SPECIFICATION

Customer :

Customer's Model No. :

Model No. : **MIR3+ Module**

Date :2017.08.01

Product P/N. :

Spec. Version & Revision Date: V00 2017/08/01

Received/Approved by

CHAMPTEK®

Web : http://www.champtek.com
E-mail : sales@champtek.com

ChampTek Incorporated
5/F, No. 2, Alley 2, Shih-Wei Lane, Chung Cheng Rd.,
Hsin Tien District, New Taipei City, Taiwan, R.O.C.
Tel : 886-2-22192385
Fax : 886-2-22192387

Revision History

Version	Date	Context
V00	2017.08.01	Release

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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 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.

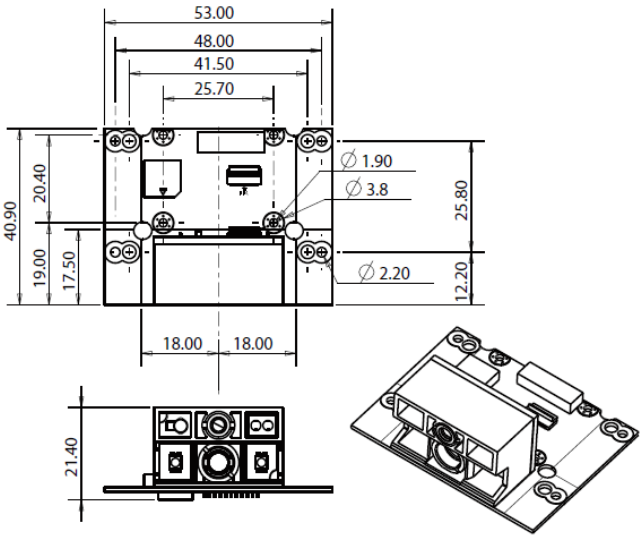
MIR3+ Module is a high performance area imager scanner, provides customers with the most cost- effective solution in the market and perfectly suitable and definitely the best choice for any OEM and built-in application.

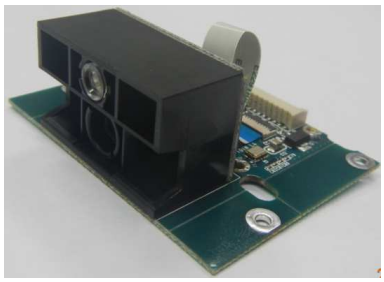
B. Physical Characteristics

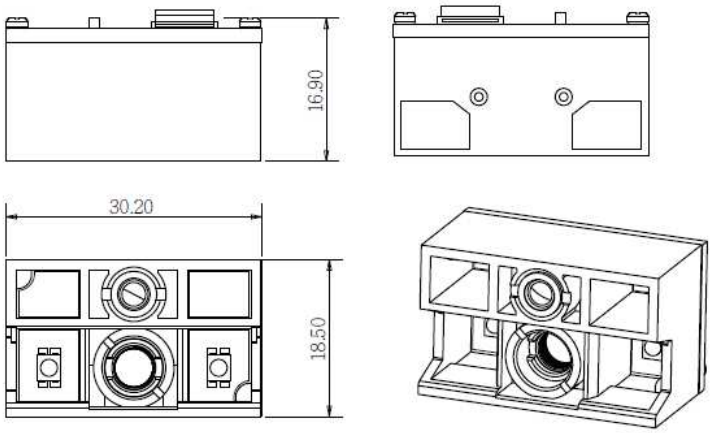
Weight	
Body weight	Approx. 0.67 oz（19.2 g）
Material	Polycarbonate
Connector	11 pin Pitch 1.25
Dimension	53.0mm H x 40.9mm W x 21.4mm D

Mechanical drawing

Unit: mm







C. Electrical Characteristics

Interface	USB/RS232
Supply Voltage	DC +5V ±5%
Stand by (Typ.)	180mA
Operation (Typ.)	360mA

D. Performance

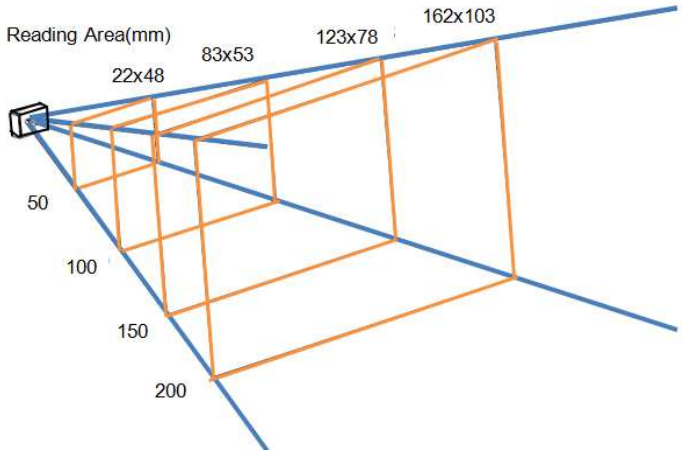
Light Source	Visible Red light 625nm(±5nm) LED
Sensor	752 (H) x 480 (V) pixels
Field of view	Horizontal – 40°, Vertical – 25°
Scan Rate	60 fps (at full resolution)
Reading Distance	300mm@20mil/0.5mm, PCS90%
Print Contrast Ratio	PCS45%@5mil/0.127mm
Resolution	4mil/0.1mm@PCS90% Code39, 10mil/.26mm@PCS90% QRCode
Reading Angle	*Test Conditions : Code 39, 10mil/0.25mm,PCS90%*
Pitch Angle	5°~60° (±5°)
Skew Tolerance	5°~60° (±5°)
Ambient Light	100,000 Lux Max.

E. Depth of field

Barcode	Depth of field
4mil Code39	40~ 80 mm
5mil Code39	40~110 mm
6mil Code39	40~120 mm
10mil Code39	40~180 mm
13mil Code39	30~250 mm
20mil Code39	30~300 mm
20mil QR Code	40~180 mm
10mil PDF417	35~120 mm
20mil PDF417	50~150 mm
20mil Data Matrix	50~240 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	20% to 95% (Non-condensing)

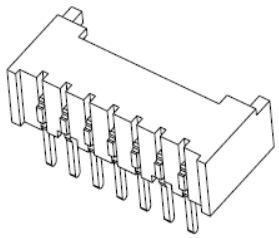
G. Readable Symbologies

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	
Matrix 25	V	
Codabar/NW7	V	
Code 93	V	
China Post	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	Optional	
Aztec Mesas	Optional	
Data Matrix	V	V
Maxi Code	Optional	
PDF 417	V	V
Micro PDF 417	Optional	
QR Code	V	V
Micro QR Code	Optional	
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.	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	2000G, 0.7ms, 3 axes