

SPECIFICATION

Customer : _____

Customer's Model No. : _____

Model No. : **MIR4D Module**

Date :2018.08.24

Product P/N. : _____

Spec. Version & Revision Date: V00 2018/08/24

Received/Approved by

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Revision History

Version	Date	Context
V00	2018.08.24	Released

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

A. General Description

The MIR4D module 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 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 MIR4D Module features scanning speeds two times faster than traditional 2D imagers.

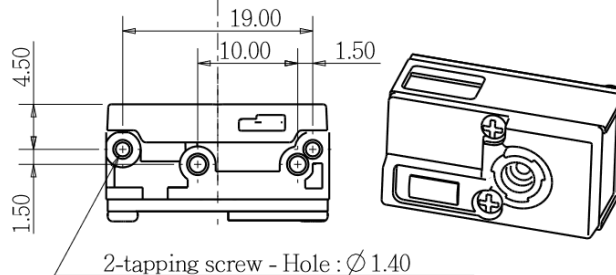
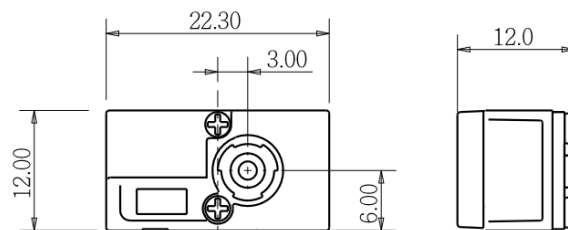
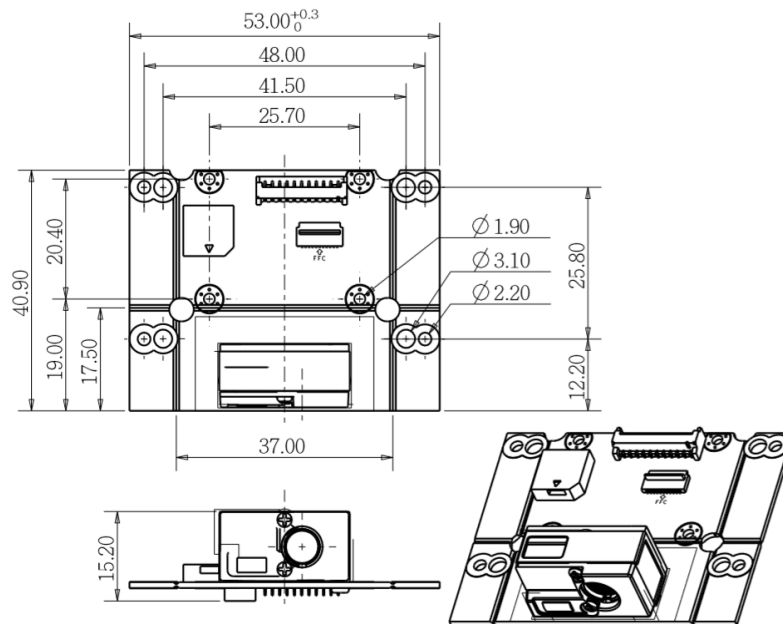
MIR4D Module is a high performance area imager scanner, provides customers with the most cost- effective solution in the market and perfectly suitable and definitely the best choice for any OEM and built-in application.

B. Physical Characteristics

Weight	
Body weight	Approx. 0.098 oz (2.8 g)
Material	
	Polycarbonate
Connector	
	11 pin Pitch 1.25
Dimension	
	53.0mm (H) x 40.9mm (W) x 14.9mm (D)

Mechanical drawing

Unit: mm



C. Electrical Characteristics

Interface	USB/RS232
Supply Voltage	DC +5V \pm 5%
Stand by (Typ.)	180mA
Operation (Typ.)	380mA

D. Performance

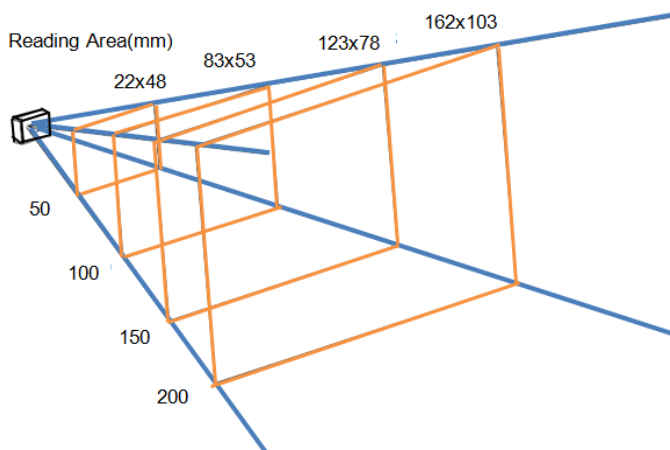
Light Source	White light LED
Sensor	752(H) x 480 (V) pixels (full resolution)
Field of view	Horizontal – 40°, Vertical – 25°
Scan Rate	60 fps
Reading Distance	220mm@20mil/0.5mm, PCS90%
Print Contrast Ratio	PCS45%@5mil/0.127mm
Resolution	3mil/0.076mm@PCS90% Code39, 10mil/.26mm@PCS90% QRCode
Reading Angle	<i>Test Conditions : Code 39, 10mil/0.25mm,PCS90%</i>
Pitch Angle	5°~60° (\pm 5°)
Skew Tolerance	5°~60° (\pm 5°)
Ambient Light	100,000 Lux Max.

E. Depth of field

Barcode	Depth of field
3mil Code39	60~ 80 mm
4mil Code39	50~ 110 mm
5mil Code39	50~120 mm
6mil Code39	50~140 mm
20mil Code39	70~220 mm
20mil QR Code	70~170 mm
10mil PDF417	60~140 mm
20mil PDF417	70~170 mm
20mil Data Matrix	70~170 mm

Note:

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



F. Environmental

Operating Temperature 0 °C to 50 °C (14 °F to 122 °F)

Storage Temperature -20 °C to 70 °C (-4 °F to 158 °F)

Relative Humidity 5% to 95% (Non-condensing)

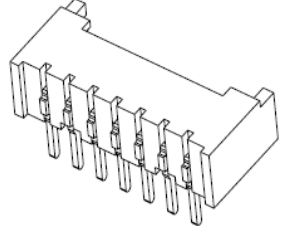
G. Readable Symbologies

1D Symbologies	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 Expended	V	

2D Symbologies	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. Decoder Data Output Connector

Pin No.	Function
1	GND
2	VCC
3	TXD
4	RXD
5	USB+
6	USB-
7	Trigger
8	ID
9	RTS
10	CTS
11	SHIELDING



I. Reliability

Life Time	
MTBF(Calculated)	50,000 hours
Thermal Shock	
High Temp.	60 °C (140 °F)
Low Temp.	-20 °C (-4 °F)
Cycle time	30 minutes for high temp. , 30 minutes for low temp.
Cycles	24 cycles
Mechanical Shock	2000G, 0.7ms, 3 axes