MIR31
2D Barcode Scanning module

Introduction

The MIR31 module is an omni-directional 2D barcode embedded scanning module with white illumination and leading CMOS image recognition technology and intelligent image recognition system. It can scan universal 1D 2D codes, support USB, TTL multiple interfaces, read the paper, goods, screens, other media barcodes.

With the MIR31, you can easily embedded in products that will make a difference for your customers – and their customers. It is designed for various built-in and OEM solutions, such as self-service kiosks, POS(Point-of-Sales) terminals, price checkers and mobile device solutions, etc.

Features

- Support mainstream 1D, 2D codes, GS1 databar.
- Good performance on reading both display and printed label barcode.
- Mini size, widely used in wireless machine and self-service, vending kiosks.
- A variety of optional interfaces USB-KBW, USB-COM, TTL interfaces for different application scenarios.
- High brightness, dark environment scanning, low power consumption.
- Support multiple systems, languages and secondary development.

MIR31

Barcode	Depth of field
0.1mm/4mil Code39	45 ~ 90 mm
0.25mm/10mil Code39	45 ~ 220 mm
1mm/40mil Code39	130 ~ 420 mm
0.33mm/13mil UPC/EAN	50 ~ 240mm
20mil QR Code	35 ~ 180 mm
10mil Data Matrix	30 ~ 95 mm
6.8mil PDF417	40 ~ 120 mm

The test is under ambient light 350 ~ 400 Lux.

Specifications

● **Physical Characteristics**

Weight	
Body weight	Approx. 3.5g
Interface Type	FPC 12PIN Pitch 0.5
FPC cable length	5cm
Dimension	22 L x 14.6 W x 11.3 H (mm)

● **Electrical Characteristics**

Operating Voltage	DC 3.3V ±5%
Current Draw	
Operation (Typ.)	180 mA
Stand by (Typ.)	60 mA

● **Performance**

Light Source	White light illumiation
Sensor	640 x 480 pixels
Field of view	Horizontal – 36°, Vertical – 28°
Motion tolerance	25cm per second
Reading Distance	240 mm@13mil/0.33mm, PCS90%, UPC/EAN
Print contrast ratio	≥25%
Resolution	1D: ≥4mil/0.1mm（PCS90%,CODE 39） 2D: 8mil/0.2mm QR Code
Scan mode	Manual, Auto sense, Continuous
Reading Angle	
Pitch Angle	5°~50° (±5°)
Skew Tolerance	5°~50° (±5°)
Ambient Light	Dark environment, indoor natural light

● **Environmental**

Operating Temperature	-20 °C to 50 °C (-4 °F to 122 °F)
Storage Temperature	-40°C to 60 °C (-40°F to 140 °F)
Relative Humidity	5% to 95% (Non-condensing)
Drop resistance	1.2m

● **Readable Symbologies**

1D Symbologies
UPC-A，UPC-E，EAN-8，EAN-13，Code 128， Code 39，Code 93，
Interleaved 2 of 5，Matrix 2 of 5，Industrial 2 of 5，Standard 2 of 5(IATA25) ，
Codabar（NW-7）

2D Symbologies
QR Code, Micro QR Code, Data Matrix，PDF417