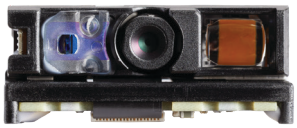
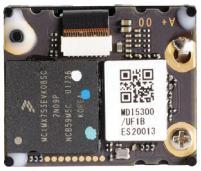
MDI-5300

2D CMOS Imager

The MDI-5300 is a super thin 2D CMOS imager with a fast shutter speed, a high speed processor and excellent motion tolerance. It rapidly and easily scans barcodes off cell phone, tablet and computer displays.





Highlights

- Low profile, full spectrum illuminated 2D CMOS imager
- Perfect for integration into small, space constrained mobile, medical, or retail barcode scanning devices
- High performance, lower power and high speed 1 MP CMOS imager sensor captures images at a speed of up to 120 fps, enabling high speed scanning of 1D and 2D barcodes and OCR fonts
- Fast global shutter technology providing exceptional motion tolerance
- Improved scanning of curved, wide, poorly printed and damaged barcodes
- Class 1 red cross laser aiming and warm white LED for illumination makes it easy to aim while providing safety and an extended service life
- Low power consumption to fit your design needs
- Communication interface: USB or RS232
- Engineering kit available – enables faster time to market
- Two year warranty

MDI-5300

Product Specifications

Communication
Serial CMOS: 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: 1MP 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)
Min. resolution at pcs 0.9: 0.1 mm / 4 mil
Min. pcs value: 0.2
Field of view: Horizontal 50°, Vertical 32°, Diagonal 58°
Depth of field at code 39:
66 - 146 mm (0.127 mm) / 2.6 - 5.75 in (5 mil)
52 - 289 mm (0.254 mm) / 2.05 - 11.38 in (10 mil)
78 - 567 mm (0.508 mm) / 3.07 - 22.32 in (20 mil)
Depth of field at code 128:
64 - 238 mm (0.2 mm) / 2.52 - 9.37 in (7.9 mil)
Depth of field at EAN/UPC:
53 - 357 mm (0.33 mm) / 2.09 - 14.06 in (13 mil)
Depth of field at PDF417:
61 - 176 mm (0.169 mm) / 2.4 - 6.93 in (6.7 mil)
62 - 257 mm (0.254 mm) / 2.44 - 10.12 in (10 mil)
Depth of field at QR code:
76 - 126 mm (0.169 mm) / 2.99 - 4.96 in (6.7 mil)
40 - 294 mm (0.381 mm) / 1.58 - 11.58 in (15 mil)
Depth of field at Data Matrix:
90 - 123 mm (0.169 mm) / 3.54 - 4.84 in (6.7 mil)
54 - 181 mm (0.254 mm) / 2.16 - 7.16 in (10 mil)

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 2of5, Interleaved 2of5, ISBN-ISSN-ISMN, Matrix 2of5, MSI/Plessey, S-Code, Telepen, Tri-Optic, UK/Plessey
Postal code: Chinese Post, Intelligent Mail Barcode, Korean Postal Authority code, POSTNET

2D code: 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

Durability
Temperature in operation: -20 to 60 °C / -4 to 140 °F
Temperature in storage: -40 to 70 °C / -40 to 158 °F
Humidity in operation: 5 - 90% (non-condensing)
Humidity in storage: 5 - 90% (non-condensing)
Ambient light immunity: Fluorescent 10,000 lx max, Sunlight 100,000 lx max, Incandescent 10,000 lx max
Drop test: Packed in dummy case 1.8 m / 6 ft drop onto concrete surface
MTBF: 375,419 hours

Physical
Dimensions (WxHxD): 25.3 x 10.8 x 21 mm / 0.99 x 0.43 x 0.83 in
Weight: Ca. 5.6 g / 0.2 oz

Regulatory & safety
Product compliance: RoHS, EC62471:2006, IEC/EN 60825-1

Items
Sold separately: MEK-3100 development board (With power supply, RS232 cable, USB cable, PCBs)

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