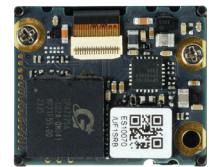
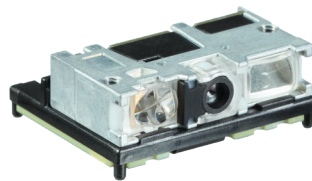
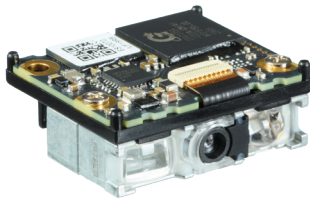
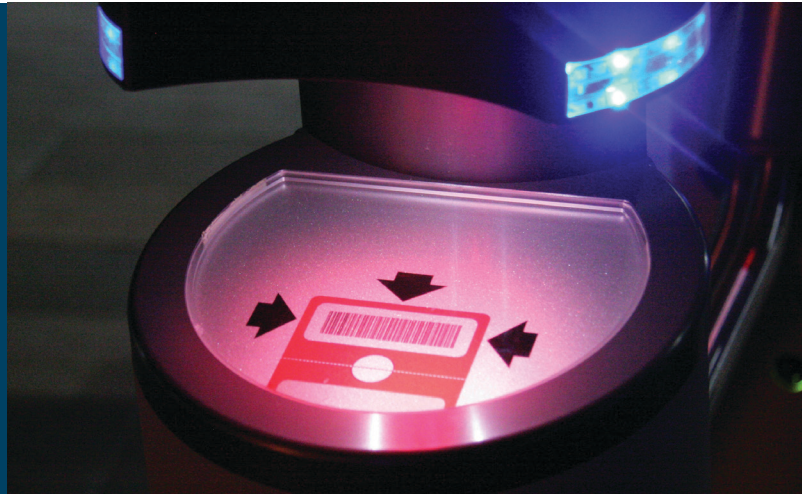


# MDI-4700

## 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

- Best-in-class depth of field (DOF) and minimum resolution with a high-quality optical design, components and an enhanced decoder
- Industry's thinnest (10mm) 2D imager barcode scan engine
- Perfect for integration into small, space constrained mobile, medical, or retail barcode scanning devices
- Exceptional 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 speed scanning of 1D and 2D barcodes and OCR fonts
- Improved scanning of curved, wide, poorly printed and damaged barcodes
- Improved FPC connection
- Data editing program function captures up to 16 codes on multiple images simultaneously
- New symbologies: rMQR, DMRE, DPM, Dot code, OCR
- 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
- 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:**  $\pm 65^\circ$

**Reading skew angle:**  $\pm 65^\circ$

**Reading tilt angle:**  $360^\circ$

**Curvature:**  $R > 20$  mm (UPC)

**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  $38^\circ$ , Vertical  $28.9^\circ$ , Diagonal  $46.4^\circ$

**Depth of field at code 39:**

50 - 108 mm (0.076 mm) / 1.97 - 4.25 in (3 mil)

38 - 221 mm (0.127 mm) / 1.49 - 8.7 in (5 mil)

44 - 365 mm (0.254 mm) / 1.73 - 14.37 in (10 mil)

59 - 603 mm (0.508 mm) / 2.32 - 23.74 in (20 mil)

**Depth of field at QR code:**

55 - 93 mm (0.127 mm) / 2.17 - 3.66 in (5 mil)

30 - 260 mm (0.381 mm) / 1.18 - 10.24 in (15 mil)

**Depth of field at Code 128:**

59 - 291 mm (0.20 mm) / 2.32 - 11.46 in (7.9 mil)

**Depth of field at EAN/UPC:**

42 - 445 mm (0.33 mm) / 1.65 - 17.52 in (13 mil)

**Depth of field at PDF417:**

40 - 118 mm (0.127 mm) / 1.57 - 4.65 in (5 mil)

46 - 230 mm (0.254 mm) / 1.81 - 9.06 in (10 mil)

**Depth of field at Data Matrix:**

56 - 98 mm (0.127 mm) / 2.20 - 3.86 in (5 mil)

31 - 173 mm (0.254 mm) / 1.22 - 6.81 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), DMRE, Dot code, DPM, maxi Code (mode 2-5), MicroPDF417, MicroQR Code, OCR, Passport MRZ (OCR-B), PDF417, QR Code, rMQR

### 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, no frost)

**Humidity in storage:** 5 - 90% (non-condensing, no frost)

**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

**Vibration test:** 12 - 200 Hz with 3.3G for 10 minutes

**MTBF:** 444,500 hours

### Physical

**Dimensions (WxHxD):** 25.3 x 10 x 21 mm / 0.99 x 0.39 x 0.82 in

**Weight:** Ca. 7.1 g / 0.25 oz

### Regulatory & safety

**Product compliance:** RoHS, IEC62471

### Items

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