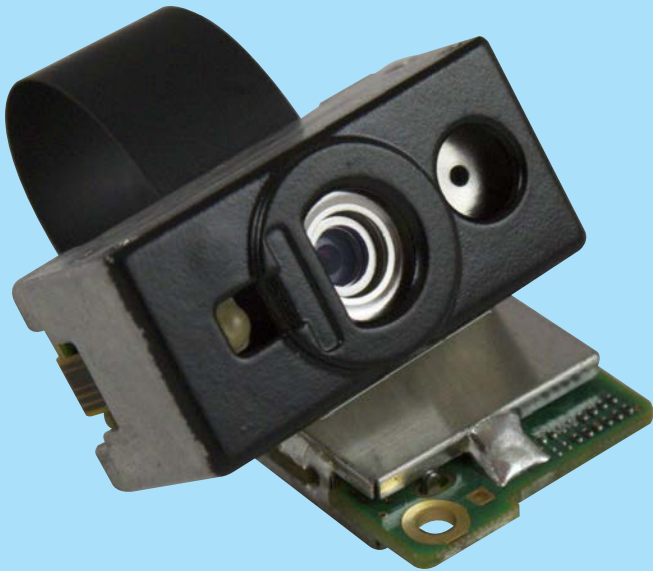


OEM

# MDI-2300

## 2D Imager Barcode Scan Engine



### Highlights

- 2D CMOS imager scan engine with fast decode speed of 80 frames per second (FPS)
- Small camera size and flexible cable length between the camera and decode board make it easy to fit into OEM devices
- Serial CMOS via 17 pin FFC connector
- Class 1 laser for easy painting of target images
- Auto-contrast control enables high-resolution image capture
- Adjustable illumination makes it easy to read barcodes off various surface types including LCD screens
- Low power, operates under 3.3V or 5V to fit your design needs
- Engineering kit available—enables faster time to market
- Compact form factor—CMOS camera dimensions are 1.1 x 0.56 x 0.53 inches while PCB decoder board measures 0.73 x 0.19 x 1.19 inches
- Two year warranty

# MDI-2300

## Product Specifications

### COMMUNICATION

**SERIAL CMOS:** 17 pin FFC connector

### POWER

**VOLTAGE REQUIREMENTS:** 3.3V  $\pm$  5%

**CURRENT CONSUMPTION:** Maximum 390 mA

### 2D IMAGER OPTICS

**LIGHT SOURCE:** Aiming laser diode, illumination LEDs

**SCAN METHOD:** CMOS area sensor, 900 x 512 pixels, gray scale

**SCAN RATE:** Up to 80 fps, after auto-focus activation (100 ms after triggering)

**IMAGE FORMAT:** Bitmap, JPEG

**READING PITCH ANGLE:** -50 to 0°, 0 to +50°

**READING SKEW ANGLE:** -50 to 0°, 0 to +50°

**READING TILT ANGLE:** 360°

**MINIMUM RESOLUTION AT PCS 0.9:** 5 mil (0.127 mm)

**MINIMUM PCS VALUE:** 045

**FIELD OF VIEW:** Horizontal 40°, Vertical 23°

#### DEPTH OF FIELD:

PDF 417: 5 mil (0.127 mm) 1.77 - 4.72 in (45 - 120 mm)

PDF 417: 10 mil (0.254 mm) 1.97 - 10.6 in (50 - 270 mm)

Data Matrix: 10 mil (0.254 mm) 1.77 - 5.91 in (45 - 150 mm)

Code 39: 10 mil (0.254 mm) 1.77 - 10.2 in (45 - 260 mm)

### SUPPORTED SYMBOLOGIES

**BARCODE (1-D):** JAN/UPC/EAN incl. add on, Codabar/NW-7, Code 11, Code 39, Code 93, Code 128, GS1-128 (EAN-128), GS1 DataBar (RSS), IATA, Industrial 2of5, Interleaved 2of5, ISBN-ISSN-ISMN, Matrix 2of5, MSI/Plessey, S-Code, Telepen, Tri-Optic, UK/Plessey

**BARCODE (2D):** Aztec Code, Aztec Runes, Chinese Sensible code, Codablock F, Composite codes, Data Matrix (ECC200/ECO-140), Maxi Code (mode 2~5), MicroPDF417, Micro QR Code, PDF417, QR code

**BARCODE (POSTAL CODES):** Chinese Post, Intelligent Mail Barcode, Korean Postal Authority code, POSTNET

### DURABILITY

#### TEMPERATURE:

Operation: -4 to 131 °F (-20 to 55 °C)

Storage: -40 to 158 °F (-40 to 70 °C)

#### HUMIDITY:

Operation: 5 - 85% (non-condensing, non-freezing)

Storage: 5 - 85% (non-condensing, non-freezing)

#### AMBIENT LIGHT IMMUNITY:

Fluorescent: 10,000 lx max

Direct sun: 100,000 lx max

Incandescent: 10,000 lx max

**DROP TEST:** packed in dummy case 5 ft (1.5 m)

drop onto concrete surface

**MTBF:** 10,000 hours

### PHYSICAL

#### DIMENSIONS (WXHXD):

Camera (CMOS): 1.1 x 0.56 x 0.53 in (27.3 x 14.2 x 13.4 mm)

PCB (decoder board): 0.73 x 0.19 x 1.19 in (18.5 x 4.8 x 30.3 mm)

Extended cable between camera and decoder board: 1.97 in (50 mm)

#### WEIGHT:

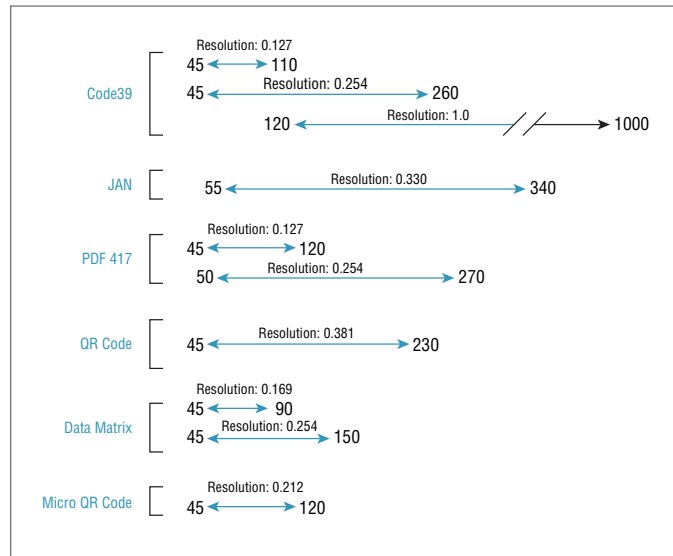
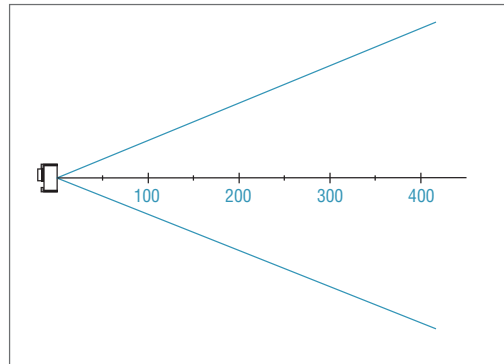
Camera (CMOS): Ca. 0.25 oz (7 g)

PCB (decoder board): Ca. 0.14 oz (4 g)

### REGULATORY AND SAFETY

**PRODUCT COMPLIANCE:** IEC 60825-1:2007 Class 1, CDRH Class I

Depth of Field (millimeters)



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