

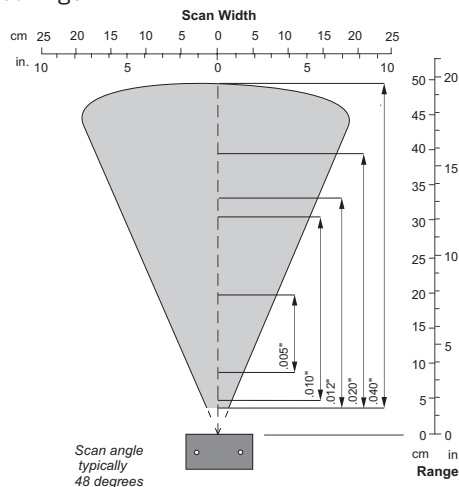
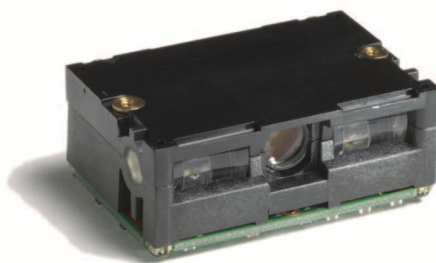
# MS-3

**For simple embedded bar code scanning, the MS-3 Engine offers small size and reliable performance with minimal budget impact.**

One of the smallest and lightest scan engines in its class, the **MS-3 Engine** is ideal for embedded bar code applications where space is restricted or weight is a consideration. Designed for industry standard form factor, it offers embedded power management, bi-directional serial link for dynamic configuration, and upgradeable flash memory.

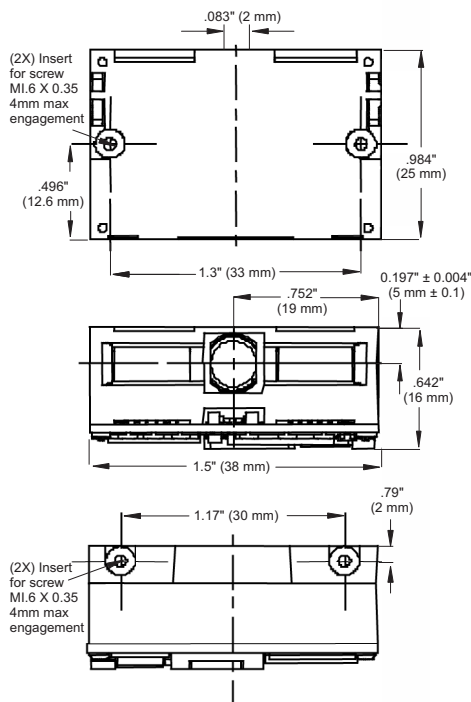
The **MS-3 Engine** is part of Microscan's MS-3 trio that also includes the **MS-3 CCD** and the **MS-3 Laser**. The MS-3 Engine is the base model offering fewer features than the CCD and Laser options but at considerable budget savings.

## ENGINE



### MECHANICAL (ACTUAL SIZE)

**Weight:** 17 g (0.6 oz.)



### GENERAL

Compact CCD scan engine for OEM devices.

### DESIGN

**Processor:** Custom chip (ASIC inc. DSP processor) for signal processing and decoding.

**Flash memory Sensor:**

CCD linear image sensor

**Optics:** 645 nm visible LED

Bright and sharp scanning line

### SCANNING PERFORMANCE

**Scan rate:**

**Decoded mode:** 270 scans/sec auto-adaptive.

**Undecoded mode:** 36 scan/sec

**Min. X dimension:** down to 0.05 mm

(2mil) on Code 39

**Depth of field:** 0 to 49.2 cm (19.4")

**Barcode width:** up to 18 cm (7") on 0.3 mm (12 mil) resolution code

**Print contrast:** down to 20%

**Scan angle:** 48° nominal

### SYMBOLOGIES

UPC (E&A), EAN, Code 11, Code 39, Code 128, UCC EAN 128, ISBN, ISBT, Interleaved, Matrix, Industrial and Standard 2 of 5, Codabar, Code 93, MSI, Plessey, Telepen.

### INTERFACES

**Undecoded mode:** industry standard output (DBP)

**Decoded mode:** RS232 TTL

### CONNECTION

**Connector:** 12 pin ZIF

**Flexwire:**

**Undecoded mode:** 12 to 8 pin ZIF

**Decoded mode:** 12 to 12 pin ZIF

### CONFIGURATION

**(DECODED INTERFACE ONLY)**

**Setup Options:** EasySet PC, Windows™ software, and dynamic RS-232 configuration.

### HOST CONNECTOR/PIN ASSIGNMENTS

**12 Pin ZIF Connector**

Pin No.	Decoded Operation
1	VCC
2	RXD
3	Trigger input
4	Power enable
5	TXD
6	RTS
7	GND
8	Detect in 1 Must be connected to contact 11
9	LED
10	CTS
11	Buzzer Must also be connected to contact 8
12	Detect in 0 Must be connected to GND

### CHARACTERISTICS

**Voltage:** 5V +/- 5%

**Current:**

**Undecoded mode:** 122 mA typical

**Decoded mode:** 130 mA typical

**Standby current:** 1uA

### ENVIRONMENTAL CHARACTERISTICS

**Operating temperature:** 30 to 60°C (-22 to 140°F)

**Storage temperature:** -40 to 60°C (-40 to 140°F)

**Relative humidity:**

5% to 95% (non-condensing)

**Shock:** 2000G **Vibration:** 50G r.m.s.

**Ambient light:** works in any lighting conditions, from 0 to 100 000 lux

### REGULATORY APPROVALS

UL recognized component, VDE certified

### ACCESSORIES

Demo board kit compatible with Intermec standard RS232 cable.

ISO 9001/Cert. No. US96/0465

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**Warranty**—One year limited warranty on parts and labor. Extended warranty available.

## MICROSCAN®

**Microscan Systems, Inc.**

Tel 425 226 5700 / 800 251 7711

Fax 425 226 8250

**Microscan Europe**

Tel 31 172 423360 / Fax 31 172 423366

**Microscan Asia Pacific R.O.**

Tel 65 6846 1214 / Fax 65 6846 4641

**Web site:** www.microscan.com

**E-mail:** info@microscan.com

**Tech support:** helpdesk@microscan.com