

SPECIFICATION

Customer :

Customer's Model No. :

Model No. : **IG710BT** Bluetooth Area Imager Barcode Scanner

Date :

Sample Serial No. :

Spec. Version & Revision Date: V01 2014.09.02

Received/Approved by

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Revision History

Version	Date	Context
V00	2014.05.27	Initial release
V01	2014.09.02	Drop Spec and Thermal Shock modify

TABLE OF CONTENTS

A.	General Description.....	4
B.	Physical Characteristics.....	5
C.	Performance	9
D.	Electrical Characteristics	10
E.	Environmental	10
F.	Reading Range	10
G.	Readable Symbologies	12
H.	Reliability.....	13

A. General Description

IG710BT is a brand new gun-type wireless area imager bar code scanner which supports IP54 water and dust protection, is designed especially for retail, logistic and warehousing management market. We include friendly functions with replaceable multi-interface cable options that makes it more easily to be operated by the customers to accommodate it to user environment.

IG710BT supports 1D and 2D barcode scanning with up to 500mm reading depth for the majority of 1D, 2D bar codes and GS1 DataBar™ codes. Its scan rate is up to 120 scans per second in linear emulation and 60 images per second in 2D mode. Support out of range or batch transmission mode, memory capacity stores up to 30,000 inputs of EAN13 barcodes.

The scanner and cradle with Class1 Bluetooth V2.1 EDR technology with transmission range up to 100m/ 328.08 ft. in line of open sight, supports both SPP and HID profiles can easily pair up with other Bluetooth V2.1 compatible mobile equipments or systems.

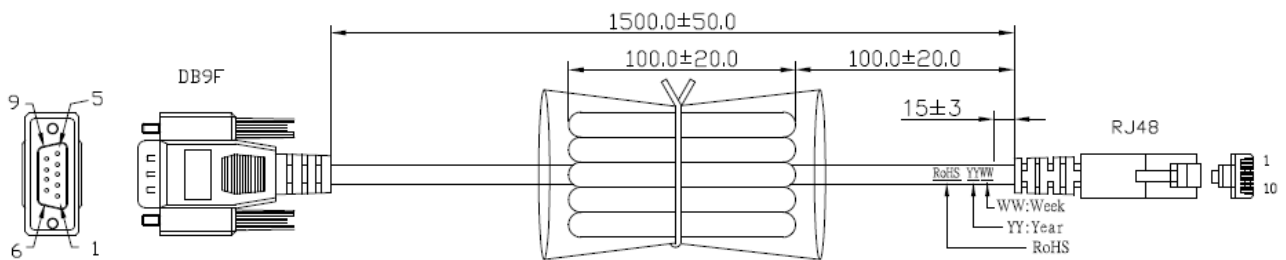
In short, IG710BT is a high performance wireless barcode scanner which provides customers with the most cost-effective solution in the market. It is perfectly suitable and definitely the best choice for any retail and logistic environment.



B. Physical Characteristics

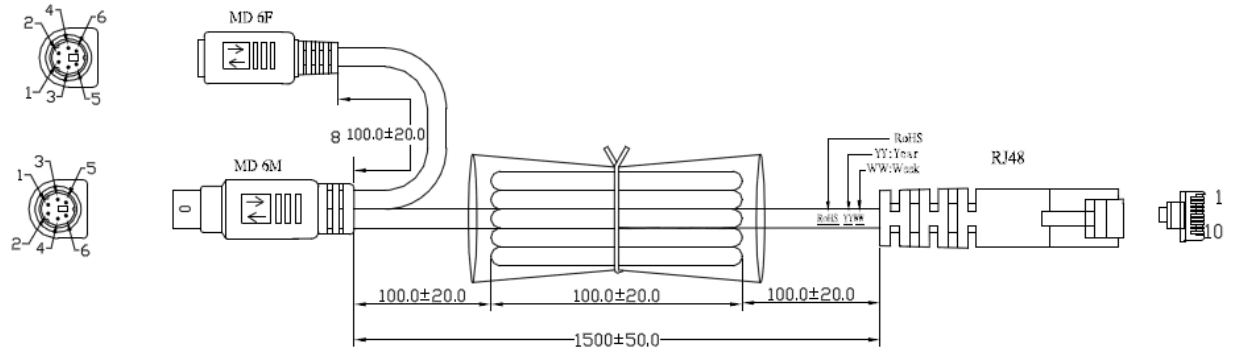
Scanner weight	Approx. 228g/ 8.04oz (with Battery)
Cradle weight	Approx. 147.4g/ 5.2oz
RS232 Cable weight	Approx. 100g/ 3.53oz
USB Cable weight	Approx. 70g/ 2.47oz
PS/2 Cable weight	Approx. 77g/ 2.71oz
AC adaptor weight	Approx 109g/ 3.84oz
Dimension	Scanner : 75.00 mm W x 171.31 mm H x 82.85 mm L Cradle : 112.18 mm W x 84.64 mm H x 130.60 mm L
Color Available	Black(Cap & Grip) / Deep grey (Cap) and Beige (Grip)

**Cradle interface cable drawing
(a) RS232 Interface**



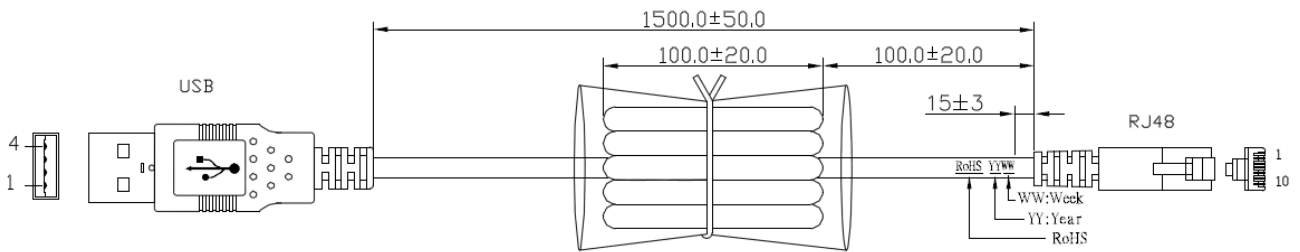
DB9F	RJ48	FUNCTION	COLOR
5	3	GND	Brown
9	5	DC +5V	Red
2	7	TXD	Orange
3	9	RXD	Yellow
8	1	RTS	Green
7	10	CTS	Blue
Shell		Spiral	

(b) PS/2 Keyboard interface



MD 6F	MD 6M	RJ45C	FUNCTION	COLOR
2	1		HOST DATA	Green
3	3	3	GND	Brown
4	5		HOST CLK	Blue
5	4	4	VCC	Red
6		5	KB CLK	Orange
8		1	KB DATA	Yellow
Spiral	Shell	Shell	SHIELDING	

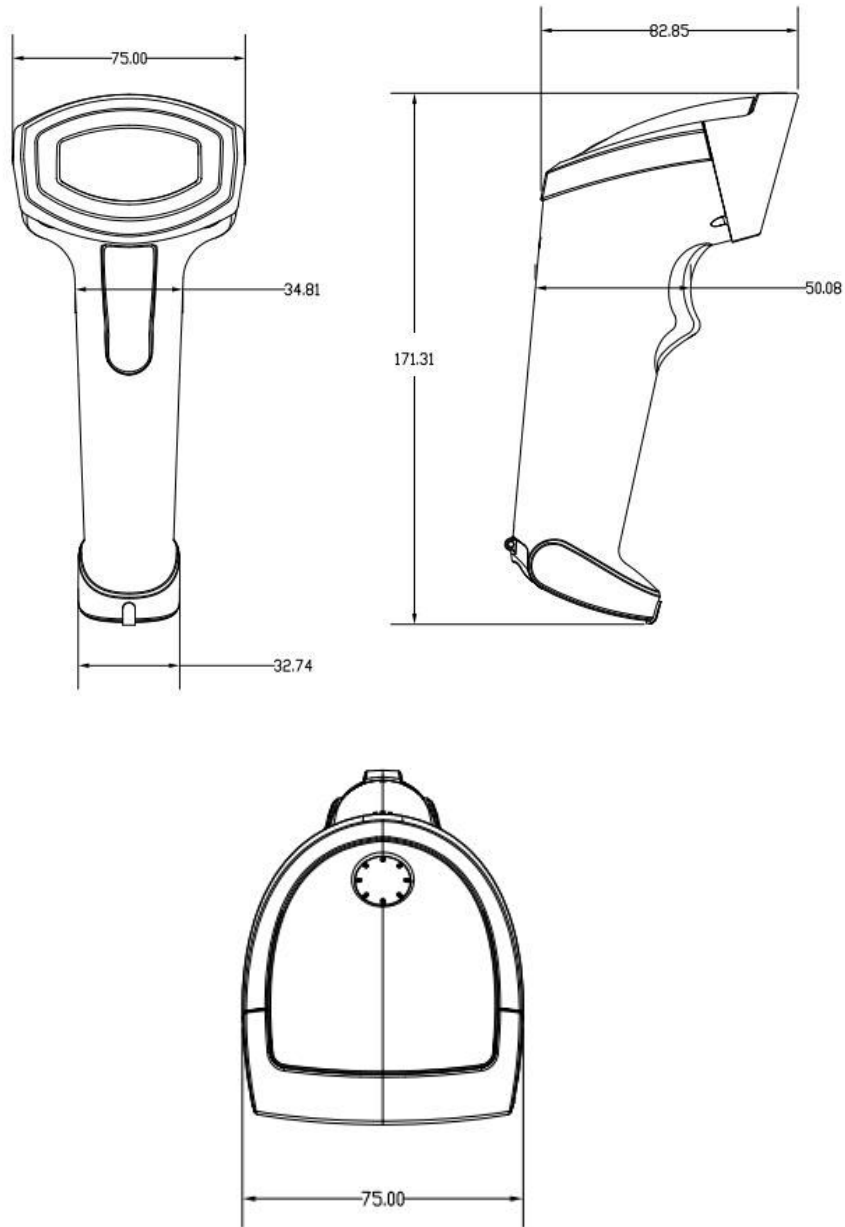
(c) USB interface



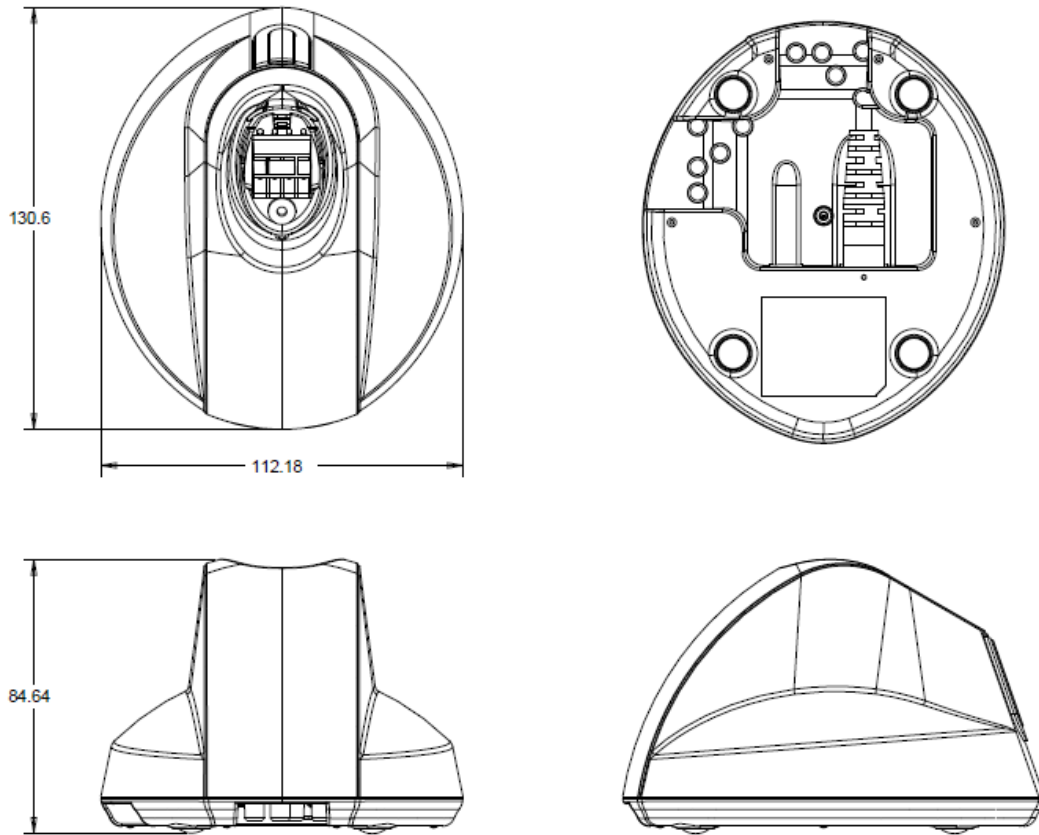
USB	RJ45	FUNCTION	COLOR
1	5	VCC	Red
2	6	D-	Green
3	8	D+	Blue
4	3	GND	Brown
Shell	3	SHIELDING	

Mechanical drawing

(a) Scanner Dimension:

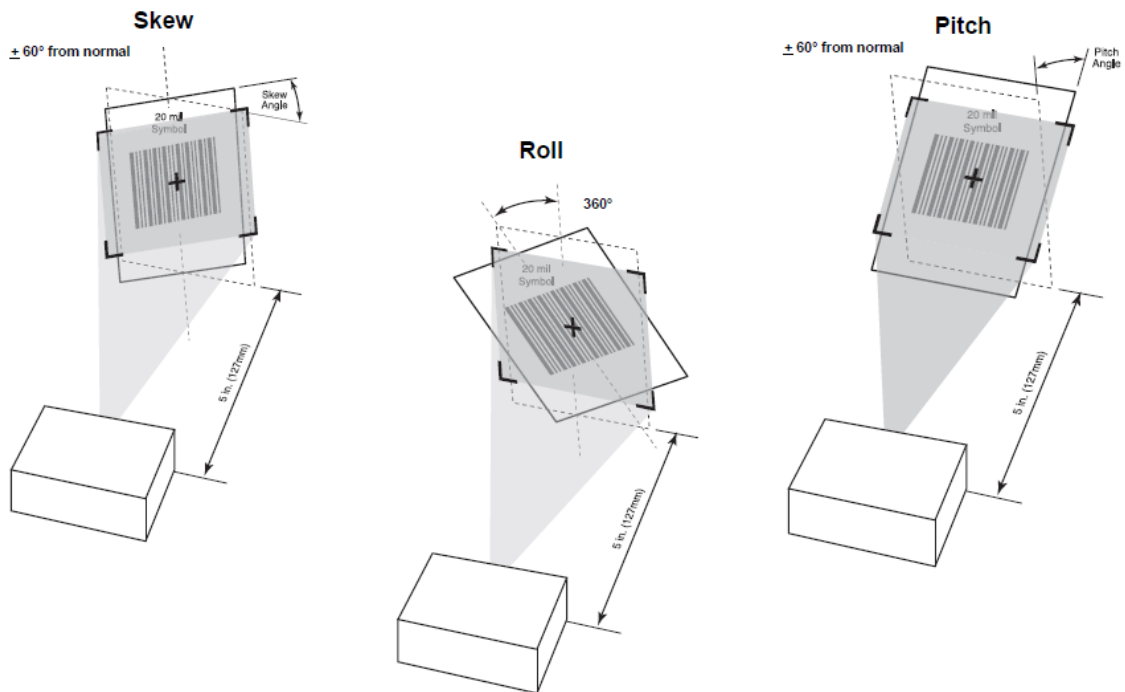


(b) Cradle Dimension:



C. Performance

Light source	Visible red light 625nm LED
Resolution	752 (H) x 480 (V) pixels
View of field	Horizontal - 40°, Vertical - 25°
Pitch	±60°(from front to back)
Skew	±60°(from plane parallel to symbol(side- to-side))
Roll	±180°
Interface	RS-232, USB (HID KBW or Virtual comport)
Indicators	Green = good read
Batch/out of range reading	Support batch transmission mode, memory capacity stores up to 30,000 inputs of EAN13 barcodes.



D. Electrical Characteristics

Scanner:

Power Battery	Li-ion 3.7V / 2600 mAh
Charge Time	Approx. 5 hours
Reads per Charge	20,000 times in continuous read
LED Indicator	Good read: Green Error / Alarm: Red Bluetooth Communication: blue

Power Consumption

Power On	430mA
Stand by	310mA
Operation	330mA
Sleep	6mA

Cradle:

Input Voltage	5 VDC @ 2 A / Input AC 110-240V
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Power Consumption

Power On	95mA
Stand by	55mA
Operation	70mA

LED Indicator	Good read: Green Bluetooth Communication: blue
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E. Environmental

Operating Temp	0°C to 50°C (32°F to 122°F) Storage
Storage Temp.	-20°C to 70°C (-4°F to 158°F)
Relative Humidity	20% to 95% (Non-condensing)
Ambient light	100,000 Lux Max. (Sunlight)

F. Reading Range

The following table summarizes the reading distance for the specified codes with both the wide area field and the high density field enabled and active for decoding.

Focus Range	Near	Far
5.0 mil Code 39	1.9 in./4.7 cm	7.7 in./19.4 cm
20 mil Code 39	Field of view limited	24.0 in./60.9 cm
6.67 mil PDF417	2.7 in./6.8 cm	7.0in./17.9 cm
15 mil PDF417	Field of view limited	13.2 in./33.5 cm
10 mil Datamatrix	Field of view limited	8.3 in./21.0 cm
13 mil 100% UPC	2.8 in./7.2 cm	16.8 in./42.4 cm

Code Type	Density	Bar Code Description	Range	Typical		Guaranteed	
				Inch	cm	Inch	cm
Code 39	3 mil	STI3025	Near	2.5	6.5	2.9	7.4
			Far	4.9	12.5	4.3	10.9
	4 mil	STI4026	Near	1.9	4.9	2.3	5.7
			Far	7.2	18.3	6.9	17.5
	5 mil	ABCDEFGH	Near	1.5	3.8	1.9	4.7
			Far	8.2	20.8	7.7	19.4
	7.5 mil	ABCDEF	Near	Note 1			
			Far	11.3	28.6	10.9	27.6
	10 mil	ABCDE	Near	Note 1			
			Far	14.3	36.3	13.2	33.6
20 mil	123	Near	Note 1				
		Far	25.8	65.6	24.0	60.9	
60% UPC	7.8 mil	12345678905	Near	1.1	2.9	1.5	3.8
			Far	10.5	26.6	9.5	24.2
80% UPC	10.4 mil	12345678905	Near	1.5	3.8	2.2	5.7
			Far	13.3	33.8	12.3	31.1
100% UPC	13 mil	12345678905	Near	1.9	4.9	2.8	7.2
			Far	17.5	44.4	16.8	42.6

Note 1: Near distance is Field of View (FOV) limited by barcode’s size.

Code Type	Density	Bar Code Description	Range	Typical		Guaranteed	
				Inch	cm	Inch	cm
Code 128	5 mil	C128 MOT	Near	2.1	5.3	2.4	6.1
			Far	6.2	15.7	5.7	14.4
	20 mil	20MIL C-128	Near	Note 1			
			Far	23.3	59.1	21.2	54.0
12 of 5	10 mil	1234567897	Near	Note 1			
			Far	14.3	36.4	13.7	34.9
PDF417	5 mil	x.005y.0150	Near	3.1	7.8	3.5	8.9
			Far	5.5	13.9	5.0	12.8
	6.67 mil	x.0066y.0200	Near	2.2	5.5	2.7	6.8
			Far	7.5	19.1	7.0	17.9
	10 mil	x.0100y.0300	Near	Note 1			
			Far	10.3	26.1	9.8	25.0
	15 mil	x.0150y.0450	Near	Note 1			
			Far	14.4	36.6	13.2	33.5
Datamatrix	5 mil	1234567890 (6 times)	Near	3.4	8.6	3.7	9.5
			Far	4.3	10.9	3.5	8.8
	7.5 mil	1234567890 (6 times)	Near	2.4	6.1	2.9	7.4
			Far	6.8	17.3	6.2	15.8
	10 mil	1234567890 (6 times)	Near	Note 1			
			Far	8.9	22.7	8.3	21.0
	15 mil	1234567890 (6 times)	Near	Note 1			
			Far	12.1	30.6	11.5	29.3
QR Code	10 mil	1234567890 (6 times)	Near	Note 1			
			Far	7.4	18.8	6.9	17.7

Note 1: Near distance is Field of View (FOV) limited by barcode’s size.

G. Readable Symbologies

1D Symbologies	Readable	Default Enable
EAN/UPC	V	V
UCC/EAN128	V	V
ISBN	V	
ISBT	V	
Code 11	V	
Code 39	V	V
Code 93/93i	V	
Code 128	V	V
Interleaved	V	
Matrix	V	V
Instustrial	V	
Standard 2 of 5	V	
Codabar	V	
MSI	V	
Plessey	V	
Telepen	V	
Postal codes	V	
GS1 DataBar	V	V

2D Symbologies	Readable	Default Enable
Data Matrix	V	V
Data Matrix Inverse	V	
PDF 417	V	V
Micro PDF 417	V	
Maxicode	V	
QR code	V	V
QR code Inverse	V	
Aztec (& Inverse)	V	V
EAN.UCC composite	V	
MicroQR code	V	V

H. Reliability

Life Time

Trigger Switch	1,000,000 times
MTBF(Calculated)	50,000 hours

Thermal Shock

High Temp.	50°C (122°F)
Low Temp.	-20°C (-4°F)

Cable Bending Test 25,000 times minimum (30 times/min @ 500g/90°)

Drop resistance 70.86 inches(180cm) drop on concrete surface