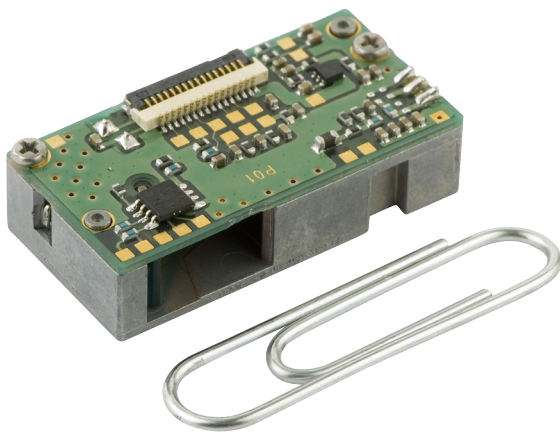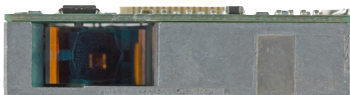# MSL-1000

## Laser scanner

The MSL-1000 is a small form factor undecoded laser barcode scan engine. This low-profile scan engine is ideal for custom scanning applications including scanning non-standard barcodes.



scale 100%



## Highlights

- Undecoded laser barcode scan engine
- Features a 650 nm visible laser diode that scans bi-directionally
- Extremely fast scan rate of 100 scans/second
- Small size makes it easy to mount and integrate into space constrained areas
- Output is digital barcode pattern (TTL) via 12 pin FFC connector
- Programmable software with a wide variety of options
- Low profile, rectangular scan engine-dimensions of 27 x 7.8 x 14 mm, weighs 3.9 grams
- Engineering kit available-enables faster time to market
- Two year warranty

# MSL-1000
## Product Specifications

### Communication
Serial CMOS: 12 pin FFC connector

### Power
Voltage requirement: 3.3V ± 10%
Current consumption: Max. 75 mA

### Barcode scanner optics
Light source: 650 mn visibele 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)

### 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 14 mm /
1.1 x 0.31 x 0.55 in
Weight: Ca. 3.9 g / 0.14 oz

### Regulatory & Safety
RoHS, JIS-C-6802 Class 2, IEC 60825-1+A2

### Items
Sold separately: MEK1000 SDK (development board,
Getting started disc, RS232 cable)

≡ OPTICON

www.opticon.com