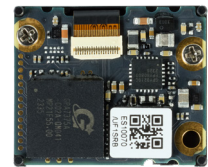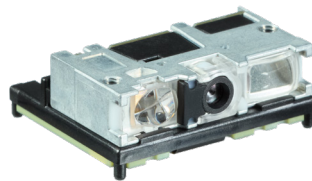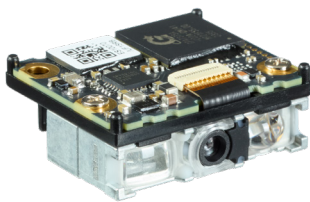# MDI-4700
2D CMOS Imager

The MDI-4700-SR imager scan engine is a cutting-edge solution for high-speed scanning of 1D, 2D codes, and OCR fonts. Due to its low profile, compact design, the MDI-4700 is ideal for integration into space constrained devices in healthcare, industrial, kiosk and mobile applications.

scale 100%

Highlights

- Industry's thinnest (10mm) 2D imager barcode scan engine

- Perfect for integration into small, space constrained mobile, medical, or retail barcode scanning devices

- Fast motion tolerance 10m/s

- High performance and low power 800MHz CPU and an ultra-fast 120 frames per second (fps) CMOS imager sensor enable high speeding scanning of 1D and 2D barcodes and OCR fonts

- Fast global shutter technology providing exceptional motion tolerance for moving applications

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

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

- Single line green LED and warm, white LED illumination makes it easy to aim while providing safety and an extended service life

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

- Communication interface: USB or RS232

- Engineering kit available – enables faster time to market

- Two year warranty protects your investment

MDI-4700
Product Specifications

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

Power
Voltage requirement: 3.0V ~ 5.5V
Current consumption: Max. 300 mA
Standby current: 26 mA

2D Imager optics
Light source: Aiming green LED, warm white LED illumination
Scan method: CMOS area sensor, 640 x 480 pixels, black and white
Scan rate: Up to 120 fps
Reading pitch angle: ± 65°
Reading skew angle: ± 65°
Reading tilt angle: 360°
Curvature: R>15 mm (EAN8), R>20 mm (EAN13)
Min. resolution at pcs 0.9: 0.1 mm / 4 mil
Min. pcs value: 0.2 (0.3 for UD model)
Field of view: Horizontal 38°, Vertical 28.9°, Diagonal 46.4°
Depth of field at code 39:
52 - 126 mm (0.127 mm) / 2.05 - 4.96 in (5 mil)
46 - 246 mm (0.254 mm) / 1.81 - 9.68 in (10 mil)
60 - 466 mm (0.508 mm) / 2.36 - 18.35 in (20 mil)
Depth of field at QR code:
64 - 106 mm (0.169 mm) / 2.52 - 4.17 in (6.7 mil)
30 - 234 mm (0.381 mm) / 1.18 - 9.21 in (15 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 - 95% (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: 50,000 hours

Physical
Dimensions (WxHxD): 25.3 x 10 x 21 mm / 0.99 x 0.39 x 0.82 in
Weight: Ca. 7 g / 0.24 oz

Regulatory & safety
Product compliance: RoHS, IEC62471

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

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