

SPECIFICATION

Customer : _____

Customer's Model No. : _____

Model No. : **MIR3**

(including interface PCBA and button PCBA)

Date :2014.06.13

Product P/N. : _____

Spec. Version & Revision Date: V00 2014/06/13

Received/Approved by

CHAMPTEK[®]

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Revision History

Version	Date	Context
V00 Draft	2013.06.13	Golden 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 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 MIR3 features scanning speeds two times faster than traditional 2D imagers.

MIR3 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. 0.70 oz (19.8 g)
Connector	Molex 11pin P=1.25 90 degree

Mechanical drawing

Unit : mm

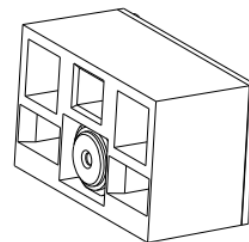
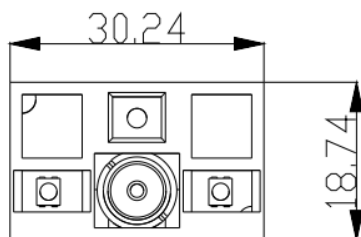
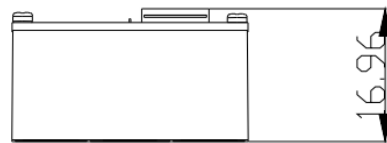
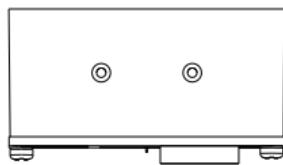


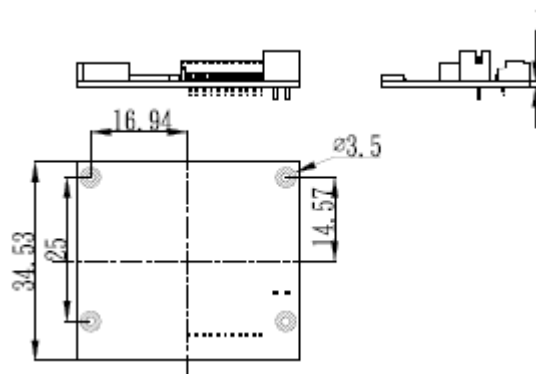
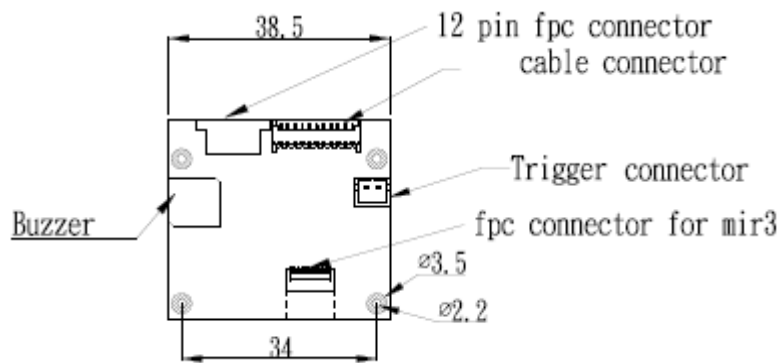
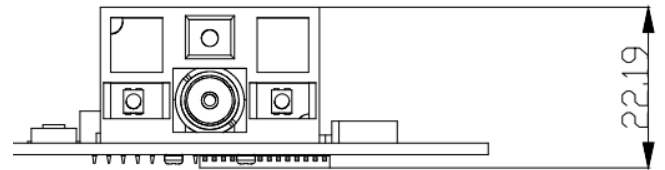
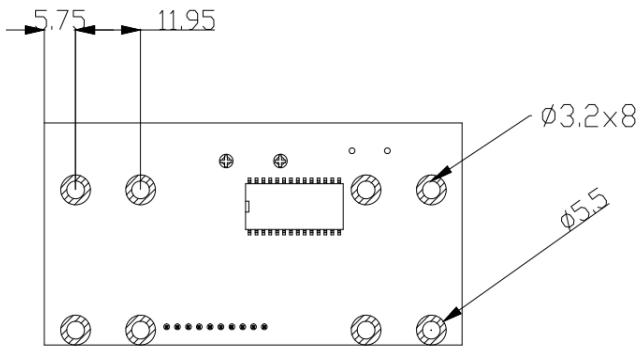
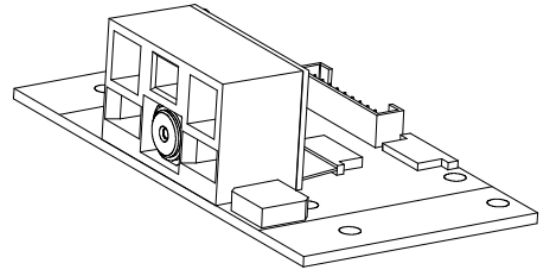
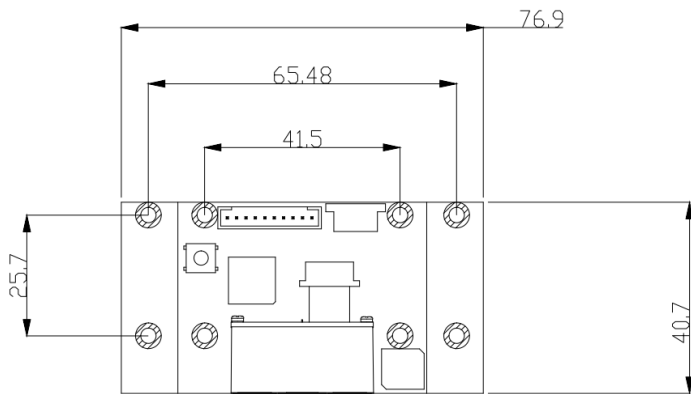
TTL PCBA

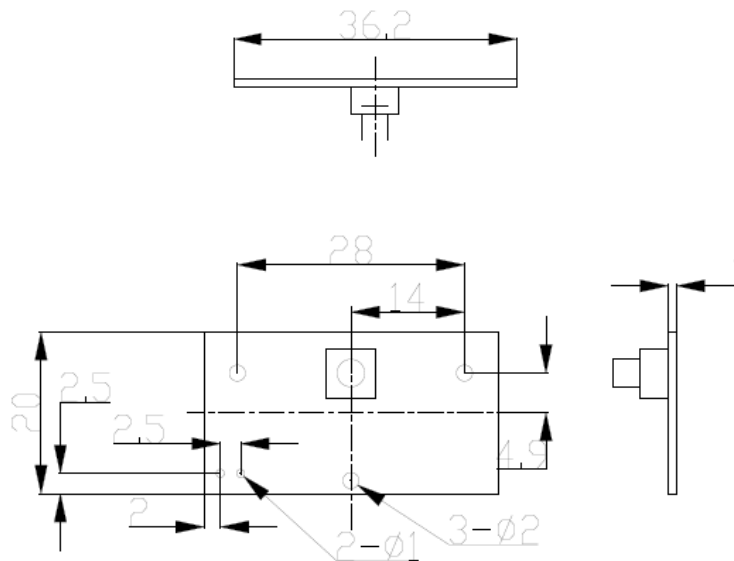
Decoder PCBA

Interface PCBA

Button PCBA







C. Electrical Characteristics

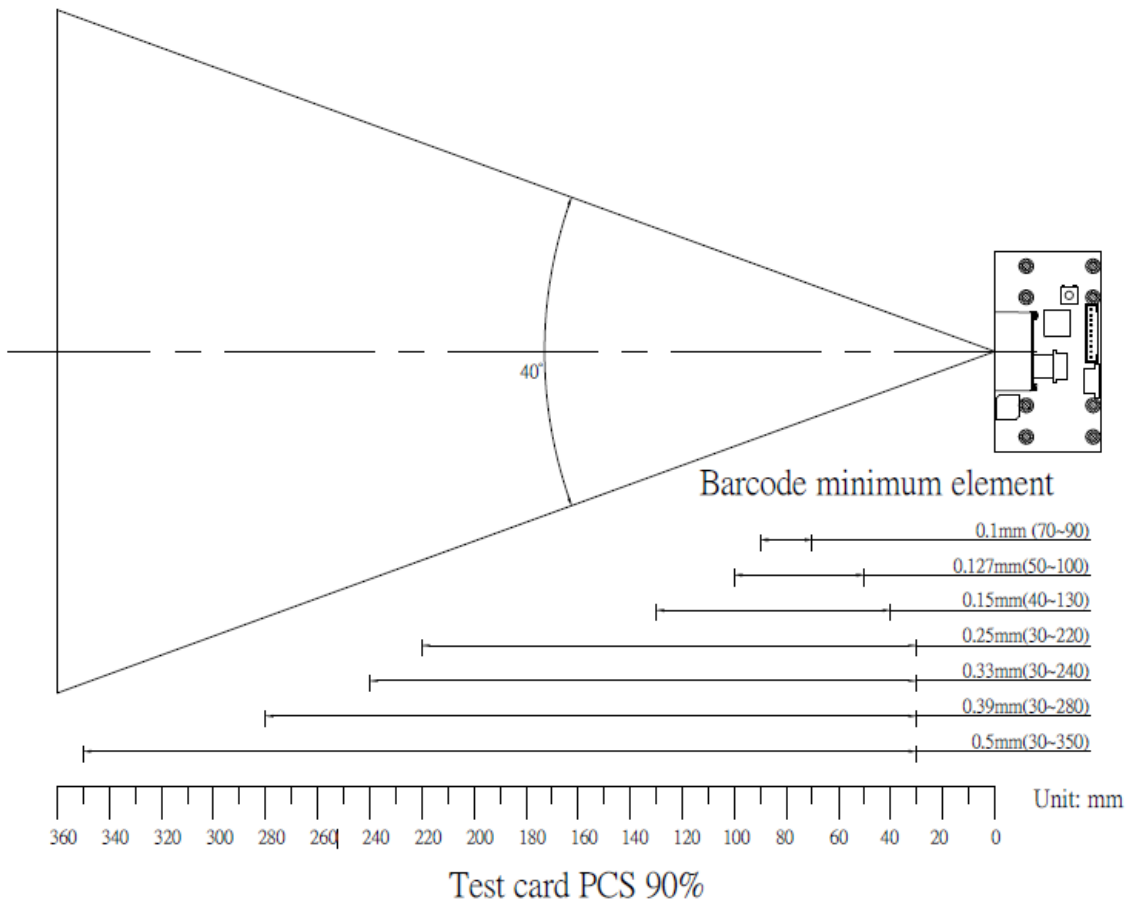
Interface	RS-232, USB (HID), USB (Virtual com port) optional
Supply Voltage	DC +5V \pm 5%
Output Voltage (Typ.)	\pm 9V
Output low Voltage (Max.)	0.7V
Current Draw	\pm 10%

Stand by (Typ.)	150mA
Operation (Typ.)	420mA

D. Performance

Light Source	Visible Red light 617 nm LED
Sensor	752 (H) x 480 (V) pixels
View of filed	Horizontal – 40°, Vertical – 25°
Processor Type	DSP Processor
Operating Freq.	27 MHz (Internal)
Frame Rate	60 fps (at full resolution)
Reading Distance	350mm@20mil/0.5mm, PCS90%
Print Contrast Ratio	PCS45%@5mil/0.127mm
Resolution	4mil/0.1mm@PCS90% Code39, 10mil/.26mm@PCS90% QRCode
Reading Angle	<i>Test Conditions : Code 39, 10mil/0.25mm,PCS90%</i>
Pitch Angle	5°~60° (±5°)
Skew Tolerance	5°~60° (±5°)
Ambient Light	100,000 Lux Max.

E. Scan Map



F. 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)

G. 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
MicroQR code	V	V
Han XIN code	V	
GM code	V	V

H. Decoder Data Output Connector

Type	JAE 10pin Pitch 2.0
Pin No.	Function
1	Vcc(+5V)
2	NA
3	NA
4	RXD
5	TXD
6	NA
7	NA
8	GND
9	RTS
10	CTS

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