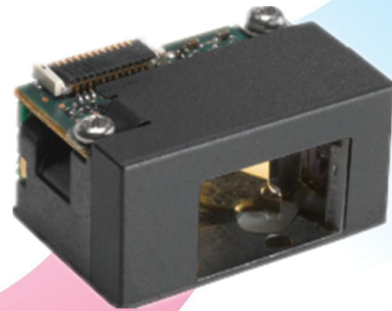


MZ-L101

One-dimensional laser module

- Comprehensive reading ability
 - Low power design compatible with all kinds of devices
 - Humanized light source
 - Powerful data editing capabilities
 - Reliable and durable structure design



Product Features

Comprehensive reading ability

Can read paper codes with a density of more than 4mil and direct component bar codes.

Low power design compatible with all kinds of devices

The low power design of the device can minimize the connection problems caused by factors such as insufficient USB drive capacity of the host or excessive voltage requirements of the access device, and maximize the compatibility of the device.

Powerful data editing capabilities

Powerful data editing function can flexibly meet all kinds of data editing requirements.

Reliable and durable structure design

It can withstand repeated falls from a height of 60cm to the concrete floor, making the product have excellent reliability and stability.

Humanized light source

The red laser light source can not produce visual fatigue under continuous high intensity working conditions, and greatly improve the working efficiency.

MZ-L101

One-dimensional laser module

1. Technical Parameter

Electrical Character

| | |
|-----------------|------------|
| Data interface | TTL |
| Working voltage | DC3.3V±10% |
| Working current | 78mA |

Optical Property

| | |
|--------|------------------------------------|
| Sensor | Visible laser, wavelength 650±10nm |
|--------|------------------------------------|

Performance Characteristic

| | |
|---------------------|--|
| Reading angle | Tilt : ±65° ; Shifting : ±40° ; Rotate : ±35° |
| Reading accuracy | 4mil/0.102mm |
| Min print contrast | > 25%UPC/EAN 13(13mil) |
| Scanning rate | 104 fps |
| Curvature | R > 15mm (EAN8) , R > 20mm (EAN13) |
| Decoding capability | UPC/EAN,Code128,Code39,Code93,Code11,Interleaved2of5,Discrete 2of5,Chinese 2of5,Codabar,MSI,GS1 DataBar, Data Options, Serial Interface, Event Reporting |

Physical Characteristics

| | |
|---------------|-----------------------|
| Physical size | 15.2mm*21.6mm*11.75mm |
| Weight | 7.5g |

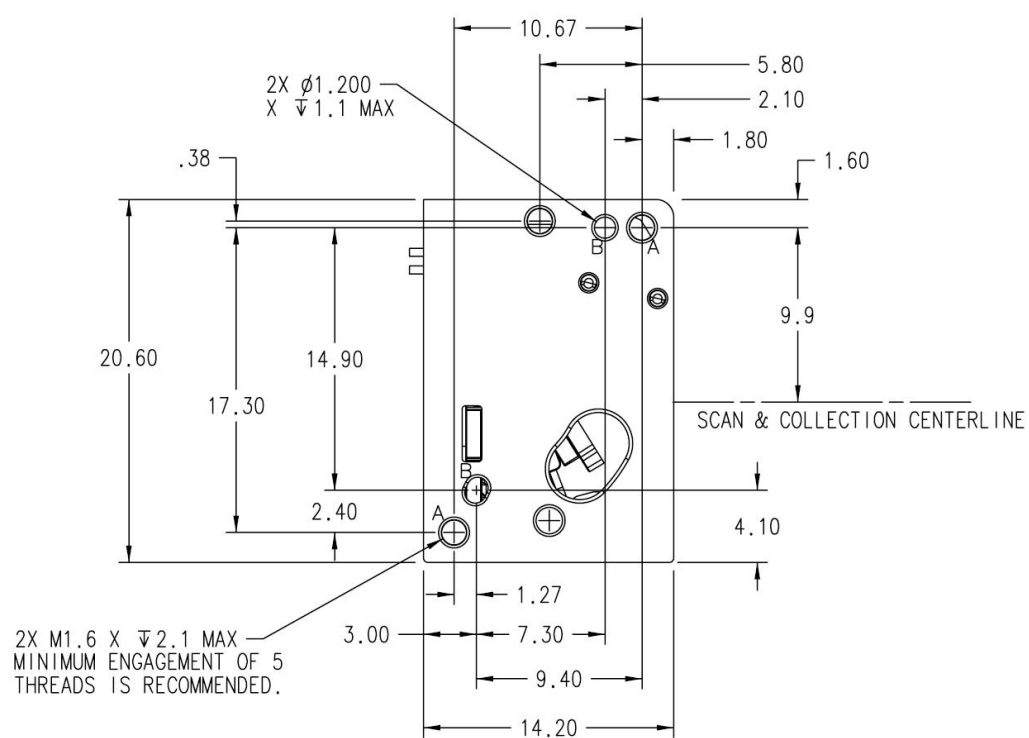
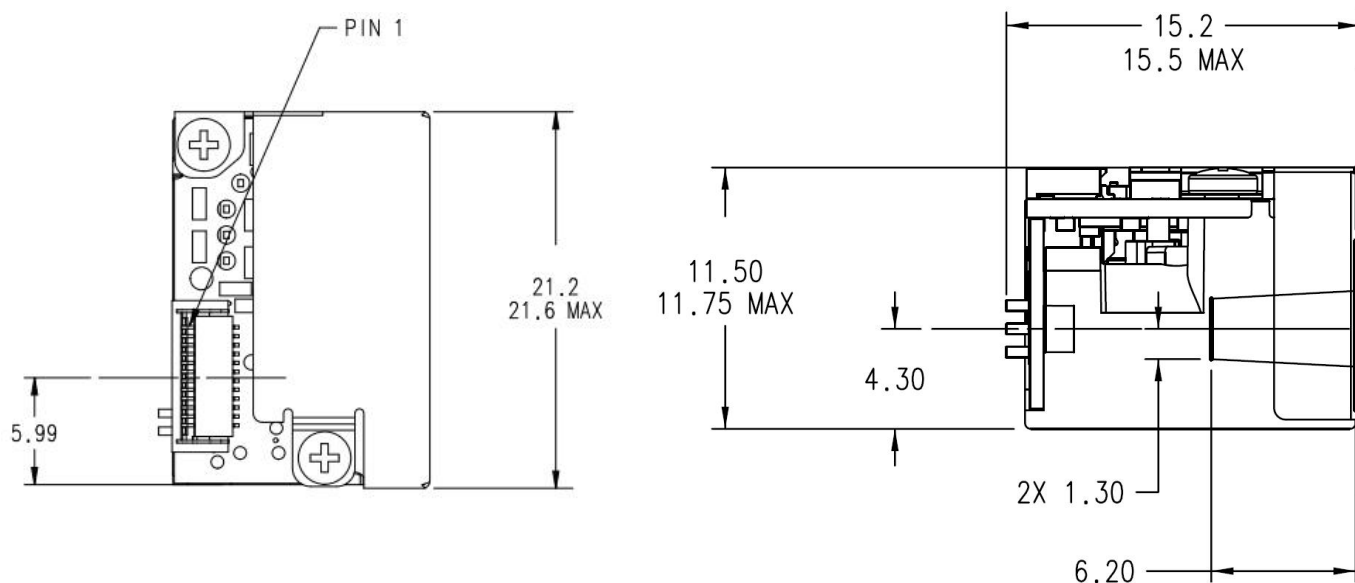
Environmental Character

| | |
|-----------------|--|
| Temperature | -30°C-60°C (Work) , -40°C-70°C (Storage) |
| Humidity | 5%~95% |
| Seismic ability | Fell from a distance of 60CM to the concrete surface several times |

Decoding the depth of field table

| Barcode type | Barcode density | Bar code digits | Barcode content | Neares | Farthest |
|--------------|-----------------|-----------------|-----------------|--------|----------|
| codabar | 9mil | 9 | 123456789 | 2.3cm | 57.5cm |
| codabar | 9mil | 10 | 1234567890 | 2.6cm | 58.0cm |
| Code39 | 7.5mil | 6 | ABCDEF | 1.5cm | 49.5cm |
| Code39 | 11mil | 6 | ABCDEF | 2.5cm | 70.0cm |
| Code39 | 16mil | 6 | ABCDEF | 4.3cm | 88.5cm |
| Code128 | 11mil | 6 | ABCDEF | 2.1cm | 56.7cm |
| Code128 | 16mil | 6 | ABCDEF | 3.4cm | 82.0cm |

2. Product Size



3.Definition of PIN

| Number | Name | Type | Instruction |
|--------|------------|------|--|
| 1 | Flash Down | I | Program download: when the system is powered on, it enters the download mode; when the system is powered on, it enters the operation mode. If the user does not need this function, the pin can be left open (N/C) |
| 2 | VCC | P | Power supply pin: 3.3V \pm 5% |
| 3 | GND | P | Power down |
| 4 | RXD | I | Data input: serial port input, TTL level |
| 5 | TXD | O | Data output: serial port output, TTL level |
| 6 | USBD- | | USB D- (USB version) |
| 7 | USBD+ | | USB D+ (USB version) |
| 8 | N/C | | Floating |
| 9 | BEEP | O | The output signal of the buzzer is not enough to directly drive the buzzer. Please add a driving circuit when using it. |
| 10 | DLED | O | Indicator light output signal: its output current is not enough to directly drive the LED lamp, please add a driver circuit when using |
| 11 | N/C | | Floating |
| 12 | TRIG | I | Trigger pin: The voltage of this pin is low enough to trigger the module to read and decode |

4.Angle of view

Rotate around the Z axis

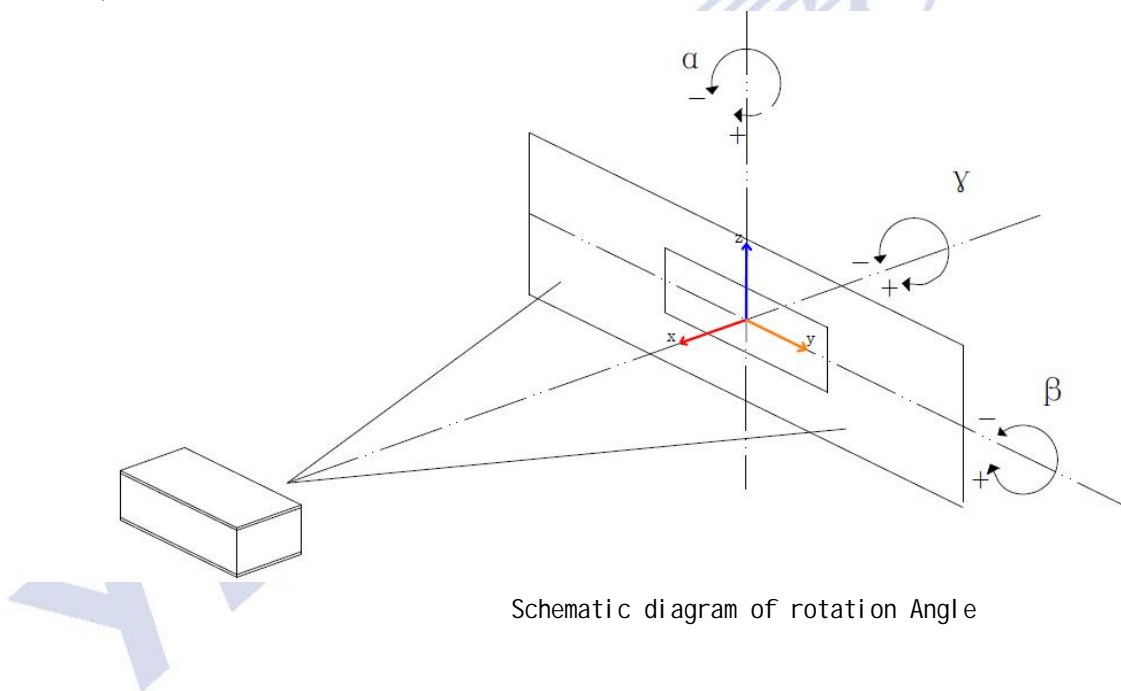
$$\alpha = \pm 40^\circ$$

Rotate around the Y axis

$$\beta = \pm 65^\circ$$

Rotate around the X axis

$$\gamma = \pm 35^\circ$$



Schematic diagram of rotation Angle