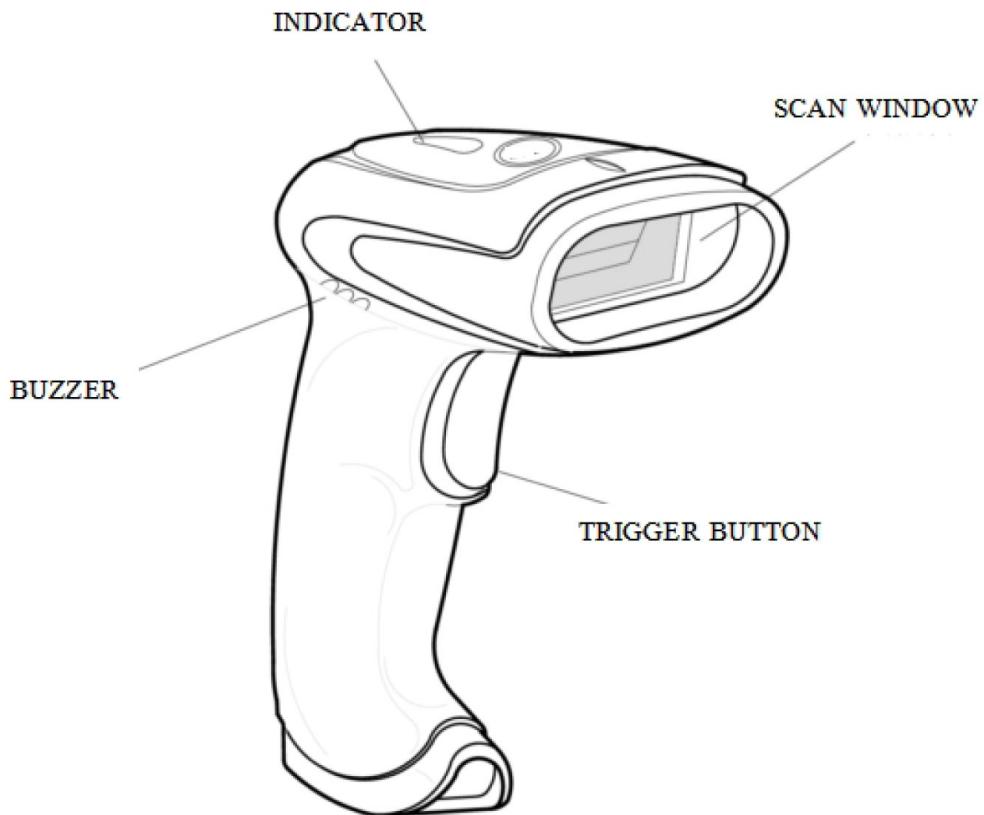
3.If connect successfully, there will have three warning sound and scanner flashing light turn red to green.

4.Finish pairing

Chapter 2 scanning

2.1 Introduction

This chapter has covered the introduction of scanner appearance, the scanning method and scope, as well as two different operation ways.



2.2 Handheld scan mode



Picture 2.1 Scan method

1. Make sure all connection is correct
2. Aim at the barcode, press the button
3. Barcode should be in range of LED light decoding area

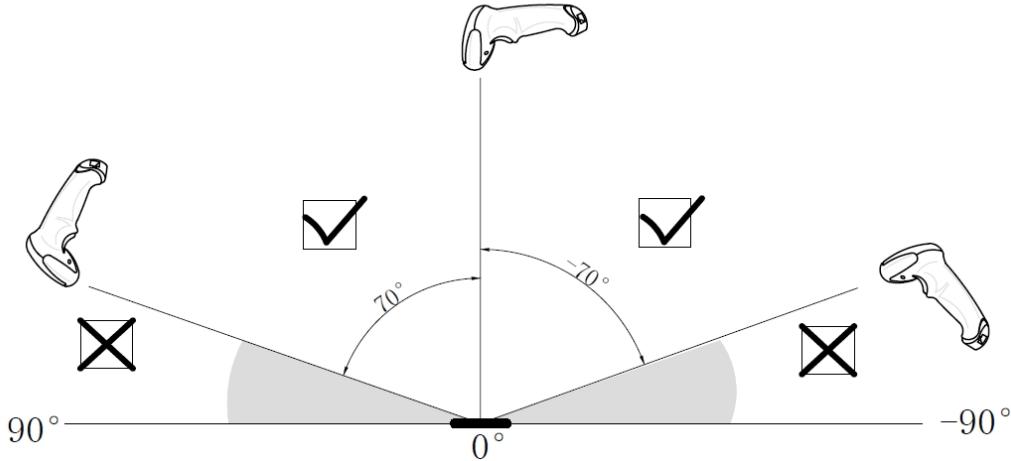


2.3 AIM

The red LED light bar is the window center of scanning area, please make sure

the barcode is in this area.

The below picture show the decode region and the blind region



Picture2.2 Scan region

2.4 Dept of field

1. Dept of field

Picture 2.3 Dept of field

Barcode	Resolution	Nearest	Fastest
Code39	5.0 mil	60mm	130mm
100% UPCA	13.0mil	30mm	300mm
Code 39	20.0mil	35mm	350mm
PDF 417	6.8mil	40mm	150mm
Data Matrix	10.0mil	50mm	130mm
QR Code	20.0mil	25mm	250mm

Test condition:

Filter chosen: Standard mode

Barcode sample: photoelectricity test sample

wide and narrow ratio: 2.5:1

Angle: $\alpha = 0^\circ \beta = 15^\circ \gamma = 0^\circ$

Curvature: $R = \infty$

Resolution	Barcode	Contras t	Blank area	Bit
0.5mm	Code 39	0.9	18mm	3
0.25mm	Code 39	0.9	10mm	8
0.15mm	Code 39	0.9	7mm	10

0.127mm	Code 39	0.9	5mm	4
0.08mm	Code 39	0.9	5mm	4

Chapter 3 Common function setting

Restore default setting

After scanned Restore default setting, scanner parameter will return to be factory stat. 扫

Notice: After Restore default setting, need to scan barcode “9600”, or it will come across Data disorder phenomenon



Restore default setting,



9600

3.1 Scan mode

Manual trigger mode: It can trigger the scanning by pressing the button or serial command to start this function. Under this mode, press the button until the decode successful or release the button; Under the serial command trigger mode, the scanning will till the decode successful or the scanner receive the stop scanning command.



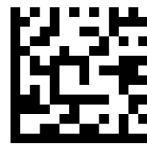
*Manual trigger mode

Contious scan mode: **Scanner will continuously scan under this model.**



Contious scan mode

Mobile phone mode 1: Choose this mode when the mobile phone background light is weak or the reflection is strong.



Mobile phone mode 1

Mobile phone mode 2: Choose this mode when the mobile phone background light is strong and the reflection is strong.



Mobile phone mode 2

3.2 Image reverse



*Open reverse

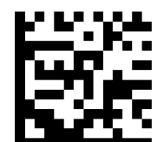


*Close reverse

3.3 Illumination



*Open Illumination



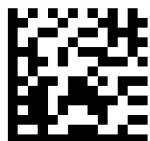
*Close Illumination

3.4 Barcode scanning delay

Under that function, scanner will delay to scan next barcode after successfully scanned previous barcode.



No delay



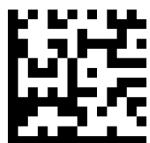
Delay 500 Milliseconds



Delay 2000 Milliseconds

Chapter 4 Barcode Type Definition

4.1 Common setting



Turn on all barcode



Turn off all barcode

4.2 1D barcode

4.2.1 Codabar



Restore Codabar default setting



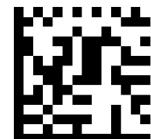
*Turn on Codabar



Turn off Codabar

Transmission Start/End symbol

If Codabar barcode includes start and end symbol, scan below barcode, so that the start and end character will be transfer when the data transmission.



Transmission start/end symbol



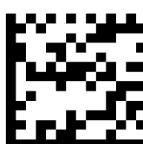
*Not transfer start/end symbol

Codabar Detection symbol

To add the Detection symbol in Codabar is able to detect the legitimacy of the barcode by verifying.



NO Detection symbol



Detect but not transfer detect symbol



Detect and

transfer detect symbol

Effective length configuration

Codabar barcode length is able to set Max, and Min, the data is valid to between Max and Min, and the data which over the Max or less than the Min is invalid. Use the Programming Command to finsh the setting.

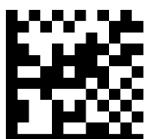
For example: The valid barcode length of Codabar is Min10 and Max 25.

Programming Command as below:

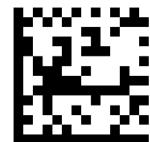
Max: 02020625

Min: 02020510

4.2.2 Code 39



Default setting



*Turn on Code 39



*Turn off Code 39

Start/End symbol

If Code 39 barcode includes the start and end symbol, scan below barcode, so that you can choose if the start and end characters transfer at the same time.



*Transmission start/end symbol

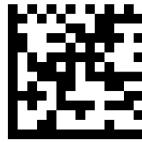


*Not transmission start/end symbol

Detection symbol

Adding the detection symbol in Code 39 is able to detect the legitimacy of the barcode by verifying.

Add detective symbol in Code 39 to test the barcode validity.



*No detective symbol



Verify but not transfer detect symbol



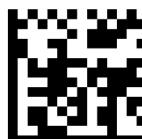
Verify and transfer detect symbol

Code 39 additional data

It can add additional data behind Code 39 after turn it on.



Turn on addition



Turn off addition

Code 39 Full ASCII



*Turn on Code 39 Full ASCII



*Turn off Code 39 Full ASCII

Effective length configuration

Code 39 barcode length is able to set to Max, and Min, the data is valid between Max andMin, and the data which over the Max or less then the Min is invalid. Use the Programming Command to finsh the setting.

For example: The valid barcode length of Code39 is Min10 and Max 25.

Programming Command as below:

Max: 02030825

Min: 02030710

4.2.3 Code 128



Restore Code 128 default setting



*Turn on Code 128



Turn off Code 128

Effective length configuration

Code 128 barcode length is able to set to Max, and Min, the data is valid between Max andMin, and the data which over the Max or less then the Min is invalid. Use the Programming Command to finsh the setting.

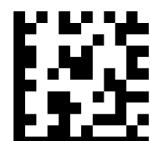
For example: The valid barcode length of Code128 is Min10 and Max 25.

Programming Command as below:

Max: 020A0325

Min: 020A0210

4.2.4 Code 11



Default setting

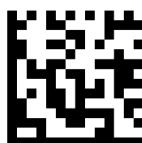


*Turn Code 11



Turn off Code 11

Detective character



*1detective character



2 detective characters

Effective length configuration

Code 11 barcode length is able to set to Max, and Min, the data is valid between Max andMin, and the data which over the Max or less then the Min is invalid. Use the Programming Command to finsh the setting.

For example: The valid barcode length of Code11 is Min10 and Max 25.

Programming Command as below:

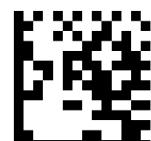
Max: 02090325

Min: 02090210

4.2.5 Code 93



Default setting



*Turn on Code 93



Turn off Code 93

Effective length configuration

Code 93barcode length is able to set to Max, and Min, the data is valid between Max andMin, and the data which over the Max or less then the Min is invalid. Use the Programming Command to finsh the setting.

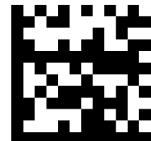
For example: The valid barcode length of Code 93 is Min10 and Max 25.

Programming Command as below:

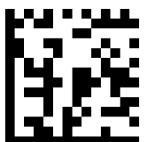
Max: 020D0325

Min: 020D0210

4.2.6 Interleaved 2 of 5



Default setting



*Turn on Interleaved 2 of 5



Turn off Interleaved 2 of 5

Detect symbol

To add the detection symbol in Interleaved 2 of 5 is able to detect the legitimacy of the barcode by verifying.



*No detect symbol



Verify but not transfer detect symbol



Verify and transfer detect symbol

Effective length configuration

Interleaved 2 of 5 barcode length is able to set to Max, and Min, the data is valid between Max andMin, and the data which over the Max or less then the Min is invalid. Use the Programming Command to finsh the setting.

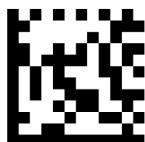
For example: The valid barcode length of Interleaved 2 of 5 is Min10 and Max 25.

Programming Command as below:

Max: 02040425

Min: 02040310

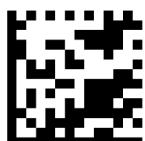
4.2.7 Straight 2 of 5 Industrial



Default setting



*Turn on Straight 2 of 5 Industrial



Turn off Straight 2 of 5 Industrial

Effective length configuration

Straight 2 of 5 Industrial barcode length is able to set to Max, and Min, the data is valid between Max and Min, and the data which over the Max or less than the Min is invalid. Use the Programming Command to finish the setting.

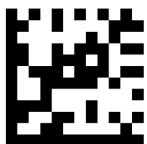
For example: The valid barcode length of Interleaved 2 of 5 is Min10 and Max 25.

Programming Command as below:

Max: 02060325

Min: 02060210

4.2.8 Matrix 2 of 5



Default setting



Turn on Matrix 2 of 5



*Turn off Matrix 2 of 5

Effective length configuration

Matrix 2 of 5 barcode length is able to set to Max, and Min, the data is valid between Max and Min, and the data which over the Max or less than the Min is invalid. Use the Programming Command to finish the setting.

For example: The valid barcode length of Matrix 2 of 5 is Min10 and Max 25.

Programming Command as below:

Max: 02080310

Min: 0208025

4.2.9 UPC-A



Restore UPC-A default setting



*Turn on UPC-A



Turn off UPC-A

Parity bit



*With Parity bit



Without parity bit

Digital system

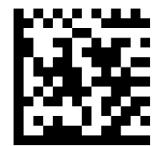


Turn on digital system



*Turn off digital system

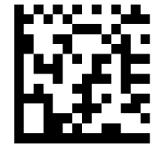
Additional code



Turn on 2 bits additional



*Turn off 2 bits additional



Turn on 5 bits additional



*Turn off 5 bits additional

UPC-A Required

Turn on the function of UPC-A Required, the scanner can only read the barcode with suffix.



Turn on UPC-A Required



*Turn off UPC-A Required

UPC-A Addenda Separator



Turn on



Turn off

4.2.10 UPC-E



Default setting



Turn on UPC-E0



Turn off UPC-E0



Turn on UPC- E1



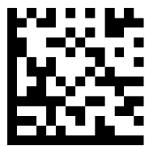
Turn off UPC- E1

UPC-E0Extension

UPC-E0 can be extended to be 12 bytes UPC-A



Turn on UPC-E0 extension



Turn off UPC-E0 extension

UPC-E0 parity bit



Turn on UPC-E0 parity bit



Turn off UPC-E0 parity bit

UPC-E0 Addenda Required



Turn on UPC-E0 Addenda Required



Turn off UPC-E0 Addenda Required

UPC-E0 Addenda Separator

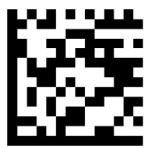


Turn on UPC-E0 Addenda Separator



Turn off UPC-E0 Addenda Separator

UPC-E0 digital system



Turn on



Turn off

UPC-E0 Additional code



Turn on 2 bits additional



Turn off 2 bits additional

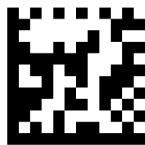


Turn on 5 bits additional



Turn off 2 bits additional

4.2.11 EAN-8



Restore EAN-8 default setting



*Turn on EAN-8



Turn off EAN-8

Transfer the parity bit

The length of EAN-8 is 8 bits, the last bit is parity bit, it is to verify the accuracy of the data.



*Turn on transmission



Turn off transmission

Add additional code

Each EAN-8 code is able to add 2 bits or 5 bits additional code, in the sample of below, the part in blue dotted line is EAN-8 code, and which in red dotted line is additional code.



Turn on 2 bits additional code



*Turn off 2 bits additional code



Turn on 5 bits additional code



*Turn off 5 bits additional code

Need to add additional code or not



Need to add EAN-8 additional code



*Not need to add EAN-8 additional code

EAN/JAN-8 additional space

Turn on this function, there will be a space between the data and the additional data, if disable this function, there will be no space.

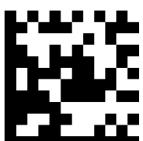


Turn on additional space



Turn off additional space

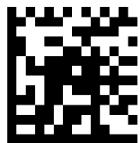
4.2.12 EAN-13



Restore EAN-13 Default setting



*Turn on EAN-13



Turn off EAN-13

Transfer parity bit



*Transfer EAN-13 detect bit



Not transfer EAN-13 detect bit

Additional code



Turn on 2 bits additional code



*Turn off 2 bits additional code



Turn on 5 bits additional code



*Turn off 2 bits additional code

Need to add additional code or not



Need to add EAN-13 additional code



*Not need to add EAN-13 additional code

4.2.13 MSI



*Turn on MSI



Default setting



Turn off MSI

Effective length configuration

MSI barcode length is able to set to Max, and Min, the data is valid between Max andMin, and the data which over the Max or less then the Min is invalid. Use the Programming Command to finsh the setting.

For example: The valid barcode length of MSI is Min5 and Max 10.

Programming Command as below:

Max: 020E0410

Min: 020E035

MSI parity code



ValidateType10Transmit



ValidateType10ThenType11CharTransmit



ValidateType10ThenType11CharNoTransmit



ValidateType10NoTransmit



Validate2Type10NoTransmit



Validate2Type10CharTransmit



Validate2Type10CharNoTransmit



DisableMSICheck

4.3 2Dbarcode

4.3.1 PDF417



Default setting



*Turn on PDF417



Turn off PDF417

PDF417 barcode length is able to set to Max, and Min, the data is valid between Max andMin, and the data which over the Max or less then the Min is invalid. Use the Programming Command to finsh the setting.

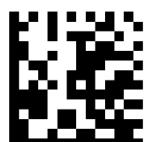
For example: The valid barcode length of PDF417 is Min5 and Max 10.

Programming Command as below:

Max: 021F0610

Min: 021F055

4.3.2 Micro PDF417



Turn on Micro PDF417



Turn off Micro PDF417

Micro PDF417 barcode length is able to set to Max, and Min, the data is valid between Max andMin, and the data which over the Max or less then the Min is invalid. Use the Programming Command to finsh the setting.

For example: The valid barcode length of Micro PDF417 is Min5 and Max 10.

Programming Command as below:

Max: 02200310

Min: 0220025

4.3.3 QR Code



Default setting



*Turn on QR Code



Turn off QR Code

Effective length configuration

QR Code barcode length is able to set to Max, and Min, the data is valid between Max andMin, and the data which over the Max or less then the Min is invalid. Use the Programming Command to finsh the setting.

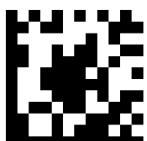
For example: The valid barcode length of QR Code is Min5 and Max 10.

Programming Command as below:

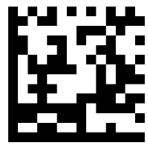
Max: 02370310

Min: 0237025

4.3.4 Data Matrix



Default setting



*Turn on Data Matrix



Turn off Data Matrix

Effective length configuration

Data Matrix barcode length is able to set to Max, and Min, the data is valid between Max and Min, and the data which over the Max or less than the Min is invalid. Use the Programming Command to finish the setting.

For example: The valid barcode length of Data Matrix is Min5 and Max 10.

Programming Command as below:

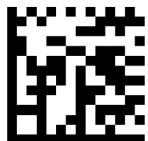
Max: 02360310

Min: 0236025

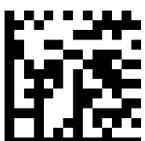
4.3.5 Maxicode



Default setting



Turn on Maxicode



Turn off Maxicode

Effective length configuration

Maxicode barcode length is able to set to Max, and Min, the data is valid between Max and Min, and the data which over the Max or less than the Min is invalid. Use the Programming Command to finish the setting.

For example: The valid barcode length of Maxicode is Min5 and Max 10.

Programming Command as below:

Max: 02360310

Min: 0236025

4.3.6 Aztec



Default setting



Turn on Aztec



Turn off Aztec

Effective length configuration

Aztec barcode length is able to set to Max, and Min, the data is valid between Max and Min, and the data which over the Max or less than the Min is invalid. Use the Programming Command to finish the setting.

For example: The valid barcode length of Aztec is Min5 and Max 10.

Programming Command as below:

Max: 02330610

Min: 0233055

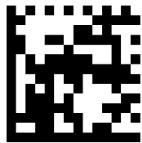
4.3.7 Chinese sensible code



Default setting



Turn on Chinese sensible code



Turn off Chinese sensible code

Effective length configuration

Chinese sensible barcode length is able to set to Max, and Min, the data is valid between Max and Min, and the data which over the Max or less than the Min is invalid. Use the Programming Command to finish the setting.

For example: The valid barcode length of Chinese sensible code is Min5 and Max 10. Programming Command as below:

Max: 02380310

Min: 0238025

Appendix 2: Digital barcode



0



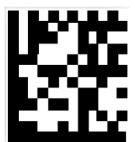
1



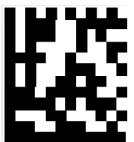
2



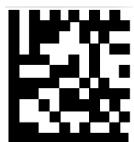
3



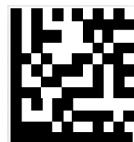
4



5



6



7



8



9



A



B



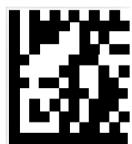
C



D



E



F

Appendix 3: Default setting

Parameter	Default
Code system	
Reverse image	Turn off
Code 128	
Code 128	Turn on
Max length	127
Min length	1
EAN-8	
EAN-8	Turn on
Parity bit	Transmit
2 bits additional code	Turn off
5 bits additional code	Turn off
Additional code	Not needed
Expand to EAN-13 code	Turn off
UPC-E	
UPC-E	Turn on
Parity bit	Transmit
2 bits additional code	Turn off
5 bits additional code	Turn off
Additional code	Not needed
Expand to UPC-A	Turn off
System symbol “0”	Not transmit

Parameter	Default
UPC-A	
UPC-A	Turn on
Parity bit	Transmit
2 bits additional code	Turn off
5 bits additional code	Turn off
Additional code	Not needed
Leading symbol "0"	Not transmit
Interleaved 2 of 5	
Interleaved 2 of 5	Turn on
Parity bit	Not transmit
Max length	100
Min length	6
Matrix 2 of 5	
Matrix 2 of 5	Turn off
Max length	127
Min length	6
Straight 2 of 5 Industrial	
Matrix 2 of 5	Turn off
Max length	127
Min length	6
Code 39	
Code 39	Turn on
Start/End symbol	Transmit
Code 39 Full ASCII	Turn on
Max length	127
Min length	4

Parameter	Default
Codabar	
Codabar	Turn on
Start/End symbol	Not transmit
Max length	127
Min length	1
Code 93	
Code 93	Turn on
Max length	127
Min length	3
Code 11	
Code 11	Turn on
Parity bit	Not transmit
Max length	127
Min length	2
PDF 417	
PDF 417	Turn on
Max length	2710
Min length	1
QR Code	
QR Code	Turn on
Max length	7089
Min length	1
Data Matrix	
Data Matrix	Turn on
Max length	3116
Min length	1

Parameter	Default
MSI	
MSI	Turn on
Max length	127
Min length	2

Chapter 5 Wireless configuration

5.1 Transmitting terminal

5.1.1 Enter setting & Save&exit

Enter setting	@SET	
Save&Exit	@END	

Notice:

1. Except quick setting instruction, other settings need to scan Enter Setting code first, then scan function code, and scan Save&Exit code.
2. If under setting situation, scanner scan non-setting code, it will make a sound for warning. No warning means normal.
3. Quick setting instruction can scan function barcode directly.

5.1.2 Start pairing

Start pairing	
Remove pairing	

Notice:

Start pairing: After the receiver has power, please pair within 20 seconds(LED light is flashing). After 20seconds, LED light will be normally on and cannot pair.

5.1.3 Setting interface

Enter setting	@SET	
*USB output		
Virtual COM Port output		
Save&Exit	@END	

Notice:

When need to change USB and Virtual COM Port, please scan the setting barcode, and do not plug the receiver

5.1.4 Wired output setting

Enter setting	@SET	
*Turn on USB wired output		
Turn off USB wired output		
Save&Exit	@END	

5.1.4 HID keyboard language

Enter setting	@SET	
American English		
France		
German		
Turkish		
French (Belgian)		
Brazil		

Czech		
Spanish(Latin America)		
Save&Exit	@END	

Notice:

That setting barcode is valid to Tx and Rx.If set multiple languages under the condition of wireless connection is broken, it will come the Rx language successfully set, but the Tx fails.

5.1.5 Check parameter

Enter setting	@SET	
Check system parameter		
Save&Exit	@END	

Notice:

Checking parameter command send to receive together with system parameter, each parameter separated by End symbol, as PKT{Protocol character|Parameter1+0x0D|parameter2+0x0D |.....} ({ }SDK contend inside)

5.1.10 Operation mode

*Real time mode		
Cache mode		
Inventory mode		

Notice 1:

Real time mode: Upload data immediately after scanning, if upload fail, data will lose automatically.

Cache mode: It work the same as real time mode if connection normal, but if the cradle out of power, and connect the power again, under the Cache mode, the data which are stored when the power off will keep uploading.

Inventory mode: Scan the barcode, not upload immediately, store automatically, all data will upload after scan “Upload data”barcode, and it will clear all data after scan “Clear data”, or check the data amount after scan “Data amount” barcode.

Notice 2:

The above three barcodes are quick commands, it will enter and save setting after scanning. The storage is 10,000 pcs 13Byte barcodes in inventory mode, 30,000 pcs 13Byte barcodes in cache mode.

5.1.11 Inventory mode operation setting

Upload data		
Data amount		
Clear data		

Notice: The above three barcodes are quick commands, it will enter and save setting after scanning.

5.1.12 Sleep time setting

Enter setting	@SET	
*20s		
60s		
3mins		
5mins		
15mins		
30mins		
None sleep mode		
Save&Exit	@END	

5.1.13 Initialization

Enter setting	@SET	
Restore wireless default setting		

Save&Exit	@END	
----------------------	------	--

Notice:

Restore wireless default setting: Restore default interface, language, operation mode, sleep time, wired output switch.

5.2.1 Set prefix

Enter setting	@SET	
*Disable prefix		
User-defined prefix barcode		
Save&Exit	@END	

Example: Sets the prefix of the barcode “1234567” to “#Ab9”, namely the output barcode is “#Ab91234567”.

1. Scan “Enter setting” barcode
2. Scan “User-defined prefix + barcode” barcode
3. Scan “#”, “A”, “B”, “9” Barcode one by one.
4. Scan “Save&Exit”

5.2.2 Set suffix

Enter setting	@SET	
Disable suffix		
*User-defined prefix barcode		
Save&Exit	@END	

1. System factory default End symbol: 0x0D (Enter)
2. Common End symbol 0x0D (Enter), 0x0A (换行), 0x09 (Tab)

Example: Sets the suffix of the barcode “1234567” to “%B”, namely the output

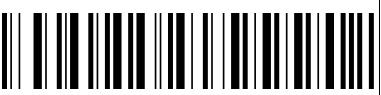
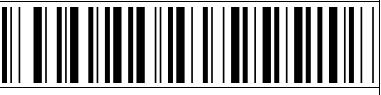
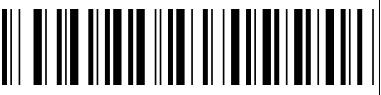
barcode is “1234567%B”.

1. Scan “Enter setting” barcode
2. Scan “User-defined suffix + barcode” barcode
3. Scan “%”, “B” barcode one by one.
4. Scan “Save&Exit”
5. System factory default End symbol: 0x0D(Enter)
6. Common End symbol 0x0D(Enter), 0x0A(换行), 0x09(Tab)

Notice:

		
0x0D(Enter)	0x0A(Line feed)	0x09(Tab)

5.2.3 Notify sound system

Enter setting	@SET	
*Turn on starting sound		
Turn off starting sound		
*Turn on sound of successful delivery		
Turn off sound of successful delivery		
Save&Exit	@END	

5.2.4 Instruction system

Item	Status notice types	Sound notice types	LED light status
Normal boot detection instruction			
1	Wireless mode abnormal detection	Three short beeps (High frequency)	Red light flashes thrice
2	external storage module abnormal	Two long beeps (High frequency)	Red light flashes twice

	detection		
3	Normal boot	Four short beeps(High, middle,low frequency)	Green light Normally on
Pairing status instruction			
4	Turn on wireless pairing	One short beeps(High frequency)	LED light flashes once
5	wireless pairing status	None	LED light flashes
6	Wireless pairing failure	None	Red light Normally on, green light off
7	Wireless pairing success	Three long beeps(High, middle, low frequency), big difference	Green light Normally on
Setting situation Instruction			
8	Enter setting	One long and two short beeps(High, middle, low frequency)	Green light flashes once
9	Exit	One long and two short beeps(High, middle, low frequency)	Green light flashes once
10	Setting command status time	One long and one short beeps(High, low frequency)	Green light Normally on
11	Effective command	One long and two short beeps(High, middle, low frequency)	Green light flashes once
12	Noneffective command	One long beep(low frequency)	Green and red light flashes once both
Inventory mode indication			
13	Data upload success	One short beep(High frequency)	Green light flashes once
14	Data upload failure	Three short beeps(Middle frequency))	Red light flashes thrice
15	Inventory mode storage full	Two long beeps(High frequency))	Red light flashes twice
Real time mode status Instruction			

17	Data upload success	One short beep(High frequency)	Green light flashes once
18	Data upload failure	Three short beeps(Middle frequency))	Red light flashes thrice
Battery status Instruction			
20	Charging status	None	Blue light turn on
21	Charging completed	None	Blue light turn off, green light on
22	Sleep/power off	One long beep(low frequency)	Light off
23	Low Battery indication	None	Red light on(Won't influence green light)
Quick command Instruction			
24	Quick command	One long and two short beeps(High, middle, low frequency)	Green light flashes once
Data overflow			
25	Data overflow	One long beep(low frequency)	Red light flashes once

Item	System status	Sound warning	Indicator status
2.4G & 433USB portable receiver			
1	Power on within 30 seconds	---	Green light flashes slowly
2	After power on 30 seconds	---	Green light Normally on
3	Received SDK	---	Green light flashes once

Appendix

Appendix 1: Character

Control character	Hex	
^@ (NULL)	00	
^A (SOH)	01	
^B (STX)	02	
^C (ETX)	03	

^{^D} (EOT)	04	
^{^E} (ENQ)	05	
^{^F} (ACK)	06	
^{^G} (BEL)	07	
^{^H} (BS)	08	
^{^I} (HTab)	09	
^{^J} (LF)	0A	
^{^K} (VTab)	0B	
^{^L} (FF)	0C	
^{^M} (CR)	0D	
^{^N} (SO)	0E	
^{^O} (SI)	0F	
^{^P} (DLE)	10	
^{^Q} (DC1)	11	
^{^R} (DC2)	12	
^{^S} (DC3)	13	
^{^T} (DC4)	14	
^{^U} (NAK)	15	
^{^V} (SYN)	16	
^{^W} (ETB)	17	

[^] X (CAN)	18	
[^] Y (EM)	19	
[^] Z (SUB)	1A	
[^] [(ESC)	1B	
[^] \ (FS)	1C	
[^]] (GS)	1D	
[^] ^ (RS)	1E	
[^] _ (US)	1F	
SPC	20	
Character	Hex	
!	21	
"	22	
#	23	
\$	24	
%	25	
&	26	
'	27	
(28	
)	29	

*	2A	
+	2B	
,	2C	
-	2D	
.	2E	
/	2F	
0	30	
1	31	
2	32	
3	33	
4	34	
5	35	
6	36	
7	37	
8	38	
9	39	
:	3A	
;	3B	
<	3C	
=	3D	

>	3E	
?	3F	
@	40	
A	41	
B	42	
C	43	
D	44	
E	45	
F	46	
G	47	
H	48	
I	49	
J	4A	
K	4B	
L	4C	
M	4D	
N	4E	
O	4F	
P	50	
Q	51	

R	52	
S	53	
T	54	
U	55	
V	56	
W	57	
X	58	
Y	59	
Z	5A	
[5B	
\	5C	
]	5D	
^	5E	
-	5F	
'	60	
a	61	
b	62	
c	63	
d	64	
e	65	

f	66	
g	67	
h	68	
i	69	
j	6A	
k	6B	
l	6C	
m	6D	
n	6E	
o	6F	
p	70	
q	71	
r	72	
s	73	
t	74	
u	75	
v	76	
w	77	
x	78	
Y	79	

z	7A	
{	7B	
	7C	
}	7D	
~	7E	
DEL	7F	
Keyboard keys	Hex	
F1	80	
F2	81	
F3	82	
F4	83	
F5	84	
F6	85	
F7	86	
F8	87	
F9	88	
F10	89	
F11	8A	
F12	8B	

Backspace	8C	
Tab	8D	
Return (ENTER)	8E	
Enter (Numeric Keypad)	8F	
Esc	90	
Arrow Down	91	
Arrow up	92	
Arrow right	93	
Arrow left	94	
Insert	95	
Home	96	
End	97	
Page up	98	
Page down	99	
Left Shift	9A	
Left Ctrl	9B	
Left Alt	9C	
Left GUI	9D	
Right Shift	9E	
Right Ctrl	9F	

Right Alt	A0	
Right GUI	A1	
Caps Lock	A2	

Appendix 2: ASCII barcode list

Decimal	Octal	Hexadecima	Character	Description
0	0	00	NUL	
1	1	01	SOH	start of header
2	2	02	STX	start of text
3	3	03	ETX	end of text
4	4	04	EOT	end of transmission
5	5	05	ENQ	enquiry
6	6	06	ACK	acknowledge
7	7	07	BEL	bell
8	10	08	BS	backspace
9	11	09	HT	horizontal tab
10	12	0A	LF	line feed
11	13	0B	VT	vertical tab
12	14	0C	FF	form feed
13	15	0D	CR	carriage return
14	16	0E	SO	shift out
15	17	0F	SI	shift in
16	20	10	DLE	data link escape
17	21	11	DC1	no assignment, but usually XON
18	22	12	DC2	
19	23	13	DC3	no assignment, but usually XOFF
20	24	14	DC4	
21	25	15	NAK	negative acknowledge
22	26	16	SYN	synchronous idle
23	27	17	ETB	end of transmission block
24	30	18	CAN	cancel
25	31	19	EM	end of medium
26	32	1A	SUB	substitute
27	33	1B	ESC	escape
28	34	1C	FS	file separator

Decimal	Octal	Hexadecima	Character	Description
29	35	1D	GS	group separator
30	36	1E	RS	record separator
31	37	1F	US	unit separator
32	40	20	SPC	space
33	41	21	!	
34	42	22	"	
35	43	23	#	
36	44	24	\$	
37	45	25	%	
38	46	26	&	
39	47	27	,	
40	50	28	(
41	51	29)	
42	52	2A	*	
43	53	2B	+	
44	54	2C	,	
45	55	2D	-	
46	56	2E	.	
47	57	2F	/	
48	60	30	0	
49	61	31	1	
50	62	32	2	
51	63	33	3	
52	64	34	4	
53	65	35	5	
54	66	36	6	
55	67	37	7	
56	70	38	8	
57	71	39	9	
58	72	3A	:	
59	73	3B	;	
60	74	3C	<	
61	75	3D	=	
62	76	3E	>	
63	77	3F	?	
64	100	40	@	
65	101	41	A	
66	102	42	B	

Decimal	Octal	Hexadecima	Character	Description
67	103	43	C	
68	104	44	D	
69	105	45	E	
70	106	46	F	
71	107	47	G	
72	110	48	H	
73	111	49	I	
74	112	4A	J	
75	113	4B	K	
76	114	4C	L	
77	115	4D	M	
78	116	4E	N	
79	117	4F	O	
80	120	50	P	
81	121	51	Q	
82	122	52	R	
83	123	53	S	
84	124	54	T	
85	125	55	U	
86	126	56	V	
87	127	57	W	
88	130	58	X	
89	131	59	Y	
90	132	5A	Z	
91	133	5B	[
92	134	5C	\	
93	135	5D]	
94	136	5E	^	
95	137	5F	_	
96	140	60	`	
97	141	61	a	
98	142	62	b	
99	143	63	c	
100	144	64	d	
101	145	65	e	
102	146	66	f	
103	147	67	g	
104	150	68	h	

Decimal	Octal	Hexadecima	Character	Description
105	151	69	i	
106	152	6A	j	
107	153	6B	k	
108	154	6C	l	
109	155	6D	m	
110	156	6E	n	
111	157	6F	o	
112	160	70	p	
113	161	71	q	
114	162	72	r	
115	163	73	s	
116	164	74	t	
117	165	75	u	
118	166	76	v	
119	167	77	w	
120	170	78	x	
121	171	79	y	
122	172	7A	z	
123	173	7B	{	
124	174	7C		
125	175	7D	}	
126	176	7E	~	
127	177	7F	DEL	delete
128	200	80	F1	
129	201	81	F2	
130	202	82	F3	
131	203	83	F4	
132	204	84	F5	
133	205	85	F6	
134	206	86	F7	
135	207	87	F8	
136	210	88	F9	
137	211	89	F10	
138	212	8A	F11	
139	213	8B	F12	
140	214	8C	Backspace	
141	215	8D	Tab	
142	216	8E	Return	

Decimal	Octal	Hexadecima	Character	Description
143	217	8F	Enter	
144	220	90	Esc	
145	221	91	Arrow Down	
146	222	92	Arrow up	
147	223	93	Arrow right	
148	224	94	Arrow left	
149	225	95	Insert	
150	226	96	Home	
151	227	97	End	
152	230	98	Page up	
153	231	99	Page down	
154	232	9A	Left Shift	
155	233	9B	Left Ctrl	
156	234	9C	Left Alt	
157	235	9D	Left GUI	
158	236	9E	Right Shift	
159	237	9F	Right Ctrl	
160	240	A0	Right Alt	
161	241	A1	Right GUI	
162	242	A2	Caps Lock	

Appendix 3: Example codes

EAN13



UPC-A



EAN8



UPC-E



Default data: 1234565

Codabar



Code 93



Encoded data: c01235d

Code 39(Regular)



Code 39(Full ASCII)



Encoded data: *Code 39*

GS1 Databar



Encoded data: 65473728281919