

SPECIFICATION

Received/Approved by

SCANTECH ID®
CHAMPTEK Group

Web: <http://scantech-id.com>
E-mail: sales@scantech-id.com

SCANTECH ID
Heliumweg 34a 3812 RE Amersfoort,
The Netherlands

TEL: +31 (0) 33 4698400
FAX: +31 (0) 33 4650615

Revision History

Version	Date	Context
V00	2014.03.11	Golden release
V01	2014.09.04	Add USB interface & Readable Symbologies modified

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A. General Description

The FI320 is a high performance, omni-directional area imager bar code scanner. It uses digital imaging technology to provide intuitive and fast reading of 1D and 2D bar codes as well as supporting more advanced features like image capture deactivation. It is designed for various built-in and OEM solutions, such as self-service kiosks, POS (Point-of-Sales) terminals, ATM, price checkers, healthcare and Mobile device solutions etc.

It supports up to 350mm 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 FI320 features scanning speeds two times faster than traditional 2D imagers.

FI320 is a high performance area imager scanner, provides customers with the most cost- effective solution in the market and perfectly suitable and definitely the best choice for any OEM and built-in application

Pb-Free (RoHS Compliant).



B. Physical Characteristics

Weight

Body weight	Approx. 3 oz (85 g)
Cable weight(USB)	Approx. 4.24 oz (120 g)

Material Polycarbonate

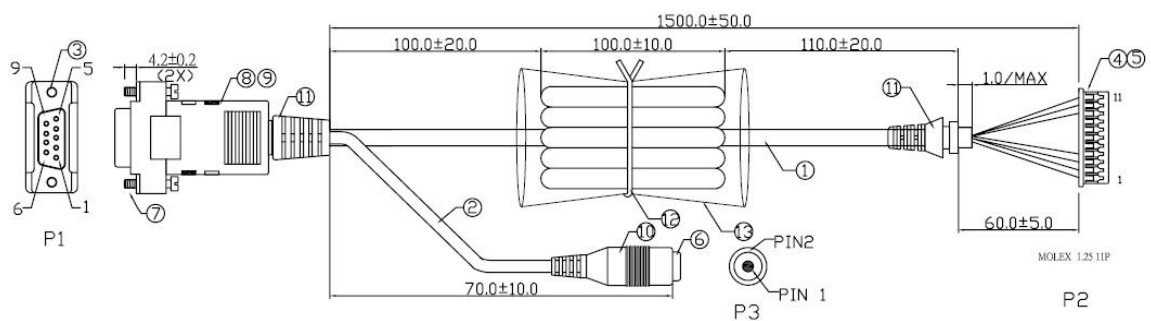
Cable Length 5FT. (150cm)

Dimension 56 mm W x 69 mm D x 28 mm H

1) Cable drawing

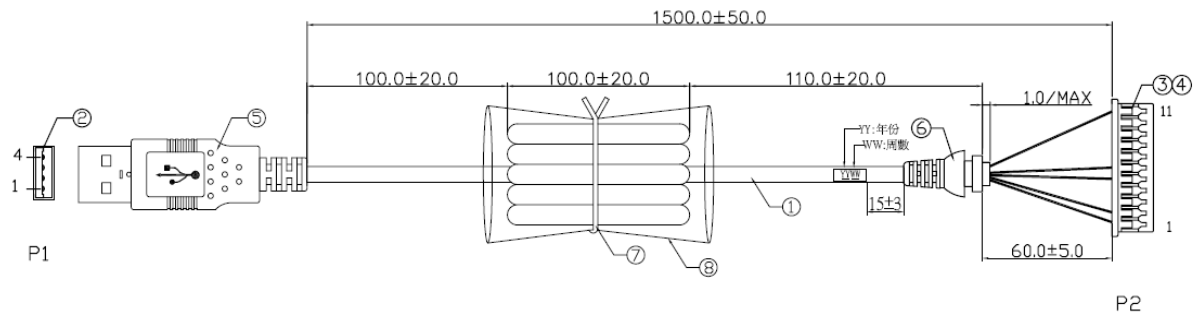
Unit : mm

(1)RS232



Pin Item					Description
P1	Color	P2	Color	P3	
9	Red	2	Red	1	VCC, +5V
3	Yellow	4			RXD
2	Orange	3			TXD
5	Brown	1	Brown	2	GND
8	Green	9			RTS
7	Blue	10			CTS
steel casing	wire-winding	11			SHIELDING

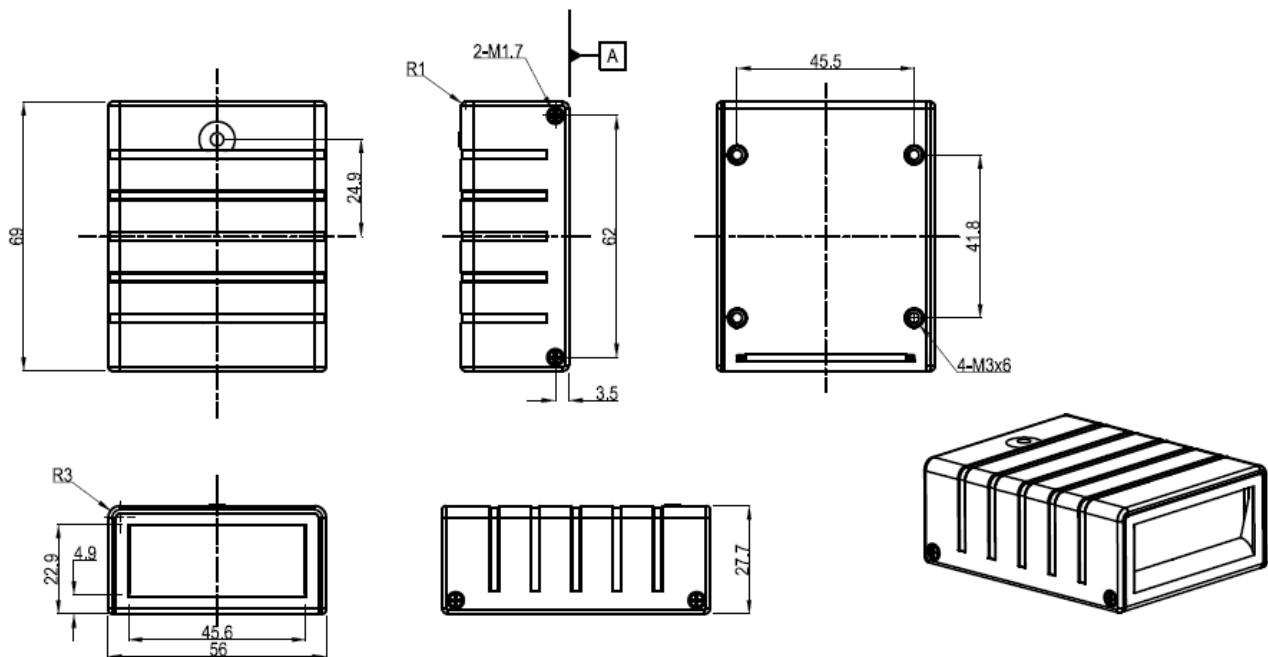
(2) USB(Virtual COM port)



Pin Item			Description
P1	Color	P2	
1	Red	2	VCC
2	Blue	6	D-
3	Green	5	D+
4	Brown	1	GND
steel casing	wire-winding	11	SHIELDING

2) Mechanical drawing

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.)	150 mA	150 mA
Operation (Typ.)	435 mA	435 mA

D. Performance

Light source	Visible Red light 650nm + 10nm
Scan rate	60 fps
Resolution	752 Horizontal x 480 Vertical pixels,
Scan angle	40° Horizontal, 25° Vertical
Interface	RS-232, USB (Virtual COM)

E. Environmental

Operating Temperature	0 °C to 50 °C (32 °F to 122 °F)
Storage Temperature	-20 °C to 70 °C (-4 °F to 158 °F)
Relative Humidity	20% to 95% (Non-condensing)
Ambient light	Works in any lighting conditions from 0 to 100,000 lux

F. Readable Symbologies

1D Symbologies	Readable	Default Enable
All UPC/EAN/JAN	V	V
EAN128 Code	V	
Code 39	V	V
Code 39 Full ASCII	V	
Code32 / Italian Pharmacy	V	
Code 128	V	V
Interleave 25	V	
Code 93	V	V

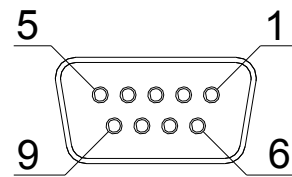
2D Symbologies	Readable	Default Enable
Data Matrix	V	V
PDF 417	V	V
Micro PDF 417	V	V
QR code	V	V
Micro QR code	V	V
Han XIN Code	V	
GM code	V	V

G. Pin Assignment

(a) RS232 Interface

DB 9 Female

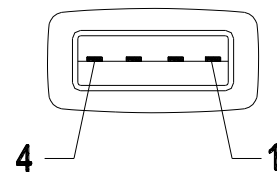
Pin No.	Function
2	TXD
3	RXD
5	GND
7	CTS
8	RTS
9	Vcc/+5V
Power Lead	Vcc/+5V



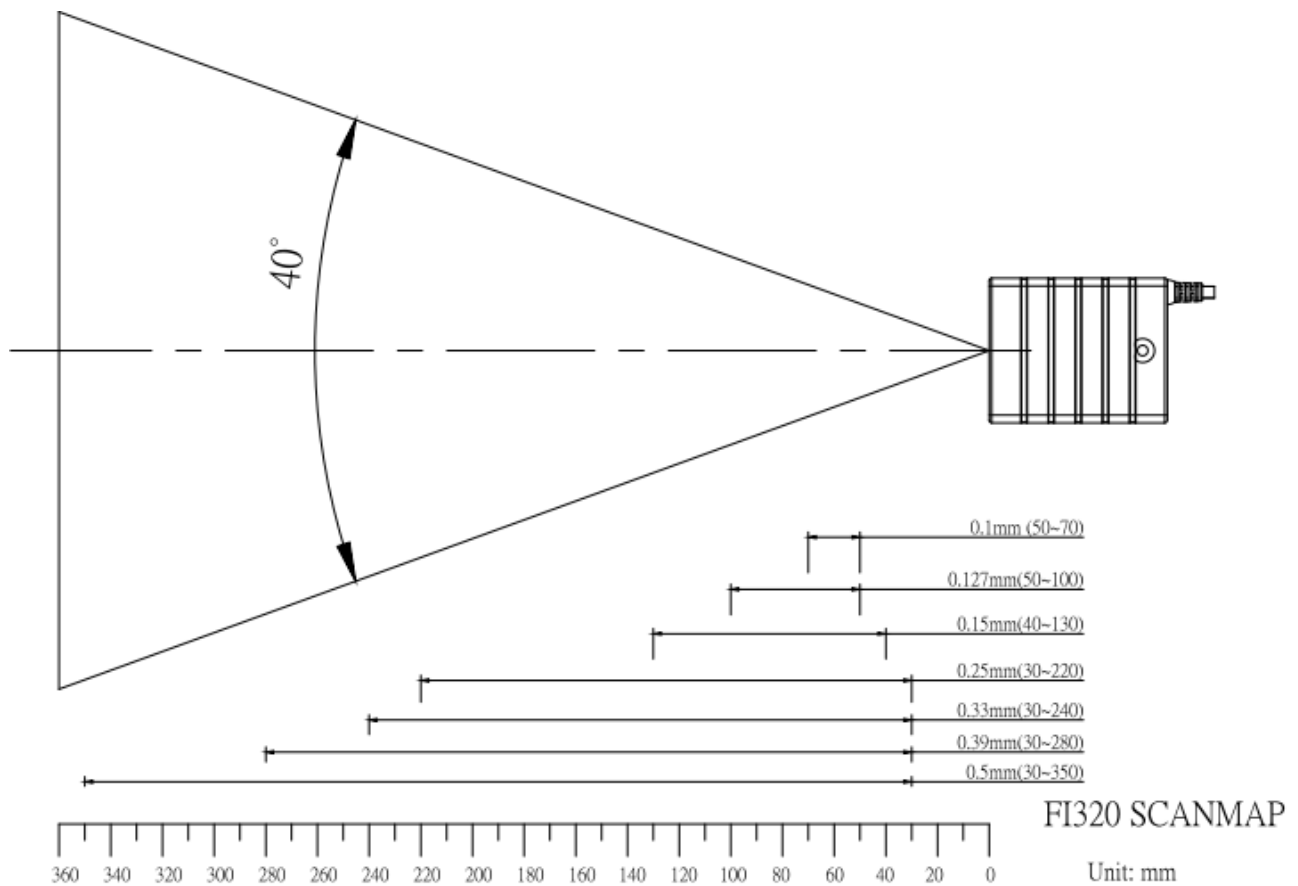
(b) USB Interface

USB A Type Male

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



H. Scan Map



I. Reliability

Life Time

MTBF(Calculated) 50,000 hours

Thermal Shock

High Temp. 60 °C (140 °F)

Low Temp. -20 °C (-4 °F)

Mechanical Shock 2000 G, 0.7 ms, half sinus, 3 axes

Vibration 8 G r.m.s., from 10 to 500 Hz, 2 hours per axis, 3 axes