

SPECIFICATION

Customer : _____

Customer's Model No. : _____

Model No. : **MIR3+ Module**

Date :2016.09.29

Product P/N. : _____

Spec. Version & Revision Date: E01 Draft 2016/09/29

Received/Approved by

CHAMPTEK[®]

ChampTek Incorporated

5/F, No. 2, Alley 2, Shih-Wei Lane, Chung Cheng Rd.,

Hsin Tien District, New Taipei City, Taiwan, R.O.C.

Web : <http://www.champtek.com>

Tel : 886-2-22192385

E-mail : sales@champtek.com

Fax : 886-2-22192387

Revision History

Version	Date	Context
E00 Draft	2016.09.14	Draft release
E01 Draft	2016.09.29	Drawing Modified

TABLE OF CONTENTS

A. General Description	1
B. Physical Characteristics	2
C. Electrical Characteristics.....	3
D. Performance	3
E. Depth of field	4
F. Environmental	4
G. Readable Symbologies	5
H. Decoder Data Output Connector	6
I. Reliability.....	6

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

A. General Description

The MIR3+ 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 300mm 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 MIR3+ Module features scanning speeds two times faster than traditional 2D imagers.

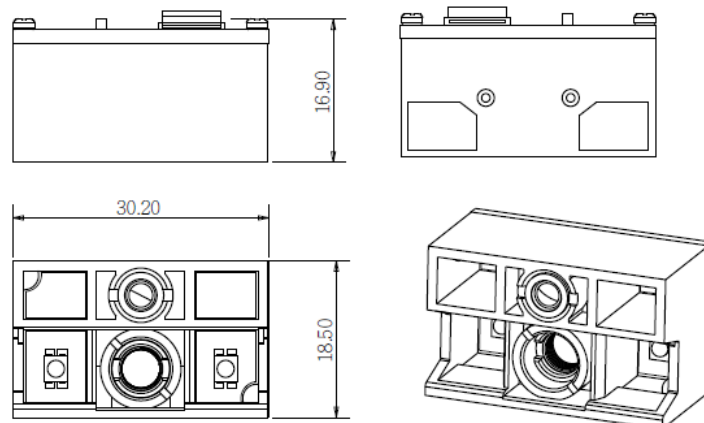
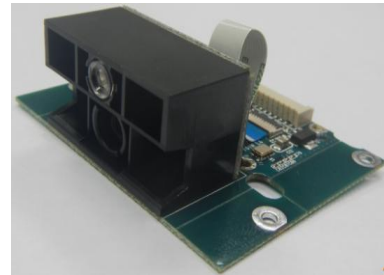
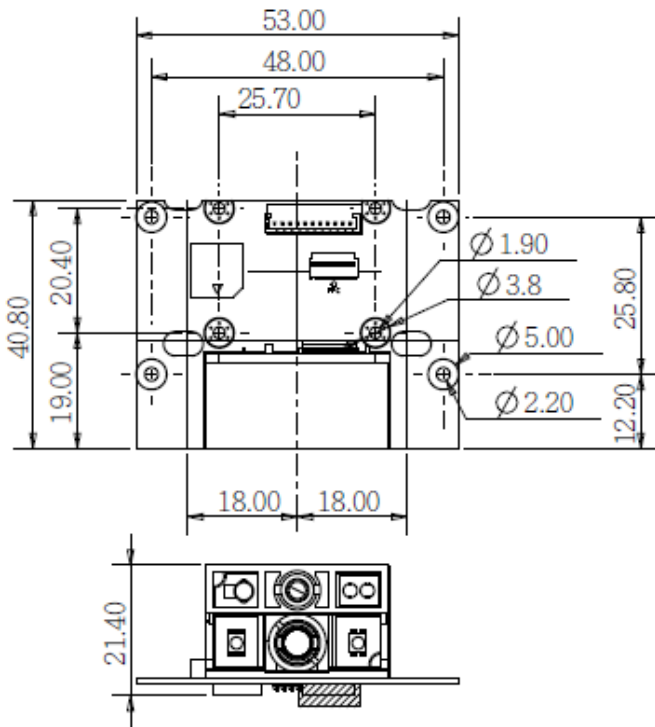
MIR3+ Module is a high performance area imager scanner, provides customers with the most cost- effective solution in the market and perfectly suitable and definitely the best choice for any OEM and built-in application.

B. Physical Characteristics

Weight	
Body weight	Approx. 0.67 oz (19.2 g)
Material	
	Polycarbonate
Connector	
	11 pin Pitch 1.25
Dimension	
	53.0mm H x 40.8mm W x 21.4mm D

Mechanical drawing

Unit : mm



C. Electrical Characteristics

Interface	USB/RS232
Supply Voltage	DC +5V \pm 5%
Stand by (Typ.)	150mA
Operation (Typ.)	360mA

D. Performance

Light Source	Visible Red light 632nm LED
Sensor	752 (H) x 480 (V) pixels
View of filed	Horizontal – 40°, Vertical – 25°
Processor Type	DSP Processor
Frame Rate	60 fps (at full resolution)
Reading Distance	300mm@20mil/0.5mm, PCS90%
Print Contrast Ratio	PCS45%@5mil/0.127mm
Resolution	4mil/0.1mm@PCS90% Code39, 10mil/.26mm@PCS90% QRCode
Reading Angle	
Pitch Angle	5°~60° (\pm 5°)
Skew Tolerance	5°~60° (\pm 5°)
Roll	360°
Ambient Light	100,000 Lux Max.

E. Depth of field

Barcode mil	Depth of field
0.1 mm	40~ 70 mm
0.127 mm	40~ 90 mm
0.15 mm	50~100 mm
0.26 mm	50~230 mm
0.33 mm	50~250 mm
0.39 mm	50~270 mm
0.5 mm	50~300 mm

F. Environmental

Operating Temperature -10 °C to 60 °C (14 °F to 140 °F)

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

Relative Humidity 20% to 95% (Non-condensing)

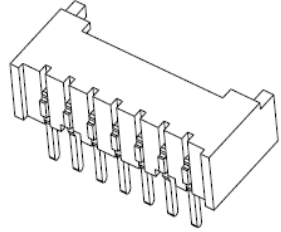
G. Readable Symbologies

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
Interleaved 25	V	
Industrial 25	V	V
Matrix 25	V	V
Codabar/NW7	V	V
Code 93	V	V
China Post	V	V
MSI/Plessey	V	V
Telepen	V	V
GS1 Databar	V	V
Omnidirectional		
GS1 Databar Limited	V	
GS1 Databar Expanded	V	V

2D Symbologies	Readable	Default Enable
Aztec	V	V
Aztec Mesas	V	V
Data Matrix	V	V
Maxi Code	V	V
PDF 417	V	V
Micro PDF 417	V	V
QR Code	V	V
Micro QR Code	V	V
GM Code	V	V
Han Xin Code	V	

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