MDI-5350
2D CMOS Imager

MDI-5350 is an ultra-thin, 2D CMOS imager with a wide-angle lens, fast shutter speed, high speed processor and enhanced motion tolerance. It rapidly and accurately 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

- Improved performance, lower power and high-speed 1 megapixel CMOS imager sensor captures images at 120 fps (frames per second), enabling unparalleled scanning and decoding of 1D and 2D barcodes

- Supports OCR and GS1 data conversion

- 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

- Exceptional fast motion tolerance 2.54m/s

- The extremely high-performance decoder and horizontal 50-degree wide-angle lens enhances scanning performance, especially for wide-width barcodes and close-range applications. No more limitations due to scanning angles— simply scan with ease and precision.

- Improved scanning of curved, wide, poorly printed, low contrast and damaged barcodes

- Low power and an adjustable power consumption to fit your design needs

- Data editing program function captures up to 16 codes on multiple images simultaneously

- Engineering kit available – enables faster time to market

- Two year warranty

MDI-5350
Product Specifications

Communication
Serial CMOS: 12 pin FFC connector: Serial TTL, USB

Power
Voltage requirement: 3.3V ~ 5.0V
Current consumption: Max 1000 mA
Operating current: typical 310 mA
Standby current: typical 68 mA
Low power current: 1.0 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: 0.076 mm / 3 mil
Min. pcs value: 0.2
Field of view: Horizontal 50°, Vertical 32°, Diagonal 58°
Depth of field at code 39:
50 - 292 mm (0.127 mm) / 1.97 - 11.49 in (5 mil)
39 - 517 mm (0.254 mm) / 1.54 - 20.35 in (10 mil)
48 - 935 mm (0.508 mm) / 1.89 - 36.81 in (20 mil)
Depth of field at code 128:
47 - 402 mm (0.2 mm) / 1.85 - 15.83 in (7.9 mil)
Depth of field at EAN/UPC:
35 - 602 mm (0.33 mm) / 1.38 - 23.7 in (13 mil)
Depth of field at PDF417:
48 - 184 mm (0.127 mm) / 1.89 - 7.24 in (5 mil)
38 - 328 mm (0.254 mm) / 1.49 - 12.91 in (10 mil)
Depth of field at QR code:
65 - 126 mm (0.127 mm) / 2.56 - 4.96 in (5 mil)
25 - 362 mm (0.381 mm) / 0.98 - 14.25 in (15 mil)
Depth of field at Data Matrix:
75 - 115 mm (0.127 mm) / 2.95 - 4.53 in (5 mil)
30 - 236 mm (0.254 mm) / 1.18 - 9.29 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% (no-condensation, no frost)
Humidity in storage: 5 - 90% (no-condensation, no frost)
Ambient light immunity: Fluorescent 10,000 lx max, Sunlight 100,000 lx max, Incandescent 10,000 lx max
Drop test: Packed in aluminium 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. 7.3 g / 0.26 oz

Regulatory & safety
Product compliance: RoHS, IEC62471:2006, IEC/EN 60825-1

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

≡ OPTICON

www.opticon.com