# **MDI-5300**

## 2D Imager Barcode Scan Engine







### **Highlights**

- · Low profile, full spectrum illuminated 2D CMOS imager
- High performance, low power consumption and an ultra-fast 120 fps CMOS imager sensor enables high speed scanning of 1D and 2D barcodes and OCR fonts
- Class 1 red cross laser aiming and warm white LED for illumination makes it easy to aim
- Fast global shutter technology providing exceptional motion tolerance
- Improved scanning of curved, wide, poorly printed and damaged barcodes
- Perfect for integration into small, space constrained mobile, medical, or retail barcode scanning devices
- Communication interface: USB or RS232
- Engineering kit available enables faster time to market
- Two year warranty



# **MDI-5300**

### **Product Specifications**

#### COMMUNICATION

12 PIN FFC CONNECTOR: Serial TTL, USB

#### **POWER**

VOLTAGE REQUIREMENT: 3.0V ~ 5.5V CURRENT CONSUMPTION: Typical 300 mA

LOW POWER CURRENT: 1.4 mA SUSPEND MODE: 30 mA

#### 2D IMAGER OPTICS

LIGHT SOURCE: Red cross aiming laser, warm white illumination LED

SCAN METHOD: 1 MP CMOS area sensor, 1280 x 800 pixels, black and white

SCAN RATE: Up to 120 fps READING PITCH ANGLE: ± 65° READING SKEW ANGLE: ± 65° READING TILT ANGLE: 360° CURVATURE: R>20 mm (UPC)

MINIMUM RESOLUTION AT PCS 0.9: 4 mil (0.1 mm)

MINIMUM PCS VALUE: 0.2

#### FIELD OF VIEW:

Horizontal: 50° Vertical: 32° Diagonal: 58°

#### DEPTH OF FIELD AT CODE 39:

5 mil (0.127 mm) 2.6 - 5.75 in (66 - 146 mm) 10 mil (0.254 mm) 2.05 - 11.38 in (52 - 289 mm) 20 mil (0.508 mm) 3.07 - 22.32 in (78 - 567 mm)

#### DEPTH OF FIELD AT CODE 128:

7.9 mil (0.2 mm) 2.52 - 9.37 in (64 - 238 mm)

#### DEPTH OF FIELD AT EAN/UPC:

13 mil (0.33 mm) 2.09 - 14.06 in (53 - 357 mm)

#### DEPTH OF FIELD AT PDF417:

6.7 mil (0.169 mm) 2.4 - 6.93 in (61 - 176 mm) 10 mil (0.254 mm) 2.44 - 10.12 in (62 - 257 mm)

#### DEPTH OF FIELD AT QR CODE:

6.7 mil (0.169 mm) 2.99 - 4.96 in (76 - 126 mm) 15 mil (0.381 mm) 1.58 - 11.58 in (40 - 294 mm)

#### DEPTH OF FIELD AT DATA MATRIX:

6.7 mil (0.169 mm) 3.54 - 4.84 in (90 - 123 mm) 10 mil (0.254 mm) 2.16 - 7.16 in (54 - 181 mm)

#### SUPPORTED SYMBOLOGIES

BARCODE (1D): 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 2 of 5, Interleaved 2 of 5, ISBN-ISSN-ISMN, Matrix 2 of 5, 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), Passport MRZ (OCR-B), maxi Code (mode 2~5), MicroPDF417, MicroQR Code, PDF417, QR Code

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

#### **DURABILITY**

#### TEMPERATURE:

Operation: -4 to 140 °F (-20 to 60 °C) Storage: -40 to 158 °F (-40 to 70 °C)

#### HUMIDITY:

Operation: 5 - 90% (non-condensing) Storage: 5 - 90% (non-condensing)

#### 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 6 ft (1.8 m) drop

onto concrete surface MTBF: 375,419 hours

#### PHYSICAL

**DIMENSIONS (WXHXD)**: 0.99 x 0.43 x 0.83 in (25.3 x 10.8 x 21 mm)

WEIGHT BODY: 0.20 oz (Ca. 5.6 g)

#### REGULATORY AND SAFETY

RoHS, IEC62471:2006, IEC/EN 60825-1

#### ITEMS SOLD SEPARATELY:

MEK development board (with power supply, RS232 cable, USB cable, PCBs)

