

SPECIFICATION

Customer : _____

Customer's Model No. : _____

Model No. : **FI320**

Date : _____

Sample Serial No. : _____

Spec. Version & Revision Date: V01 2014.09.04

| |
|----------------------|
| Received/Approved by |
| |

CHAMPTEK[®]

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Revision History

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

TABLE OF CONTENTS

| | |
|------------------------------------|---|
| A. General Description | 1 |
| B. Physical Characteristics | 2 |
| C. Electrical Characteristics..... | 4 |
| D. Performance | 4 |
| E. Environmental..... | 4 |
| F. Readable Symbologies..... | 5 |
| G. Pin Assignment | 6 |
| H. Scan Map..... | 7 |
| I. Reliability..... | 7 |

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).



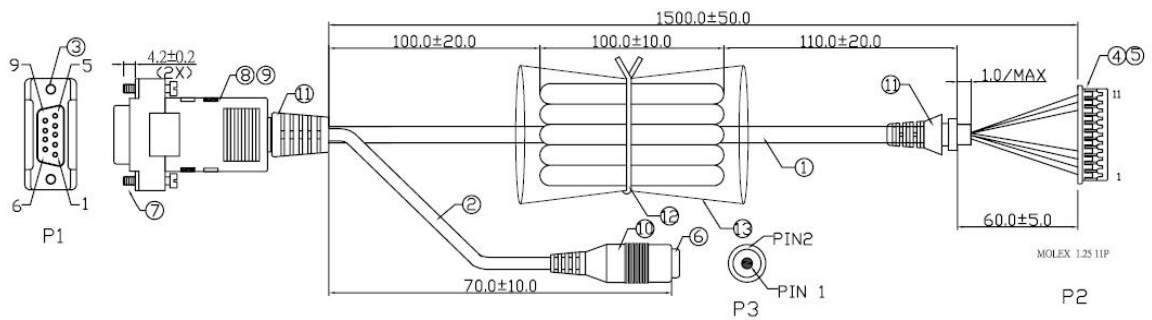
B. Physical Characteristics

| | |
|-------------------|-----------------------------|
| 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

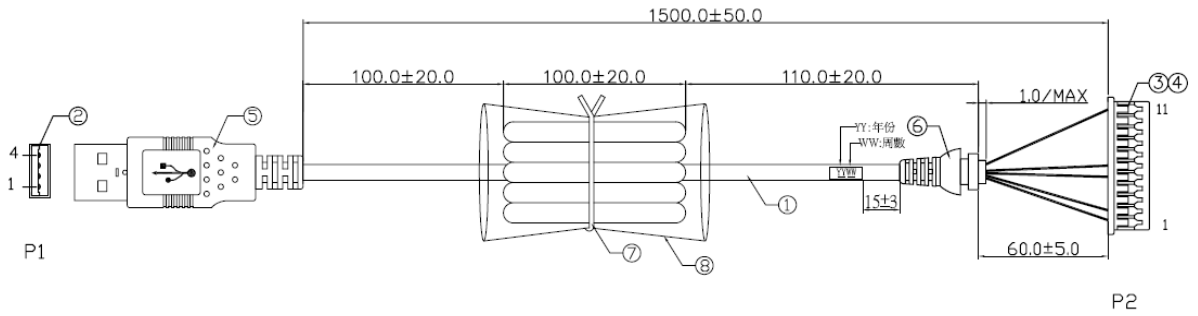
Unit : mm

(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 |

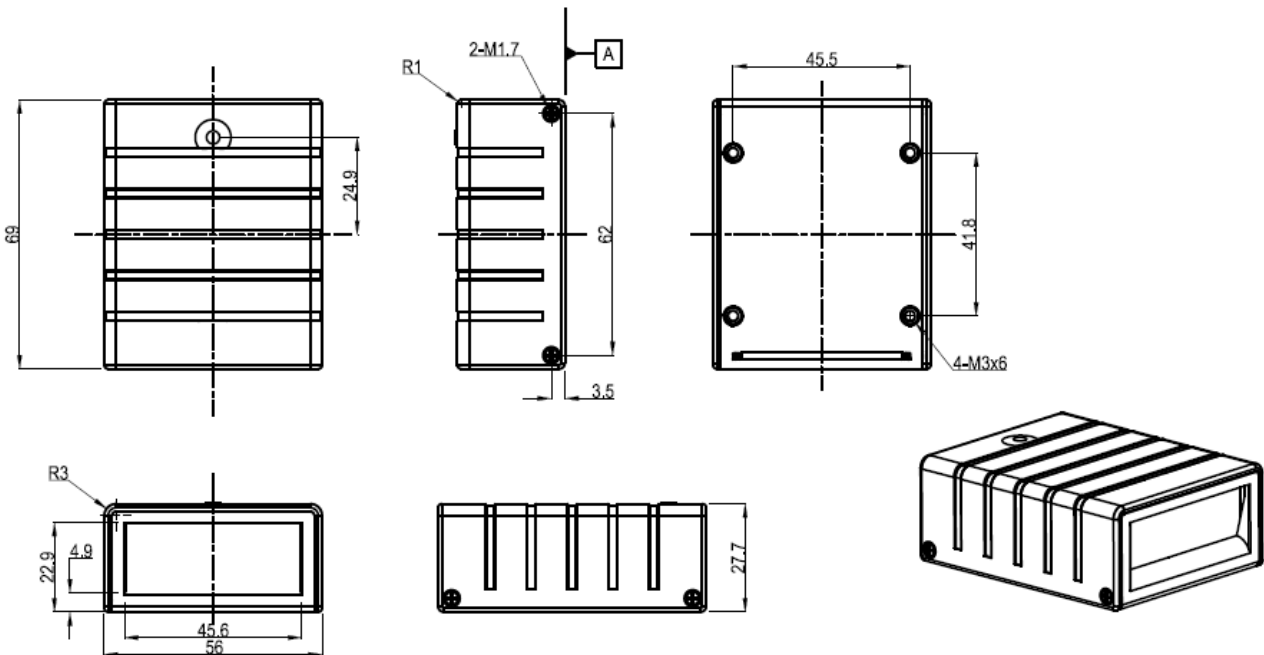
(2) USB(Virtual COM port)



| 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 |

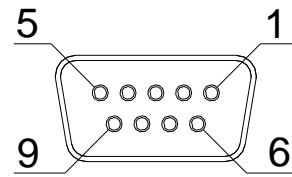
| 2D Symbologies | Readable | Default Enable |
|----------------|----------|----------------|
| Data Matrix | V | V |
| PDF 417 | V | V |
| Micro PDF 417 | V | V |
| QR code | V | V |
| Micro QR code | V | V |
| Han XIN Code | V | |
| GM code | V | V |

G. Pin Assignment

(a)RS232 Interface

DB 9 Female

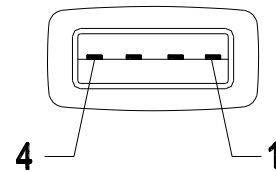
| Pin No. | Function |
|------------|----------|
| 2 | TXD |
| 3 | RXD |
| 5 | GND |
| 7 | CTS |
| 8 | RTS |
| 9 | Vcc/+5V |
| Power Lead | Vcc/+5V |



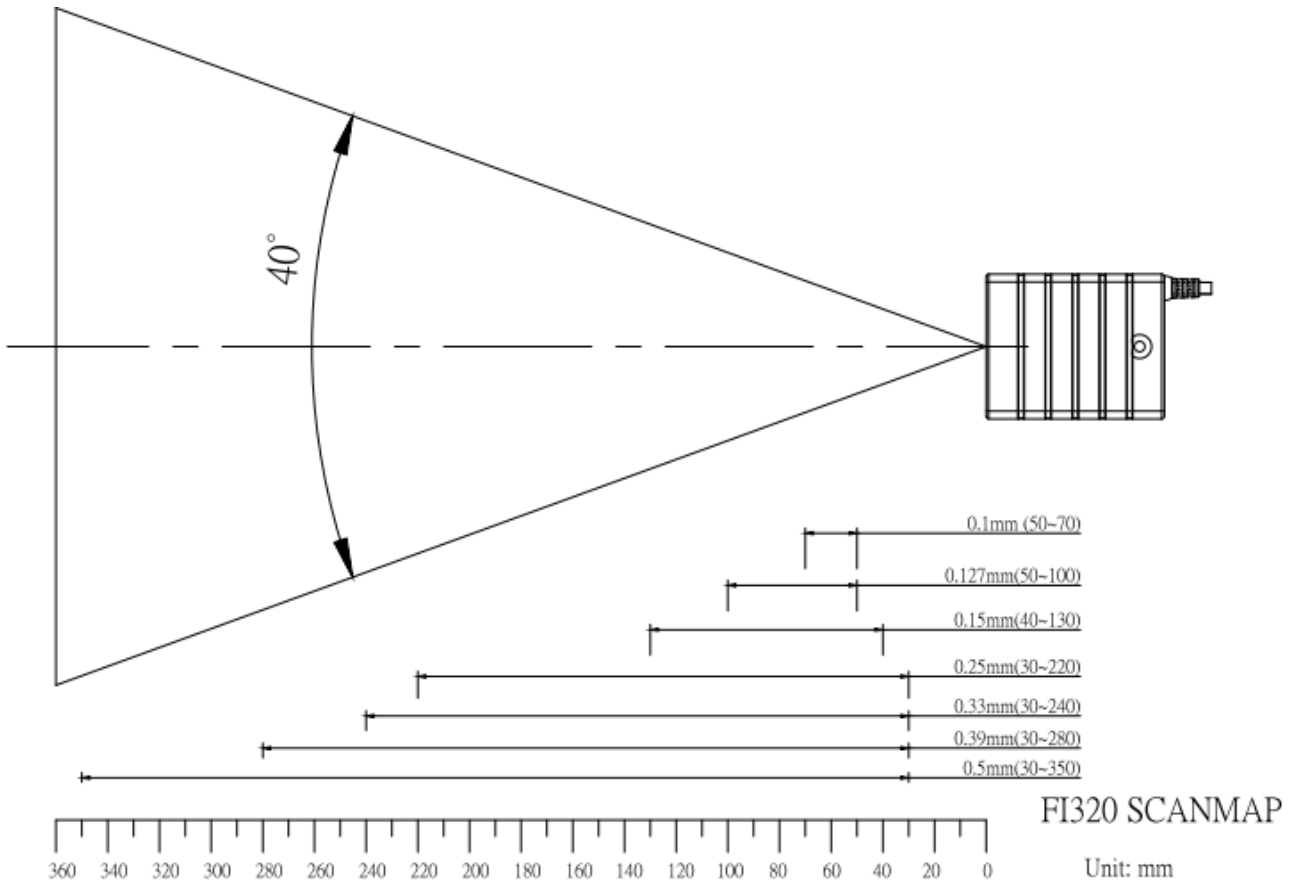
(b)USB Interface

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