# **E OPTICON**

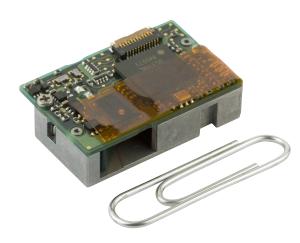
### Engines

# MDL-1000

Laser scanner

The MDL-1000 is a laser barcode scan engine with an extremely small rectangular form factor. This laser scan engine is ideal for spaceconstrained portable devices and has a low power consumption.











### Highlights

- Features a 650 nm visible laser diode that scans bi-directionally
- Extremely fast scan rate of 100 scans/second
- Complete barcode scan engine module with integrated decoder
- Small size makes it easy to mount and integrate into space constrained areas
- Serial CMOS communication via 12 pin FFC connector
- Low power consumption to fit your design needs
- Programmable software with a wide variety of options
- Engineering kit available enables faster time to market
- Two year warranty protects your investment

## MDL-1000 Product Specifications

#### Communication

Serial CMOS: 12 pin FFC connector

#### Power

Voltage requirement: 3.3V ± 10% Current consumption: Max. 125 mA

#### Barcode scanner optics

Light source: 650 mn visiblie laser diode Scan method: Bi-directional scanning Scan rate: 100 scans / seconds Reading pitch angle: ± 35° Reading skew angle: -50 to 8°, 8 to +50° Reading tilt angle: ± 20° Curvature: R>15 mm (EAN8), R>20 mm (EAN13) Min. resolution at pcs 0.9: 0.127 mm / 5 mil Min. pcs value: 0.45 Depth of field at code 39:

70 - 650 mm (1.0 mm) / 2.76 - 25.59 in (39 mil) 50 - 420 mm (0.5 mm) / 1.97 - 16.54 in (20 mil) 50 - 260 mm (0.25 mm) / 1.97 - 10.24 in (10 mil) 50 - 150 mm (0.15 mm) / 1.97 - 5.91 in (6 mil) 60- 120 mm (0.127 mm) / 2.36 - 4.72 in (5 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, Korean Postal Authority code

#### Durability

Temperature in operation: -20 to 65 °C / -4 to 149 °F Temperature in storage: -30 to 70 °C / -22 to 158 °F Humidity in operation: 5 - 90% (non-condensing) Humidity in storage: 5 - 90% (non-condensing) Ambient light immunity: Fluorescent 4,000 lx max, Sunlight 80,000 lx max, Incandescent 4,000 lx max Drop test: Packed in dummy case 1.8 m / 6 ft drop onto concrete surface

MBTF: 30,000 hours except laser diode (10.000 hours) and except mirror scan unit (10,000 hours)

#### Physical

Dimensions (WxHxD): 28 x 7.8 x 18 mm / 1.1 x 0.31 x 0.71 in Weight: Ca. 10 g / 0.35 oz

#### Regulatory & Safety

RoHS, JIS C6802 Class 2, IEC60825-1 Class 2, FDA CDRH Class II

#### Items

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



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