

SPECIFICATION

Received/Approved by

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Revision History

Version	Date	Context
V00	2018.12.10	Release

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A. General Description

IG623 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.

IG623 supports with up to 250mm reading depth of 1D and 2D barcode, its scan rate is up to 60 images per second. Based on CMOS technology for optimal image sensitivity and dynamic range, the IG623 features scanning speeds two times faster than traditional 2D imagers. A stand option can be ordered to facilitate hand-free reading options.

In short, IG623 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

USB Cable weight Approx. 67g

Dimension 71.13 mm W x 62.61mm H x 169.27 mm L

Material ABS Plastic and Rubbe

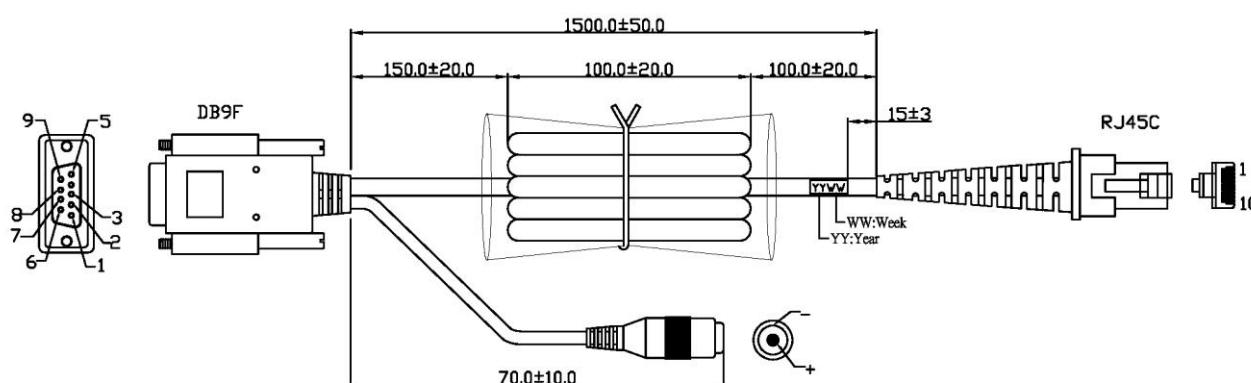
Connector RJ 45C 10Pins

Cable drawing

Unit : mm

(a)RS232 Interface :

UNIT:mm

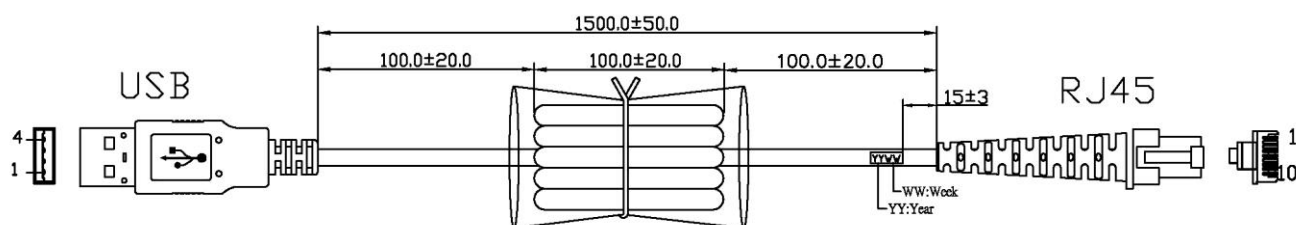


DB9F	RJ45C	DC JACK	FUNCTION	COLOR
5	3	Shell	GND	Brown
9	5	CORE	DC +5V	Red
2	7		TXD	Orange
3	9		RXD	Yellow
8	1		RTS	Green
7	10		CTS	Blue
Shell			Spiral	

(b)USB (HID KBW) interface:

(c)USB (Virtual Com port) interface :

UNIT:mm



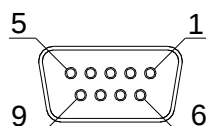
USB	RJ45	FUNCTION	COLOR
1	5	VCC	Red
2	4	D-	Blue
3	2	D+	Green
4	3	GND	Brown
Shell	3	SHIELDING	

Pin Assignment

(1) RS-232 Interface

DB 9 Female

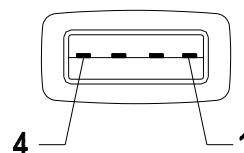
Pin No.	Function
2	TXD
3	RXD
5	GND
7	CTS
8	RTS
9	Vcc/+5V
Power Lead	Vcc/+5V



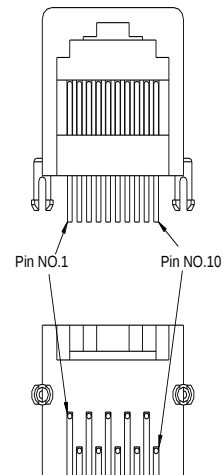
(2) USB Interface

USB A TypeMale

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

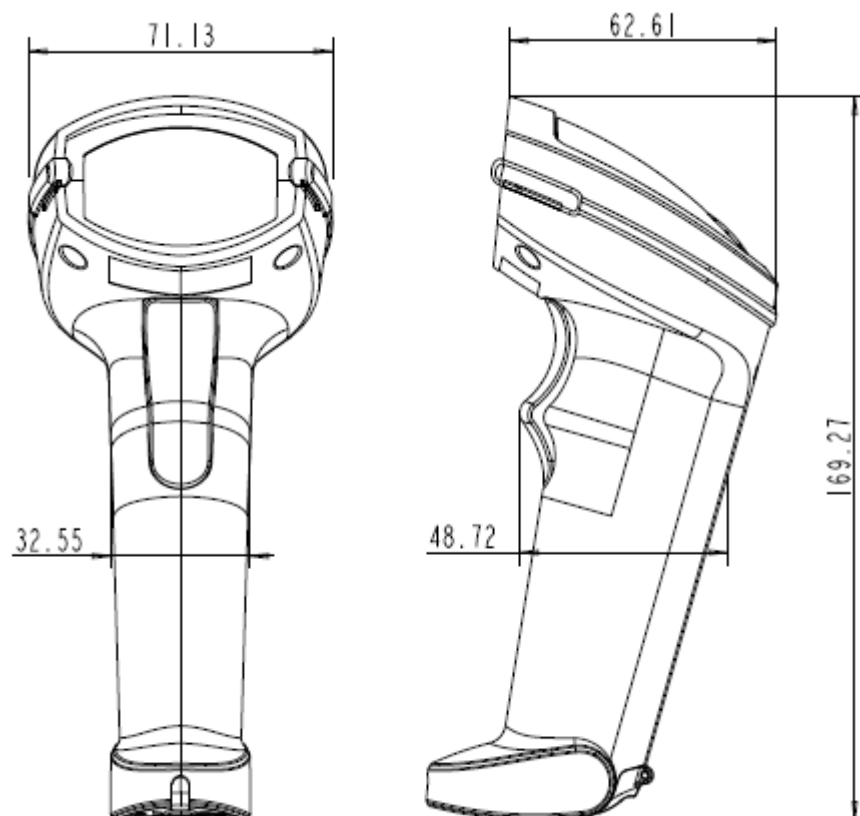


Decoder Data Output	
Type	RJ45 10P
Pin No.	Function
1	RTS
2	HOSTDATA
3	GND
4	HOST CLK
5	Vcc (+5V)
6	KB CLK
7	TXD
8	KB DATA
9	RXD
10	CTS



Body Dimension

Unit: mm



C. Electrical Characteristics

Interface	RS232	USB-HID (or Virtual COM port)
	DC Adaptor	USB Power
Supply Voltage	DC +5V±5%	
Current Draw		±10%
Stand by (Typ.)	180 mA	180 mA
Operation (Typ.)	380 mA	380 mA

D. Performance

Light Source	White light LED
Sensor	752 (H) x 480 (V) pixels
Field of view	Horizontal – 40°, Vertical – 25°
Scan Rate	60 fps (at full resolution)
Reading Distance	250mm@20mil/0.5mm, PCS90%
Print Contrast Ratio	PCS45%@5mil/0.127mm
Resolution	3mil/0.076mm@PCS90% Code39, 10mil/.26mm@PCS90% QRCode
Reading Angle	<i>Test Conditions : Code 39, 10mil/0.25mm,PCS90%</i>
Pitch Angle	5°~60° (±5°)
Skew Tolerance	5°~60° (±5°)
Ambient Light	100,000 Lux Max.

E. Environmental

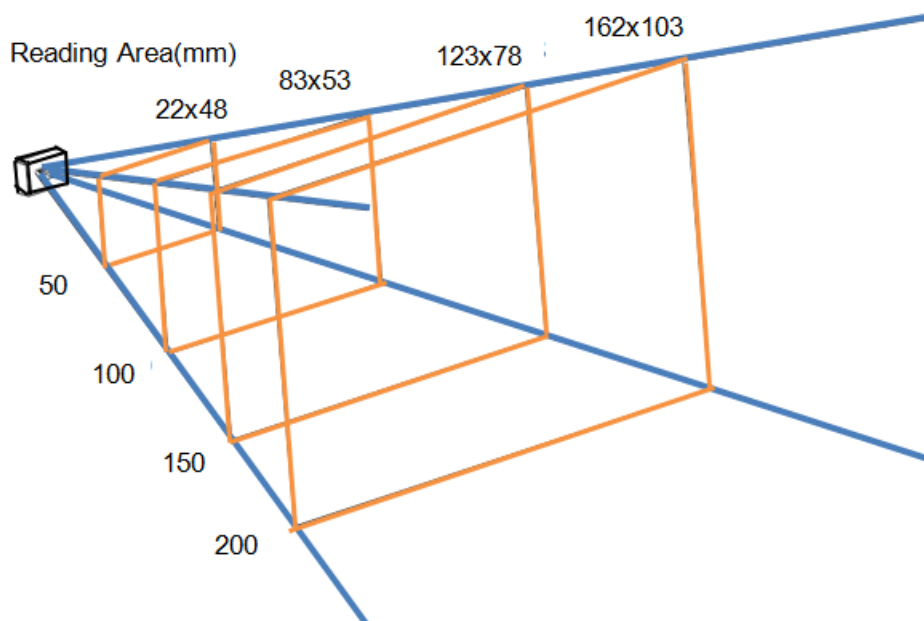
Operating Temp.	0℃ to 50℃ (32℉ to 122℉)
Storage Temp.	-20℃ to 70℃ (-4℉ to 158℉)
Relative Humidity	20% to 95% (Non-condensing)

F. Depth of field

Barcode	Depth of field
3mil Code39	40 ~ 60 mm
4mil Code39	40 ~ 90 mm
5mil Code39	30 ~100 mm
6mil Code39	30 ~110 mm
10mil Code39	30~ 150 mm
13mil Code39	30 ~180 mm
20mil Code39	30 ~ 250 mm
20mil QR Code	30 ~ 150 mm
10mil PDF417	30 ~ 110 mm
20mil PDF417	30 ~ 150 mm
20mil Data Matrix	30 ~ 200 mm

Note:

1. The test is under ambient light 700 ~ 800 Lux.
2. Reading area



G. Readable Symbolologies

1D Symbolologies	Readable	Default Enable
UPC-A	V	V
UPC-E	V	V
EAN-8/JAN-8	V	V
EAN-13/JAN-13	V	V
Code 39	V	V
Code 128	V	V
Codabar/NW7	V	V
Interleaved 25	V	V
Industrial 25	V	
Matrix 25	V	
Code 93	V	
China Post	V	
Code 11	V	
MSI/Plessey	V	
Telepen	V	
GS1 Databar Omni-directional	V	
GS1 Databar Limited	V	
GS1 Databar Expanded	V	

2D Symbolologies	Readable	Default Enable
Aztec	V	
Data Matrix	V	V
PDF 417	V	V
Micro PDF 417	Optional	
QR Code	V	V
Micro QR Code	V	
GM Code	Optional	
Han Xin Code	Optional	

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