FI310

FI310 Fixed Mount Area Imager Scanner

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General Description

The FI310 is equipped with ultra-compact high performance 2D area imager bar code scanning engine, ideal for OEM applications in devices including POS, medical devices, kiosks, lottery terminals and access control devices, a stand option can be ordered to facilitate desktop hand-free reading options.

The FI310 supports with up to 500mm reading depth of 1D and 2D bar codes, scan rate is up to 120 scans per second in linear emulation and 60 images per second in 2D area mode. It combines decode speed with unmatched motion tolerance to deliver an easy to use scanner with aggressive performance and offers uncompromised performance on current linear barcodes' applications, it can emulate the operation as a linear imagers with scan rates up to 120 scans per second when decodes linear barcodes, which is more than three times faster than traditional 2-D imagers.

Everything has been done to simplify the integration of the FI310, compact size, multiple mounting possibilities and multiple interfaces selection, such as standard RS232 & USB-HID and USB Virtual COM port.

The FI310 is built to match the most demanding scanning requirements, providing consistent scanning performance in total darkness to full sunshine and over a large temperature range.
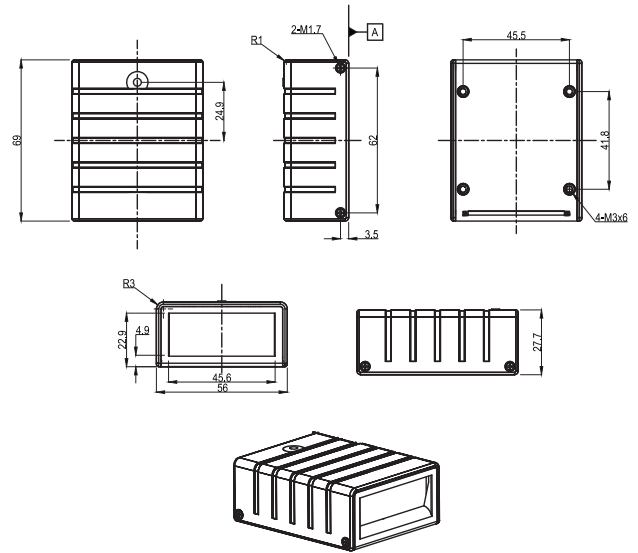
Features

- Miniature imager provides comprehensive data captures.
- Easily integrated with various OEM application while 1D and 2D barcode scanning.
- Clear aiming frame that make barcode capture easily.
- Center decoding utility to eliminate the need to position items precisely.
- Lightweight and compact design is flexible for external application requirement.

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Reading Range

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

Specifications

- **Physical Characteristics**

  Weight

Body weight	Approx. 3 oz(85 g)
Cradle weight(USB)	Approx. 4.24 oz(120 g)
Material	Polycarbonate
Cable Length	5FT.(150cm)
Dimension	56 mm W x 69 mm D x 27.7 mm H

- **Electrical Characteristics**

Interface	RS232	USB-HID (or Virtual COM port)
	DC Adaptor	USB Power
Supply Voltage	DC +5V±5%	DC +5V±5%
Current Draw	±10%	±10%
Power On (Typ.)	800mA	800mA
Stand by (Typ.)	80mA	80mA
Operation (Typ.)	270mA	270mA

- **Environmental**

Operating Temp.	-20°C to 60°C (-4°F to 144°F)
Storage Temp.	-30°C to 70°C (-22°F to 158°F)
Relative Humidity	5% to 95% (Non-condensing)
Ambient light	Works in any lighting conditions from 0 to 100,000 lux

- **Performance**

Light source	Visible red light 625nm LED
Scan Speed	120 scans per second in 1D mode 60 images per second in 2D mode
Resolution	752 (H) x 480 (V) pixels Horizontal - 40°, Vertical - 25°
Pitch	±60° (from front to back)
Skew	±60° (from plane parallel to symbol(side- to-side))
Roll	360°
Interface	RS-232, USB (HID KBW or Virtual comport)
Indicators	Good read beep

- **Reliability**

  Life Time

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
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

Due to Champtek's / Scantech ID's continuing product improvement programs, specifications and features are subject to change without notice.