



BX-211

2D Imager
Barcode Scanner

OPERATION MANUAL



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1. Introduction

Thank you for purchasing this brand-new designed 2D imager hand held barcode scanner.

This is a cutting-edge gun-type Area Imaging barcode scanner which is designed specifically for government administration, custom control, shipping industry and etc. That adds on more user friendly functions and has replaceable cable that makes it more easily to be operated by the customers.

This high performance gun-type scanner provides the customer with the most cost effective solution in the market. It is perfectly suitable and definitely the best choice for you.

1.1 Safety & caution

- 1) Please read the following safety statement carefully.
- 2) Please preserve this user manual for reference sometime.
- 3) Before cleaning the device, the users must cut off all AC power. Do not use liquid or spray type of detergent to clean the device. Please use dampish cotton cloth to clean the device.
- 4) The outlet must set nearby the device for connecting power easily.
- 5) Keep the device dry to avoid short circuit.
- 6) During installation you must fix the equipment at solid table to avoid damage caused by falling.
- 7) Before inserting power please ensure the voltage is healthy to the equipment.
- 8) For safety please tie wire well and don't put anything on the wire.
- 9) If you don't use this equipment for long time, please cut off the power to avoid damage from surge power.
- 10) Don't spray any liquid on this scanner because it may cause a fire or short circuit.
- 11) Please do not open the equipment. For safety only the qualified serviceman can open the equipment.
- 12) If there are the following situations please contact with the qualified serviceman to check this equipment.

- 13) The damage of wire or pin of power supply.
- 14) Some Liquid infiltrate into the equipment.
- 15) The equipment has been exposed to wet environment.
- 16) The equipment can't work well.
- 17) The equipment has any obvious damage, making the device working abnormally.
- 18) Don't storage the device at the temperature lower than -20°C (-4°F) or higher than +70°C (158°F) to avoid any damage.

1.2 FCC warning

This equipment complies with the requirements in Part 15 of FCC.

Any operation must comply with the conditions below:

- 1) The equipment will not cause any severe interference.
- 2) The equipment can avoid any interference from environment.

Warning!

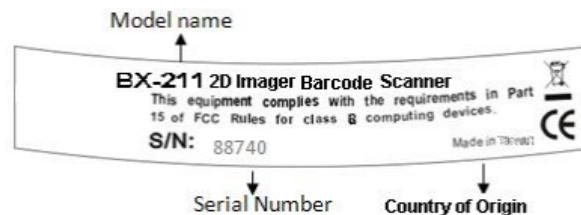


Statement:

This product is classified as B class product. In environment this product may cause some interference. In this situation the user may do something to avoid interference.

1.3 Labeling

BX-211 serial



2. General Description

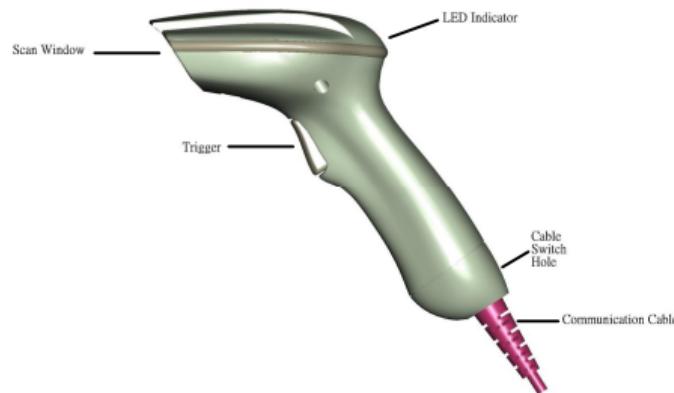
2.1 Product Description

BX-211 is a high performance wire 2D imager barcode scanner supporting liner, area imager barcode scanning and picture capture.

This device is very easy to configure by this manual, you can set up by scanning all necessary programming codes one time that meet applications, the settings are directly saved permanently, and all settings can be disabled after scan reset factory default.

2.2 Illustration

BX-211 Series



3. Installation

3.1 Unpacking

- 1) Take device and its accessories out of the box.
- 2) Remove the packing material.
- 3) Check the standard shipment packing list to make sure you have received all of the items ordered.

BX-211 series

- 2D Imager Scanner
- Power Adaptor (if applied)
- Communication Cable
- Quick Start Guide

- 4) Visually inspect the device and accessories for any evidence of physical damage.
- 5) If anything is missing or appears to be damaged, immediately contact your dealer.

ATTENTION:

Store the packing material and boxes: it should be used whenever the device is transported for servicing.

3.2 Mounting

Once you have unpacked all components, you can start installing the device as below steps:

BX-211 2D Imager Barcode Scanner

- 1) Connect the supplied communication cable at the bottom side of the scanner and you will hear a "click" when the connection is made.
- 2) Turn off the host system.
- 3) Connect the communication cable to Host system.
- 4) Connect the Power supply (if needed) to Power cable inlet. And plug the power supply into the AC outlet.
- 5) Turn on the host system.

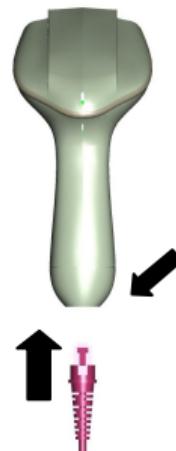
USB Driver

In case you will use the device with USB virtual com port emulation, please contact with your dealer and download the correct USB driver for virtual com port. Since it is necessary to install the USB driver on your Host system and operate correctly between the device and your system.

Switching Cable

Before removing the cable from the scanner, it's recommended to turn off the power of the host system and the power supply has been disconnected from unit.

- 1) Find the small "Pin-hole" on the bottom of the unit.
- 2) Use a bended regular paperclip and insert the tip into the hole.
- 3) You will hear a "click", then gentle on the strain-relief of the cable and it will slide out of the scanner.



Skip resistant pad position



4. Configuring

4.1 Preface

How to configure this device: The Barcode Programming Feature gives the possibility to change the scanner settings with use programming codes.

4.2 Changing Scanner Settings with Programming Codes

You can setup your device by scanning all necessary programming codes for parameters that meet applications. After these scans, the device will save directly and permanently. To go back to the factory default settings, just scans the programming code factory default.

In order to change the scanner settings please follow the sequence below:

- 1) Power-up the scanner.
- 2) Change scanner settings by scanning any of the programming code that meet applications.

An Example:

For changing the Baud rate to 38400 only scan the programming code that represents this.

After reading a valid programming code the scanner will give a High beep and the green led indicator will lights on.

At any moment, you can stop your programming and read programming code factory default to go back to default.

4.3 Changing Scanner Settings with Utility Tool

Manufacturer has setup this scanner with the most common used programming codes, it could be possible that you need more advanced settings to use the scanner without any problems into your application.

In this case you can setup your scanner by using the advanced Utility Tool. This tool can be used with the following operation systems: Windows98, Windows2000, Windows XP en Windows Vista.

This Utility Tool can be delivered on request. Please contact your dealer

4.4 Factory Default Settings

The factory default settings are shown with * and bold in the followings sections

The readable and default enable symbologies list, please see Appendixes A.

5. Operating Settings

5.1 Scanning Triggering

<Level>



A reading session begins (lighting and decode processing on) when beam is activated and stops when beam is deactivated.

Continuous Scanning



When the scanner is turned on a continuous reading session begins (lighting and decode processing on).

Pulse



A reading session begins when beam is activated and stays on until a period of inactivity lasting the time specified by the timeout.

After the timeout, the scan engine turns off.

Continuous + Flashing



When the scan engine is turned on, a reading session begins (no need to activate the beam).

After a period of inactivity lasting the time specified by the timeout, the scan engine starts flashing, checking for a barcode to be read.

When a barcode is detected, the lighting automatically turns on and stays on until another period of inactivity (timeout).

After the timeout the scan engine starts flashing again.

Level + Flashing



This mode allows you the switch between level and flashing mode.

When the scanner is turned on it is in flashing mode (see flashing mode for explanation).

You can automatically switch to level mode by activating the beam line.

After a period of inactivity lasting the time specified by the timeout the scan engine switches back to flashing mode.

Flashing



Flashing mode allows power up the lighting and decoding are on (no need to activate the trigger line) and after a period of inactivity lasting the time specified by the trigger timeout, the scanner starts flashing, checking for a bar code to be read.

When a bar code is detected, the lighting and decoding automatically turn on and stay on until another period of inactivity (timeout), after the timeout the scanner starts flashing again.

Autostand



This mode allows you to switch from Flashing trigger mode to Level trigger mode.

Autostand begins in flashing mode: At power up the lighting and decoding are on (no need to activate the trigger line) and after a period of inactivity lasting the time specified by the trigger timeout, the scanner starts flashing.

To switch to Level trigger mode activate the trigger line (press the trigger).

When in Level trigger mode, after a period of inactivity lasting the time specified by the trigger timeout, the scanner switches back to flashing mode.

Toggle



This mode allows lighting and decoding toggle when the trigger line is activated.

First trigger activation = lighting and decoding on,
second trigger activation = lighting and decoding off.

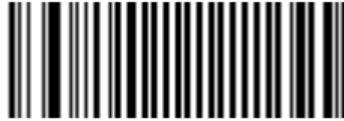
Presentation



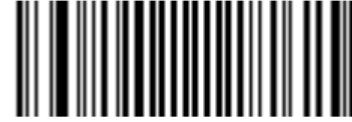
This mode allows power up lighting and decoding are on. After a period of inactivity lasting the time specified by the trigger timeout, the lighting turns off or is dimmed. When a new bar code is presented the lighting and decoding restart and stay on until another period inactivity.

5.2 Time Out

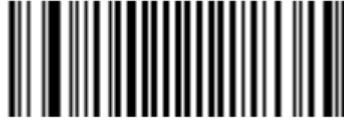
<2 sec>



4 sec



6 sec



5.3 Good Read Mode

When active, the scan engine stops the reading session after a successful decoding.

Note: This parameter is NOT used with continuous and continuous + flashing modes.

<Active >



Not Active



5.4 Buzzer Beep Tone

5.4.1 Beep Tone Setup

<High >



Medium



Low



5.4.2 Good Read Beeps

<One Beep >



Two Beeps



None



5.4.3 Beep Duration

60 msec



<80 msec>



200 msec



Off



5.4.4 Timing

<During Transmission>



Before Transmission



After Transmission



5.5 Good Read Duration

5.5.1 Good Read Led Duration

<80 msec >



0.5 sec



1 sec



Off



5.5.2 Error Beep

<On >



Off



5.5.3 Setup Beep

<On>



Off



5.6 Bad Read Message Settings

<Default = "NOREAD" >



Active



<Not Active >



6. Imager Settings

6.1 Imager Mode

You can set the best reading performance depends on the environment, your used application and type of barcodes.

- Linear mode for decode 1D Barcodes.
- Area mode for decode 1D and 2D barcodes.

Area mode allows you to set the position of the BX-211 in any direction regardless of the orientation of the barcode, and perform a good read on 1D and 2D barcodes.

Linear mode allows you to increase your decoding speed while scanning 1D barcodes. But, you need to position the beam across all bars in the 1D barcode.

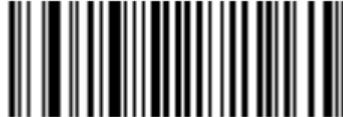
<Area imager>



Linear imager



1D and 2D Codes, Bright Environment



1D and 2D Codes With Reflective Surface



6.2 Firmware Version

Display the firmware version of the scanner, please scan below barcode.

Firmware Version



7. Programming Codes

7.1 Factory Default

The default RS232 settings are 57600 baud, 8 data bits, and no parity.

The factory default settings are shown with bold < > in the following pages.

7.1.1 To set the scanner parameters to factory default

Set factory default



Reset all configuration parameters to their factory default setting. After this reset you must select all required parameters that meet applications.

7.2 RS232 Parameters

7.2.1 Baud Rate

75



150



300



600



1200



2400



4800



9600



19200



38400



<57600>



115200



128000



230400



256000



460800



7.2.2 Data Bits

Data Bits 7



<Data Bits 8>



7.2.3 Stop Bits

<Stop Bits 1>



Stop Bits 2



7.2.4 Parity

<None>



Even



Odd



7.2.5 Hardware/Software Protocols Timeout

Compose (ms): 500



<Compose (ms):1000>



Compose (ms): 1500



Compose (ms): 2000



Compose (ms): 2550



7.2.6 RS-232 Parameters—ENQ

<Not Active>



Active



<Default: 05H>



7.2.7 RS-232 Parameters—ACK

<Not Active>



Active



<Default: 06H>



7.2.8 RS-232 Parameters-NAK

<Not Active>



Active



<Default: 15H>



7.2.9 Software Protocol-XON/XOFF

Active



<Not Active>



7.2.10 Hardware Protocol-RTS/CTS

<Not Active>



Active, RTS idle after each character



Active, RTS idle after whole message



7.2.11 RS-232 Parameters-LRC

(Longitudinal Redundancy Check)

<Not Active>



Active



7.2.12 RS-232 Parameters-Inter-Character Delay

<None>



10 ms

20 ms



40 ms



30 ms



50 ms



7.2.13 RS-232 Parameters-Inter-Message Delay

<None>



10 ms

30 ms



50 ms

80 ms



100 ms



7.3 USB Parameter

USB Mode



Note: The “Set factory default” setting (Chapter 7.1.1) would return to the original default setting instead of the customized setting. That is, if you are using the USB interface, your device will lose USB interface settings when the “Set factory default” be set. Then you must to re-configure USB mode setting barcode again.

7.4 Decoding Selection

7.4.1 Symbologies Selection

Australian Post ON



<Australian Post OFF>



AZTEC ON



<AZTEC OFF>



BPO ON



<BPO OFF>



Canada Post ON



<Canada Post OFF >



CODABAR ON



<CODABAR OFF>



Codablock A ON



<Codablock A OFF >



Codablock F ON



<Codablock F OFF >



CODE 11 ON



<CODE 11 OFF>



<CODE 39 ON>



CODE 39 OFF



CODE 93 ON



<CODE 93 OFF>



<CODE 128 ON>



CODE 128 OFF



<GS1-128 ON>



GS1-128 OFF



<DATAMATRIX ON>



DATAMATRIX OFF



Dutch Post ON



<Dutch Post OFF>



<EAN-8 ON>



EAN-8 OFF



<EAN-13 ON>



EAN-13 OFF



<EAN 128 ON>



EAN 128 OFF



GS1 CC-A/B ON



<GS1 CC-A/B OFF>



GS1 CC-C ON



<GS1 CC-C OFF>



GS1 DataBar-Omni ON



<GS1 DataBar Omni OFF >



GS1 DataBar Limited ON



<GS1 DataBar Limited OFF>



GS1 DataBar Expanded ON



<GS1 DataBar Expanded>



Infomail ON



<Infomail OFF>



Interleaved 2 of 5 ON



<Interleaved 2 of 5 OFF>



Japan Post ON



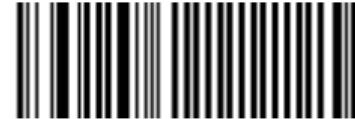
<Japan Post OFF>



Matrix 2 of 5 ON



<Matrix 2 of 5 OFF >



MaxiCode ON



<MaxiCode OFF>



MicroPDF417 ON



<MicroPDF417 OFF>



MSI ON



<MSI OFF>



<PDF417 ON>



PDF417 OFF



Planet ON



<Planet OFF>



PLESSEY ON



<PLESSEY OFF>



Postnet ON



<Postnet OFF>



QR Code ON



<QR Code OFF>



Standard 2 of 5 ON



<Standard 2 of 5 OFF>



Sweden Post ON



<Sweden Post OFF >



Telepen ON



<Telepen OFF>



TLC 39 ON



<TLC 39 OFF>



<UPC-A ON>



UPC-A OFF



<UPC-E ON>



UPC-E OFF



7.4.2 Disable All Symbologies.

If you want to disable all Symbologies, please scan below programming code. Or you can scan the “Off” option to disable individual symbologies.

Disable All Symbologies



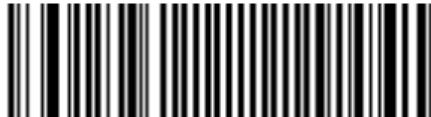
Note: Do not reset individual parameters settings for each symbology. When you enable a symbology, you will recover the parameter settings stored in memory.

Anytime, you may reset to factory defaults by scanning the programming code of “Set factory default” (please see 7.1.1)

7.5 Australian Post Settings

7.7.1 Symbology Identifier

<UDSI-Default"P3">



<Code Mark-Default"**">



7.6 Aztec Settings

7.6.1 Structure Append Mode

Active

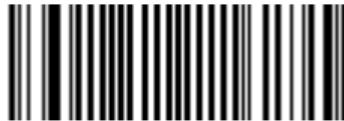


< Not Active>



7.6.2 Aztec Runes

Active



<Not Active>



7.6.3 GS1-128 Emulation

Active

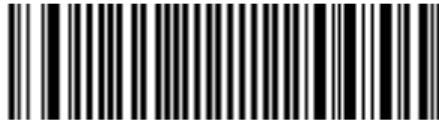


<Not Active>



7.6.4 Symbology Identifier

<UDSI-Default"D3">



<Code Mark-Default"**">



7.7 BPO Settings

7.7.1 Symbology Identifier

<UDSI-Default"P2">



<Code Mark-Default"**">



7.7.2 Check Digit Transmission

<Active>



Not Active



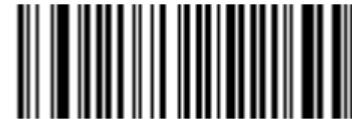
7.8 Canada Post Settings

7.8.1 Symbology Identifier

<UDSI-Default"P6">



< Code Mark-Default"*">



7.9 Codabar Settings

7.9.1 Symbology Identifier

<UDSI-Default"B7">



<Code Mark- Default"D">



7.9.2 Start/Stop

<Not Transmitted>



Transmitted-a,b,c,d



Transmitted-A,B,C,D



Transmitted-a,b,c,d/t,n,*,e



Transmitted-DC1,DC2,DC3,DC4



7.9.3 CLSI Library System

Active (insert spaces)



<Not Active>



7.9.4 Check Digit Verification

Used



<Not Used>



7.9.5 Check Digit Transmission

Transmitted



<Not Transmitted>



7.9.6 Concatenation

<Not Active >



Transmit All Codes
(Single, Concatenated)



Transmit Concatenated Codes Only



<No Start/Stop Restrictions>



Stop 1 = Start 2



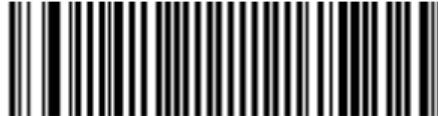
ABC (American Blood
Commission)



7.10 Codablock Settings

7.10.1 Symbology Identifier

<Codablock A
UDSI-Default"K0">



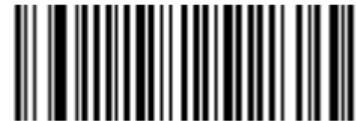
<Codablock A
Code Mark-Default"**">



<Codablock F
UDSI-Default"K1">



<Codablock F
Code Mark-Default***>



7.11 Code 11 Settings

7.11.1 Symbology Identifier

<UDSI-Default"C1">



<Code Mark-Default***>



Check Digits

<1 Digit>



2 Digits



<Checked and Transmitted>



Checked but not
Transmitted



7.12 Code 39 Settings

7.12.1 Symbology Identifier

<UDSI-Default"B1">



<Code Mark-Default***>



7.12.2 Format

<Standard 43 Characters>



Full ASCII (Extended)



7.12.3 Start/Stop

<Not Transmitted>



Transmitted



7.12.4 Accepted Characters

<Only(Standard Code 39)>



\$ Only(Trioptic Code 39)



\$ and *

(Standard and Trioptic Code 39)



7.12.5 Check Digit Verification

<Not Used >



Modulo 43



French CIP



Italian CPI



<Check Digit not Transmitted >



Check Digit Transmitted



7.12.6 Reading Range

<Extended >



Normal



7.12.7 Reading Tolerance

<High >



Medium



Low



7.13 Code 93 / Code 93i Settings

7.13.1 Symbology Identifier

<UDSI-Default"B6">



<Code Mark-Default"D">



7.14 Code 128 / GS1-128 Settings

7.14.1 Symbology Identifier

<UDSI-Code 128-Default"B3">



<UDSI-GS1-128-Default"C9">



<Code Mark-Code 128-Default"D">



<Code Mark-GS1-128-Default"D">



7.14.2 GS1-128 Identifier

<Include]C1 Identifier>



Remove]C1 Identifier



7.14.3 CIP 128 French Pharmaceutical Codes

Active



<Not Active >



**<FNC1 Separator Character
(GS1-128 norms)-<GS>(1Dh)>**



7.14.4 Reading Tolerance

<High >



Medium



Low



7.14.5 ISBT 128

Active



<Not active >



Transmit Single

<Codes Only >



**Transmit Concatenated
Codes Only**



**Transmit Single Codes/
Concatenated Codes**



**<Concatenate Authorized
ISBT 128 Code Pairs Only>**



**Concatenate All
ISBT 128 Code Pairs**



7.14.6 GTIN Processing for GS1-128

Active



<Not Active >

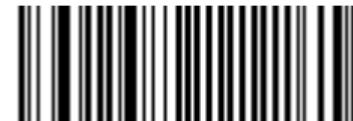


7.14.7 Unconventional GS1-128

<Active>



Not Active



7.15 DataMatrix Settings

7.17.1 Symbology Identifier

<UDSI-Default"D0">



<Code Mark-Default"**">



7.16 Dutch Post Settings

7.18.1 Symbology Identifier

<UDSI-Default"P4">



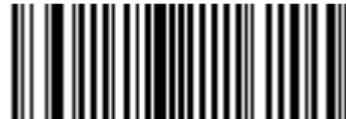
<Code Mark-Default"**">



7.17 EAN /UPC Parameters Settings

7.17.1 Reading Type

<UPC-A Transmitted As EAN-13>



UPC-A Transmitted As UPC-A



<UPC-E Transmitted As UPC-E >



UPC-E Transmitted As UPC-A



EAN-8 Transmitted As EAN 8 >



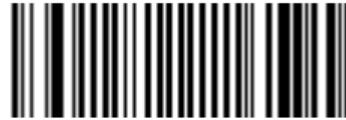
EAN-8 Transmitted As EAN-13



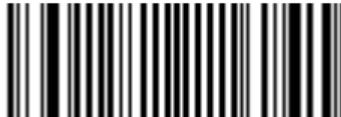
ISBN – Active



ISMN – Active



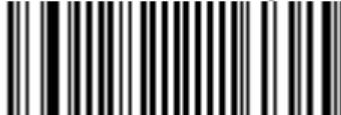
ISSN – Active



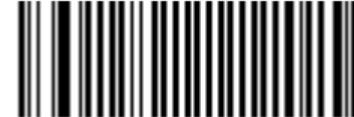
<ISSN - Not Active >



GTIN Processing – Active



<GTIN Processing - Not Active >



7.17.2 Supplemental Setup

<ADD-ON Digits Not Required but Transmitted If Read>



ADD-ON Digits
Required and Transmitted



ADD-ON 2 ON



<ADD-ON 2 OFF >



ADD-ON 5 ON



<ADD-ON 5 OFF >



7.17.3 Check Digit Transmission

<UPC-A Check Digit
Transmission ON >



UPC-A Check Digit
Transmission OFF



<UPC-E Check Digit
Transmission ON >



UPC-E Check Digit
Transmission OFF



<EAN-8 Check Digit
Transmitted ON >



EAN-8 Check Digit
Transmission OFF



<EAN-13 Check Digit
Transmitted ON >

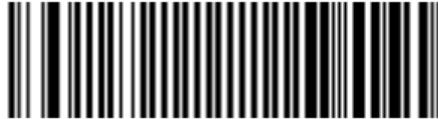


EAN-8 Check Digit
Transmission OFF

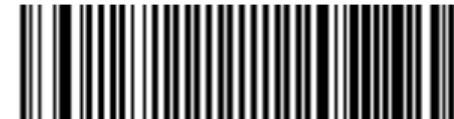


7.17.4 Symbology Identifier

<UDSI-UPC-A-Default"A0">



<UDSI-UPC-E-Default"E0">



<UDSI-EAN-8-Default"FF">



<UDSI-EAN-13-Default"F">



<Code Mark-UPC-A-Default"A">



<Code Mark-UPC-E-Default"E">



<Code Mark-EAN-8-Default"FF">



<Code Mark-EAN-13-Default"F">



7.18 GS1 Composite Settings

7.18.1 EAN/UPC Composite Message Decoding

<Auto-Discriminate >



Always Linked

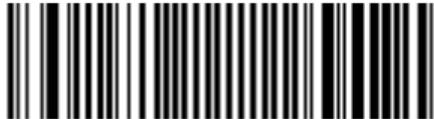


Never Linked



7.18.2 Symbology Identifier

<UDSI-CC-A/B-Default"G0">



<UDSI-CC-C-Default"G1">



<Code Mark-CC-A/B-Default"**>



<Code Mark-CC-C-Default"**>



7.18.3 Linear Transmission Only

Active



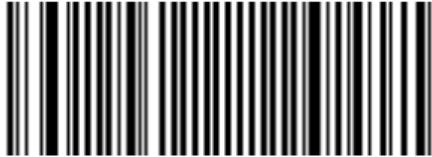
<Not Active >



7.19 GS1 DataBar Settings

7.19.1 Symbology Identifier

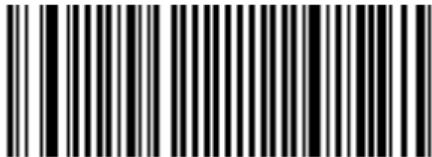
<Omni-UDSI-Default"C3">



<Omni-Code Mark-Default""*>



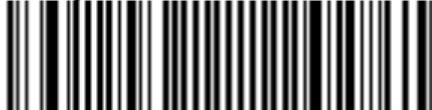
<Limited-UDSI-Default"C4">



<Limited-Code Mark-Default""*>



<Expanded-UDSI-Default"C5">



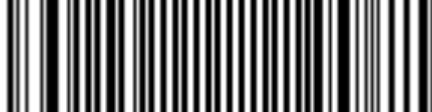
<Expanded-Code Mark-Default""*>



7.20 Infomail Settings

7.20.1 Symbology Identifier

<UDSI-Default"P8">



<Code Mark-Default "*">



7.21 Interleaved 2 of 5 Parameters

7.21.1 Check Digit Verification

<Not Used >



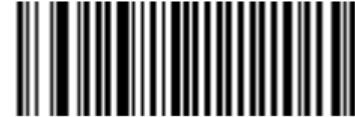
Modulo 10



French CIP



<Not Transmitted >

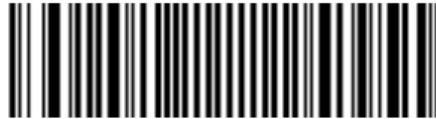


Transmitted



7.21.2 Symbology Identifier

<UDSI-Default"B2">



<Code Mark-Default "I">



7.21.3 Reading Tolerance

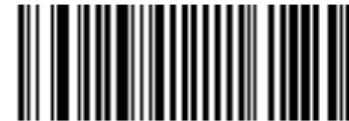
<High >



Low



Medium



7.22 Japan Post Settings

7.22.1 Symbology Identifier

<UDSI-Default"P5">



<Code Mark-Default"**>



7.22.2 Check Digit Transmission

<Active >



Not Active



7.23 Matrix 2 of 5 Settings

7.23.1 Symbology Identifier

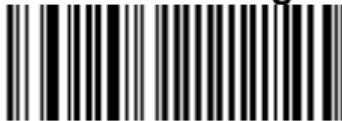
<UDSI-Default"B4">



<Code Mark-Default"D">



<Code Mark-Regular>



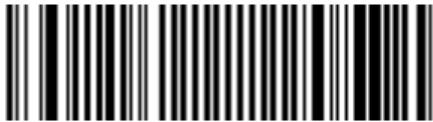
Code Mark-China Post



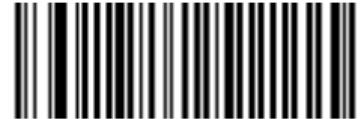
7.24 MaxiCode Settings

7.24.1 Symbology Identifier

<UDSI-Default"D2">



<Code Mark-Default***>



7.24.2 Mode 0

Active



<Not Active>



7.24.3 Header

<Regular(AIM)>



Extended



7.25 MicroPDF417 Settings

7.25.1 Symbology Identifier

<UDSI-Default"C8">



<Code Mark-Default">**



7.25.2 Code 128 Emulation

Active



<Not Active >



7.26 MSI code parameters Settings

7.26.1 Symbology Identifier

<UDSI-Default"B8">



<Code Mark-Default"D">



7.26.2 Check Digit Verification

<Modulo 10 >



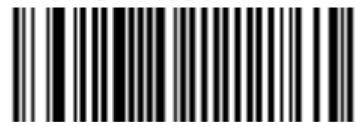
Double Modulo 10



Check Digit Transmitted >



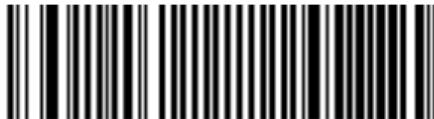
**Check Digit Not
Transmitted**



7.27 PDF417 Settings

7.27.1 Symbology Identifier

<UDSI-Default"C7">



<Code Mark-Default*>**



7.27.2 Irregular PDF

Active

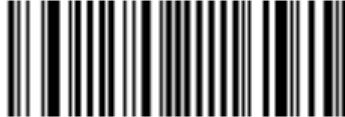


<Not Active>



7.27.3 Control Header

Transmitted



<Not Transmitted>



7.27.4 Optional Fields

File Name Transmitted



<File Name
Not Transmitted >



Segment Count Transmitted



<Segment Count
Not Transmitted >



Time Stamp Transmitted



<Time Stamp
Not Transmitted >



Sender Transmitted



<Sender Not
Transmitted >



Addressee Transmitted



<Addressee
Not Transmitted >



File Size Transmitted



<File Size
Not Transmitted >



Checksum Transmitted



<Checksum Not
Transmitted >



7.28 Planet settings

7.28.1 Symbology Identifier

<UDSI-Default"P1">



<Code Mark-Default"**>



7.28.2 Check Digit Transmission

<Active >



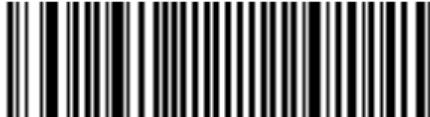
Not Active



7.29 Plessey Code Parameters

7.29.1 Symbology Identifier

<UDSI-Default"C2">



<Code Mark-Default"D">



7.29.2 Check Digit Transmission

Check Digit Transmitted



<Check Digit
Not Transmitted >



7.30 Postnet Settings

7.30.1 Symbology Identifier

<UDSI-Default"P0">



<Code Mark-Default"**>



7.30.2 Check Digit Transmission

<Active>



Not Active



7.31 QR Code Settings

7.31.1 Model 1 Control

Active



<Not Active >



7.31.2 Symbology Identifier

<UDSI-Default"D1">



<Code Mark-Default "*">



7.32 Standard 2 of 5 Settings

7.32.1 Symbology Identifier

<UDSI-Default"B5">



<Code Mark-Default"D">



7.32.2 Format

<Identicon (6 start/stop bars)>



Computer Idantics
(4 start/stop bars)



7.32.3 Check Digit Verification

<Not Used >



Modulo 10



Transmitted



Not Transmitted >



7.33 Sweden Post Settings

7.33.1 Symbology Identifier

<UDSI-Default"P7">



<Code Mark-Default "*">



7.34 Telepen Settings

7.34.1 Symbology Identifier

<UDSI-Default"C6">



<Code Mark-Default*>**



7.34.2 Format

<ASCII>



Numeric



7.35 TLC 39 Settings

7.35.1 Symbology Identifier

<UDSI-Default" H0">



<Code Mark-Default "*">



7.35.2 Linear Transmission Only

Active



<Not Active >



7.35.3 ECI security

<10>



7.36 Miscellaneous Parameters

7.36.1 Symbology Identifier

Symbology Identifier Transmitted



<Symbology Identifier
Not Transmitted>



With this function ON, a leading character will be added to the output string while scanning codes, user may refer to the following table to know what kind of barcode is scanned.

Please refer to the table below for matching code Symbology Identifier of codes read in.

	ID	Code Type	ID
Aztec	*	Interleaved 2 of 5	I
Codabar	D	GS1 DataBar Omini	*
Code 11	*	GS1 DataBar Expanded	*
Code 39	*	GS1 DataBar Limited	*
Code 93	D	MSI code	*
Code 128	D	Plessey Code	D
DataMatrix	*	PDF417	*
EAN-8	FF	MicroPDF417	*
EAN-13	F	UPC-A	A
EAN-128	D	UPC-E	E

7.37 Preambles and Postambles

7.37.1 Preamble

The scanner can be programmed to output Barcode data according to the following format: [PREAMBLE STRING] [BAR CODE DATA]

Example:

To send a <STX> in front of the barcode, scan only programming code <STX>.

As a result, the scanner will give the following barcode output: [<STX>] [BAR CODE DATA]

<Preamble None >



<STX>



7.37.2 Postamble

The scanner can be programmed to output Barcode data according to the following format: [BAR CODE DATA] [POSTAMBLE STRING]

Example:

To send a <ETX> after the Barcode, scan only programming code <ETX>.

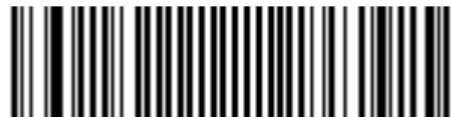
As a result, the scanner will give the following barcode data output:

[BAR CODE DATA] [<ETX>]

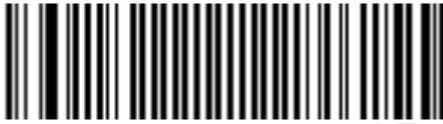
Postamble None



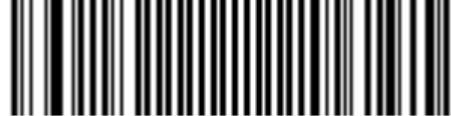
<CR+LF >



CR



LF



<ETX>



Appendices

A. Readable Symbologies

A-1. 1D Symbologies

Symbologies	Readable	Default Enable
EAN/UPC	<input type="radio"/>	<input type="radio"/>
UCC/EAN128	<input type="radio"/>	<input type="radio"/>
ISBN	<input type="radio"/>	
ISBT	<input type="radio"/>	
Code 11	<input type="radio"/>	
Code 39	<input type="radio"/>	<input type="radio"/>
Code 93/93i	<input type="radio"/>	
Code 128	<input type="radio"/>	<input type="radio"/>
Interleaved 2 of 5	<input type="radio"/>	
Matrix 2 of 5	<input type="radio"/>	
Instustrial 2 of 5	<input type="radio"/>	
Standard 2 of 5	<input type="radio"/>	
Codabar	<input type="radio"/>	
MSI	<input type="radio"/>	
Plessey	<input type="radio"/>	
Telepen	<input type="radio"/>	
BPO	<input type="radio"/>	
Codablock	<input type="radio"/>	
Informail	<input type="radio"/>	
Planet	<input type="radio"/>	
TLC 39	<input type="radio"/>	
Postnet	<input type="radio"/>	
Postal codes	<input type="radio"/>	
GS1-128		<input type="radio"/>
GS1 CC-A/B/C	<input type="radio"/>	
GS1 DataBar Omnidirectional	<input type="radio"/>	
GS1 DataBar Limited	<input type="radio"/>	
GS1 DataBar Expanded	<input type="radio"/>	

A-2. 2D Symbologies

Symbologies	Readable	Default Enable
Data Matrix	<input type="radio"/>	
PDF417	<input type="radio"/>	<input checked="" type="radio"/>
MicroPDF417	<input type="radio"/>	
MaxiCode	<input type="radio"/>	
QR code	<input type="radio"/>	
Aztec	<input type="radio"/>	
EAN.UCC composite	<input type="radio"/>	

B. Technical Specifications

B-1 Physical Characteristics

Weight	
Scanner	Approx. 135g
KBW cable	Approx. 75g
RS232 Cable	Approx. 123g
USB Cable	Approx. 67g
AC adaptor	Approx. 125g
Material	ABS Plastic
Connector	RJ 45C 10Pins
Cable Length	5Ft. (150mm)
Dimension	193x90x72mm

B-2 Performance characteristics

Light source	Visible Red light 650nm ± 10nm
Scan rate	200scans/sec auto adaptive in linear mode 56 images/sec auto adaptive in area mode
Optical resolution	752 Horizontal x 480 Vertical pixels, 256 gray levels
Scan angle	Horizontal 70°±10% (Forward: 20° / Backward: 50°) Vertical 80°±10% (Left 40°/ Right 40°)
Interface	RS232, USB (HID KBW and Virtual COM Port)

B-3 Indicator LED Status

Light	Signal	Status
Green	1 blink and 1 beep	good read and transmitted

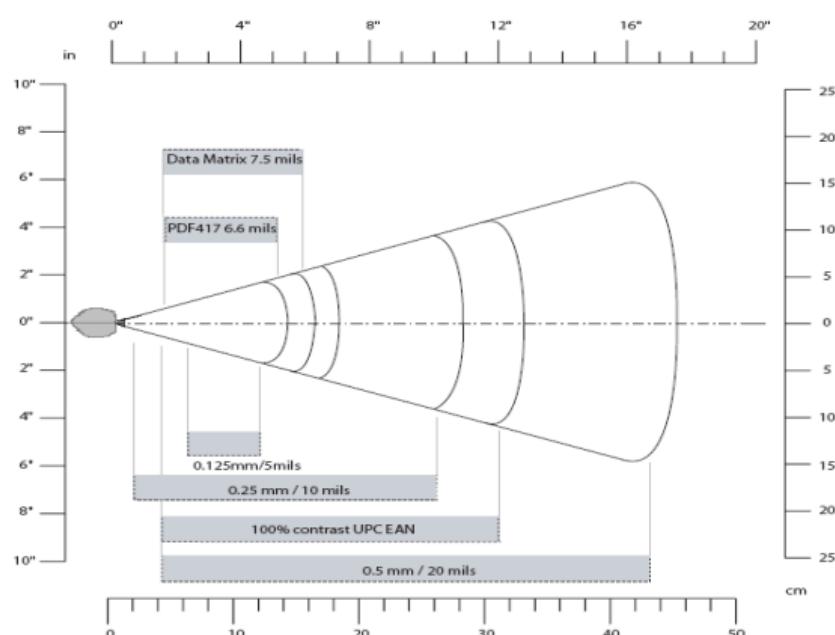
B-4 Electrical Characteristics

Operation Voltage	5 VDC ±5%
Current Operating	450 mA (max) @ 5 VDC
Current Standby	37 mA typical @ 5 VDC
AC transformers	5.2 VDC @ 650 mA / Input AC 100-240V

B-5 Environmental

Operating Temp	0°C to 50°C
Storage Temp.	-20°C to 70°C
Relative Humidity	0 to 95% non-condensing
Ambient light	100,000 Lux (direct sunlight)

C. Scan Map

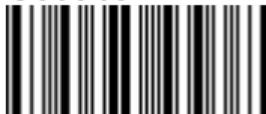


Symbology	Density	Minimum Distance (+/- 10%)	Maximum Distance (+/- 10%)
Code 39	0.125 mm	5.2 cm	12.1 cm
	0.20mm	2.0 cm	21.5 cm
	0.25mm	2.4 cm	26 cm
	0.5mm	4 cm	44 cm
	1mm	7 cm	82 cm
UPC / EAN	0.33 mm	4 cm	31 cm
Data matrix	0.191 mm	5.3 cm	16.2 cm
	0.254 mm	3.8 cm	21 cm
	0.381 mm	*	28 cm
PDF417	0.16 mm	5.2 cm	14.4 cm
	0.254 mm	3.5 cm	22 cm
	0.381 mm	3 cm	36 cm

D. Test Symbologies

Scan one or more of these barcodes to test barcode symbologies you enabled.

Codabar



Code 39



Code 93



Code 128



DataMatrix



EAN 8



EAN13



EAN 128



Interleaved 2 of 5



MSI code



PDF417



GS1 DataBar
Omnidirectional



GS1 DataBar Omni Stacked



GS1 DataBar Expanded



GS1DataBar Expanded
Stacked



GS1 DataBar Limited



UPC A



UPC E



0145-88E004
V00