



# MS 4404 MINISCAN



**Imaging Device with True  
 RS-232 Compatible Interface**  
**Deliver image capture capabilities to fixed mount applications**  
**Suitable for fixed mount unattended scanning**

The MS4404 fixed mount scan engines provide signature capture and imaging capabilities in addition to complete omni-directional decode of one-dimensional (1D) and two-dimensional (2D) barcodes. An array of flexible features such as adjustable focal lengths, multiple illumination options, integrated aiming system, and trigger mode capabilities allow its use in all types of environments and applications including operation in both sunlight and total darkness.

Market	Applications
Healthcare	Mobile clinical diagnostic equipment for dialysis, blood glucose, drug dispensing.
Industrial	Electronic manufacturing
Security and government	ID verification
Retail	Kiosks, lottery terminals

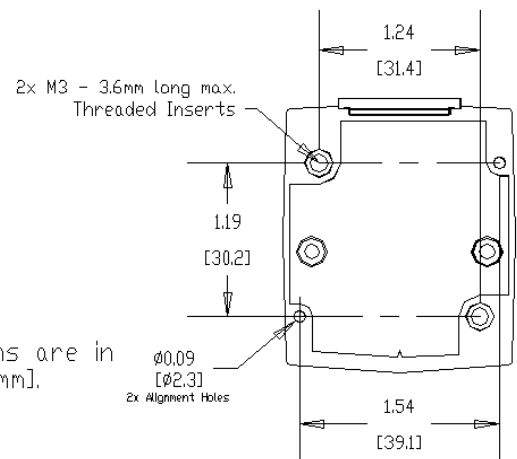
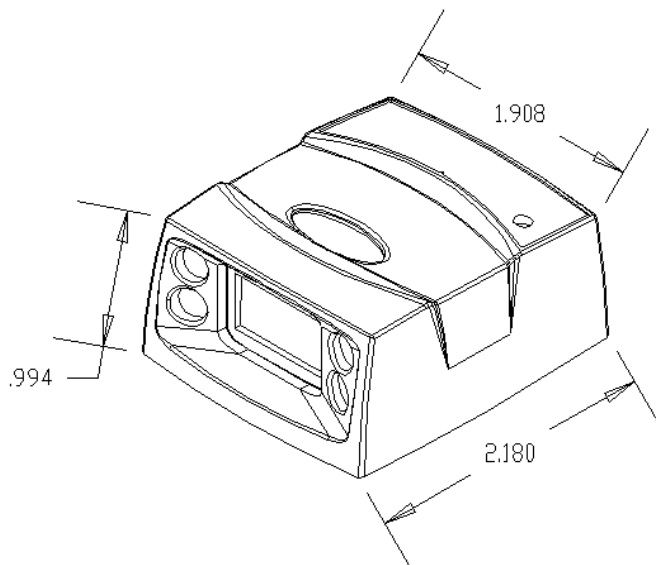
Features	Benefits
Omni-directionally reads 1D and 2D barcodes	Speeds processing since the barcodes and images do not have to be oriented with a scan line.
Integrated barcode decoding	Simplifies integration and removes the task of complex algorithm development.
CCD-based image capture	Captures signatures, black-and-white images, and multiple barcode formats.
Smart focus system	Speeds image capture and provides exceptional depth of field for all barcode densities.
Integrated aiming system	Offers unique framing of image for quick, reliable, and consistent capture of barcodes and images.
Illumination internal/external	Allows the flexibility to adapt to various lighting environments including total darkness.
Low power operation	Eliminates the need for an external power supply when connected to a USB host port.
Simple serial interface for programming	Provides powerful and easy communication between the host and scanner including advanced options and functionality.
MS4404 Low Voltage Serial interface options	Allows direct connectivity with standard true RS-232 serial ports.

User Environment:	
Ambient Light	Total darkness to 9,000ft. candles (96,900Lux)
Operating Temperature:	TBD
Storage Temperature:	-40° to 158° F (-40° to 70°C)
Humidity	Operating: 95% RH, non-condensing at 60°C Storage: 85% RH, non-condensing at 70°C
Shock:	2000 +/- 5% G
Power MS4404	Input Voltage: +5V - +12V +/- 10% Input Current (at +5V, presentation mode active, scan with external illumination:) 240mA typ.

Performance Characteristics:	
Field of view:	Horizontal: 33.2 degrees Vertical: 24.5 degrees
Optical Resolution (gray scale)	640 (H) x 480 (V) pixels
Roll:	360°
Pitch Angle:	+/- 60° from normal
Skew Tolerance:	+/- 50° from normal
Focal Distance from front of Engine:	Near: 5 inches Far: 9 inches
Aiming Element (VLD):	650 nm +/- 5 nm
Illumination Element (LEDs) Internal/External:	635 nm +/- 20 nm
Interface:	True RS- 232
Symbologies:	1-D Symbology: UPC/EAN, Code 128, UCC.EAN128, RSS, Code 39, Code 93, I 2 of 5, Discrete 2 of 5, Codabar, MSI 2-D Symbology: MaxiCode, PDF417, DataMatrix, QRCode Postal Codes: U.S. Postnet, U.S Planet, UK Postal, Australian Postal, Japan Postal
Image File Formats:	BMP, TIFF, JPEG
Programmable Parameters:	Power Mode, Trigger Mode, Beeper Tone, Session Time, Focus Control, Camera Control, Image Control

Regulatory	
Laser Classification (aiming Element):	It is intended for use in CDRH Class II/IEC 825 Class 1 devices
Electrical Safety (pending)	UL, VDE and CUL
Radiated Emissions (pending)	FCC Part 15 Class B, CISPIR22 Class B

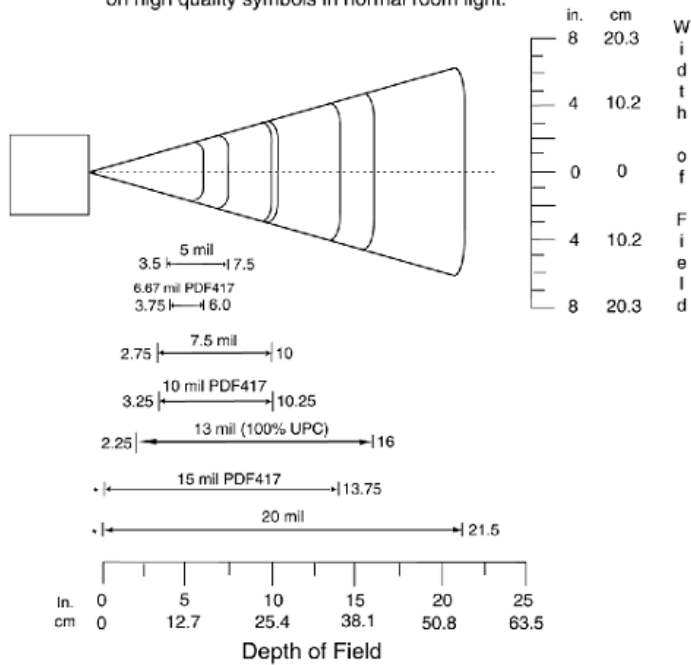
Physical Characteristics:	
Dimensions:	0.99in H x 1.91in W x 2.18in D
Weight:	1.8oz
Interface:	9-pin Male D-sub supports all interfaces



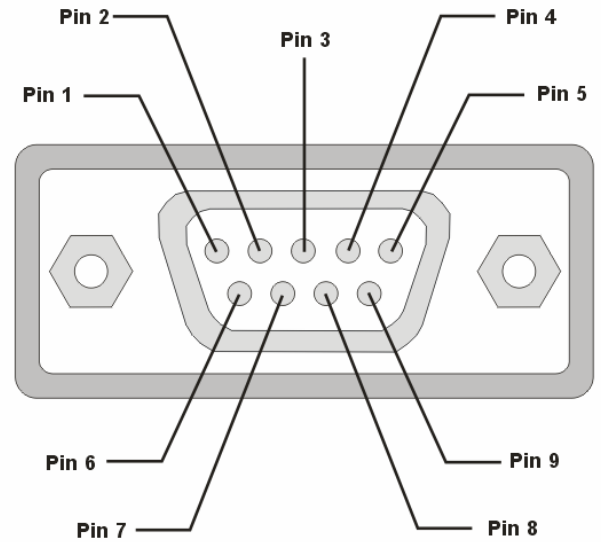
NOTE:  
Dimensions are in  
inches [mm].

## Decode Zone

Note: Typical performance at 73°F (23°C)  
on high quality symbols in normal room light.



\* Minimum distance determined by symbol length and scan angle.



True RS-232 Interface	
Pin 1	Trigger
Pin 2	TXD Output
Pin 3	RXD Input
Pin 4	NC
Pin 5	Ground
Pin 6	+5VDC - +12VDC
Pin 7	CTS Input
Pin 8	RTS Output
Pin 9	NC
NC	= No Connect (Do not Connect This Pin)



**CAUTION**

CLASS 1 LASER PRODUCT  
LASER CLASSE 1  
APPAREIL À LASER DE CLASSE 1  
7mW Max. @ 650nm

LASER LIGHT. DO NOT STARE INTO BEAM