

SPECIFICATION

Customer : _____

Customer's Model No. : _____

Model No. : **IG610** General Purpose Area Image Barcode Scanner

Date : _____

Sample Serial No. : _____

Spec. Version & Revision Date: V06 2015.07.31

Received/Approved by

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Revision History

Version	Date	Context
V00	2013.03.06	Golden release
V01	2013.05.03	Body Dimension
V02	2013.07.19	Packing(Weight)
V03	2014.08.25	Removing Cable color defined
V04	2014.09.10	USB Cable Pin Assignment Modified
V05	2014.11.07	Performance, Electrical Characteristics Modified
V06	2015.07.31	Cable Drawing update

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A. General Description

IG610 is a brand new general purpose handheld area imager bar code scanner which is designed especially for retail, logistic and health care management market. We include friendly functions with replaceable multiple interface cable options that makes it more easily to be operated by customers to accommodate it to user environments.

IG610 supports with up to 500mm reading depth of 1D and 2D barcode, its scan rate is up to 120 scans per second in linear emulation and 60 images per second in 2D area mode. Based on CMOS technology for optimal image sensitivity and dynamic range, the IG600 features scanning speeds two times faster than traditional 2D imagers.

In short, IG610 is a high performance handheld area imager scanner provides customers with the most cost-effective solution in the market and perfectly suitable and definitely the best choice for any retail and logistic environment.



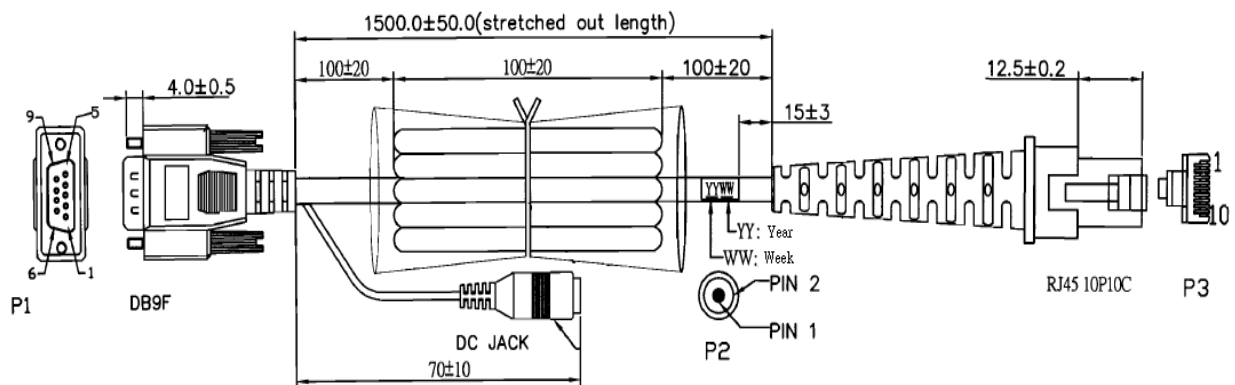
B. Physical Characteristics

Weight			
Body weight	Approx.	120g	
RS232 Cable weight	Approx.	123g	
USB Cable weight	Approx.	67g	
AC adaptor	Approx.	109 g	
Dimension	71.13 mm W x 62.61mm H x 169.27 mm L		
Material	ABS Plastic and Rubber		
Connector	RJ 45C 10Pins		

Cable drawing

Unit : mm

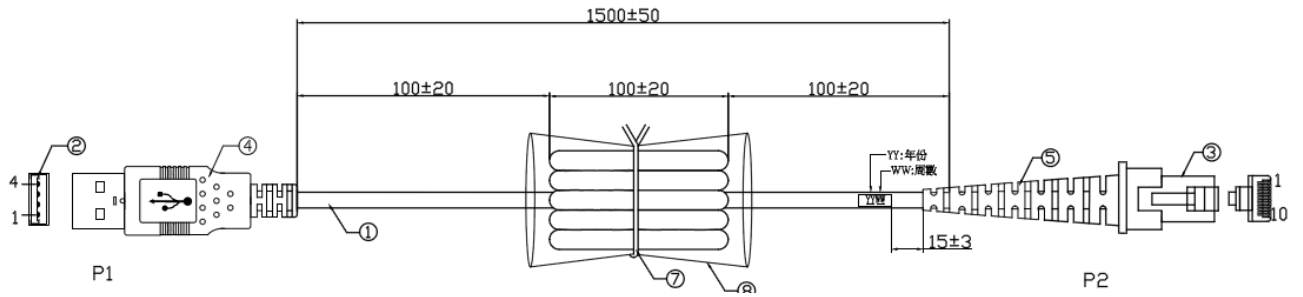
(a)RS232 Interface :



Wire table				Function
P1	P2	P3	color	
5	2	3	Brown	GND
9	1	5	Red	Power
2		7	Orange	TXD
3		9	Yellow	RXD
8		1	Green	RTS
7		10	Blue	CTS
Iron case				Shielding

(b)USB (HID KBW) interface:

(c)USB (Virtual Com port) interface :



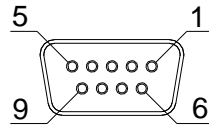
Function	wire table			Function
	P1	Color	P2	
VCC	1	Red	5	VCC
D-	2	Green	6	D-
D+	3	Blue	8	D+
GND	4	Brown	3	GND
Shielding	Iron case	Shielding	2	Shielding

Pin Assignment

(1) RS-232 Interface

DB 9 Female

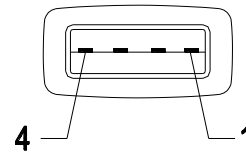
Pin No.	Function
2	TXD
3	RXD
5	GND
7	CTS
8	RTS
9	Vcc/+5V
Power Lead	Vcc/+5V



(2) USB Interface

USB A Type Male

Pin No.	Function
1	Vcc
2	D-
3	D+
4	GND

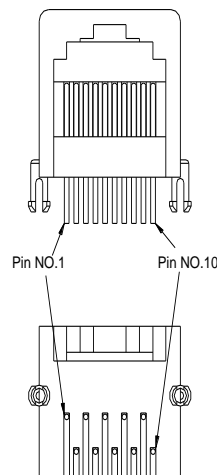


Decoder Data Output

Type RJ45 10P

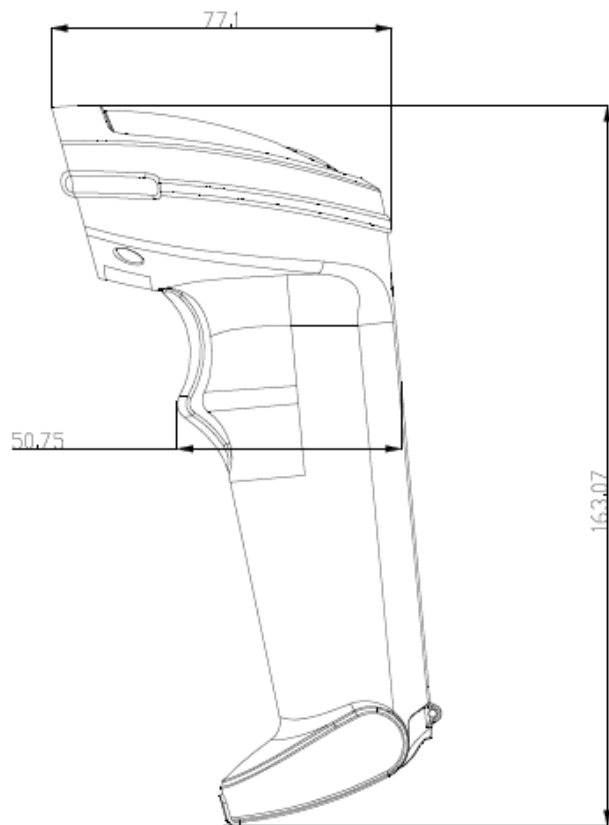
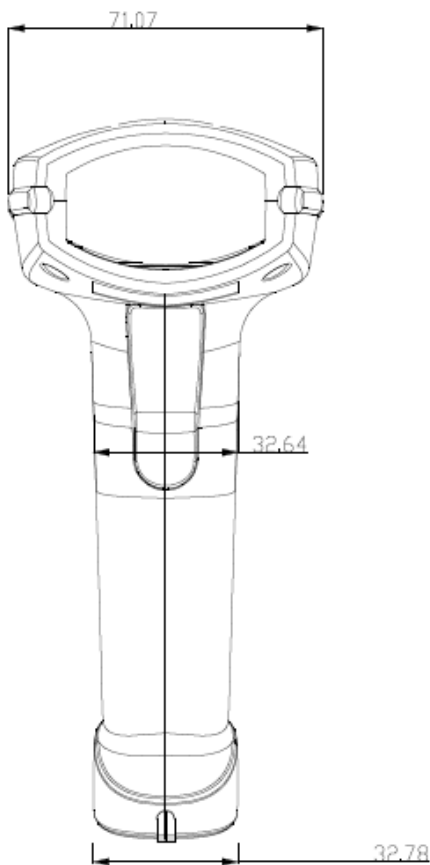
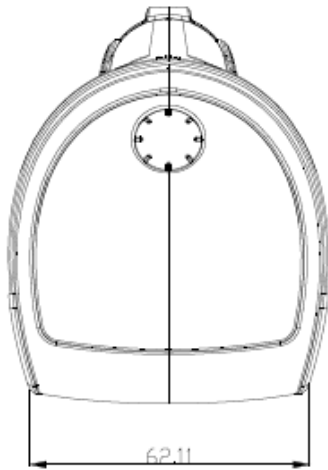
Pin No. Function

1	RTS
2	HOSTDATA
3	GND
4	HOST CLK
5	Vcc (+5V)
6	KB CLK
7	TXD
8	KB DATA
9	RXD
10	CTS



Body Dimension

Unit: mm

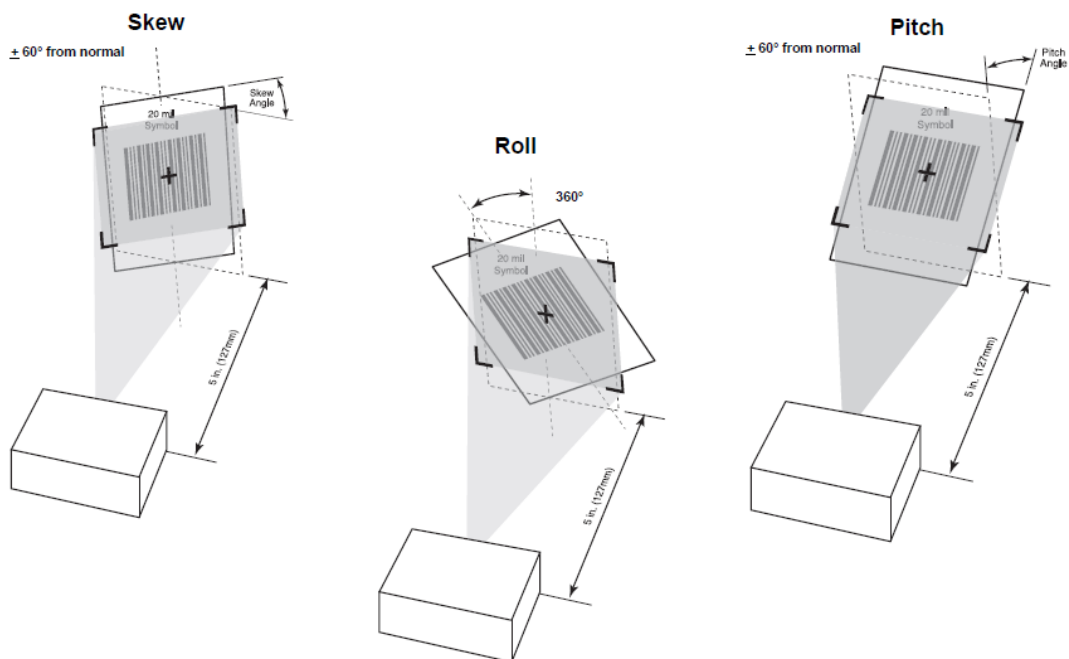


C. Electrical Characteristics

Interface	RS232	USB(HID KBW)	USB(Victual Com.)
Supply Voltage	DC Adaptor	USB Power	USB Power
		DC +5V 5%	
Current Draw		±10%	
Stand by (Typ.)	50 mA	50 mA	50 mA
Operation (Typ.)	280 mA	280 mA	280 mA

D. Performance

Light source	Visible red light 630nm 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
Resolution	3 mil (0.076mm)



E. Environmental

Operating Temp.	0°C to 50°C (32°F to 122°F)
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	7.0 in./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 C128	Near	Note 1			
			Far	23.3	59.1	21.2	54.0
I 2 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.

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			Far	5.5	13.9	5.0	12.8
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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 Symbolologies

1D Symbolologies	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 Symbolologies	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)
Cycle time	30 minutes for high temp. , 30 minutes for low temp.
Cycles	24 cycles

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

Drop resistance 59.05 inches(150cm) drop on concrete surface

I. Packing

Dimension

Unit 24 cm X 10.9 cm X 8.6 cm

Carton 57 cm X 37.5 cm X 26.5 cm

Weight

Unit 400 g

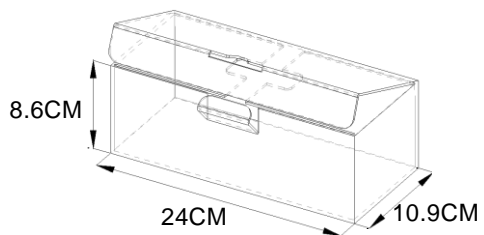
Carton 8 Kg (Q'ty :20 pcs)

Storage

Temperature -20 °C to 60 °C (-4 °F to 140 °F)

Humidity 20% to 95% (Non-condensing)

Unit :



Carton:

