

MiniScan (MS) 32XX Series



EMBEDDED TECHNOLOGY SOLUTIONS: SCAN ENGINES

Plug-and-Play Module for Fast, Easy Self-Scanning Integration

The MS 32XX from Symbol Technologies is a member of the MiniScan family of fixed-mount scanners specifically designed for kiosks as well as other standalone and OEM applications. The MS 32XX high performance scan module delivers speedy plug-and-play installation in your OEM device—even if you don't have the in-house technical resources for scanner integration. The omnidirectional scan pattern minimizes the need for precise positioning of 1D symbols and helps you create intuitive self-scanning applications.

In industries like retail and hospitality, the MS 32XX makes it easier for you to enrich your high-traffic kiosks with customer-centric, self-scanning applications. Some examples include:

Environment:	Applications:
Department and convenience stores; Supermarkets; Warehouse clubs	Kiosks, gift registry, listening stations, loyalty/incentive programs, customer service, and price verification.
Airports and Hospitality	ATMs and Self check-in/check-out

How to Create the Ideal Self-Scanning Applications...Faster

All of the robust features in the MS 32XX are easy to program and configure, enabling you to cut your development time and bring your product to market faster. With a rugged durable housing, exit window, integrated beeper and interface options, the MS 32XX enables your project teams to quickly and confidently integrate high-performance 1D and 2D bar code data capture into many self-scanning applications. The MS 32XX delivers a high-speed omnidirectional scan pattern that minimizes the need to position 1D bar codes resulting in quick, accurate scanning by any user—novice or expert.

Proven Embedded Technology and Services to Enhance Your Solutions

With millions of installations worldwide, Symbol Embedded Technology solutions are hard at work in a variety of industries and everyday applications. Proven technology from Symbol Technologies allows you to offer your customers superior products and services. In addition, comprehensive training and integration services are available to support your design, testing and approval needs.



Features	Benefits
Compact size	Multiple mounting and interface options provides significant flexibility in the design of your kiosk
High speed omnidirectional scan pattern	Build your device with the confidence that even novice users can scan items quickly and accurately
Generates four different scan patterns: omnidirectional, semi-omnidirectional, raster and single line scan patterns	Enables you to select the best scan pattern for your application
Features rugged, durable housing with exit window, integrated beeper, LEDs, decoder and a variety of interfaces including RS-232, USB and Synapse	Gives you plug-and-play installation to reduce your development time and speed up your time to market
Sealed to IP54 standards; protects against water and dust	Ensures reliable performance in rough conditions
Reads 1D and 2D symbols including PDF417, MicroPDF, Reduced Space Symbology® (RSS) and Composite codes	Versatile bar code data capture in any environment
Retrocollective optical system provides high ambient light immunity	Bright scan pattern ensures visibility and ease of use improving productivity at the point-of-activity
Easy to program simple serial interface (SSI)	Provides quick and easy interface (SSI) communication with advanced features and functionality between scanner and host

For more information about Symbol Embedded Technology, contact us at +1.800.722.6234 or +1.631.738.2400, or visit us on the web at: www.symbol.com/et

MS 32XX Specification Highlights

Physical Characteristics

Dimensions (maximum):	1.86 in. H x 2.2in. W x 3.43 in. L
Weight:	4.4 oz /125 gm

Performance Characteristics

Light Source:	Visible Laser Diode 650 nm
Scan Rate:	640 scans/sec (nominal)
Scan Angle:	
Horizontal:	Cyclone 34°; Raster 34°
Vertical:	Cyclone 34°; Raster 12.5°
Scan Patterns:	Linear, Smart Raster and Omnidirectional
Minimum Print Contrast:	35% absolute dark/light reflectance differential (PDF) 25% absolute dark/light reflectance differential (1D)
Symbologies:	PDF417, MicroPDF, UPC/EAN, Code 39, I 2of 5, Code 128, Codabar, MSI Plessey, RSS and Composite Codes
Programmable Parameters:	Laser On Time, Aim Duration, Power Mode, Trigger Mode, Bidirectional Redundancy, Symbology types/lengths, Data formatting, Serial Parameters, Beeper Tone, Scan Angle, Pattern Controls
Interfaces:	MS 3204: RS-232 MS 3207: TTL RS232, USB, Synapse

User Environment

Ambient Light:	Artificial: 450 ft. candles (4,844 LUX) Sunlight: 8000 ft. candles (86,112 LUX) with correct enclosure
Operating Temperature:	-22° to 140° F /-30° to 60° C @ 100% duty cycle
Storage Temperature:	-40° to 158° F /-40° to 70° C
Environmental Sealing:	IP54
Humidity:	5% to 95% noncondensing
Power:	MS 3204: Input Voltage: 5.0 VDC ± 10% Input Current: 250 mA typical Standby Current: 30 mA typical MS 3207: Input Voltage: ±5.0 VDC ± 10% Input Current: 250 mA typical Standby Current: 30 mA typical
Shock:	2000 G
Drop Specification:	Unit functions normally after multiple 30 in./76 cm drops to concrete



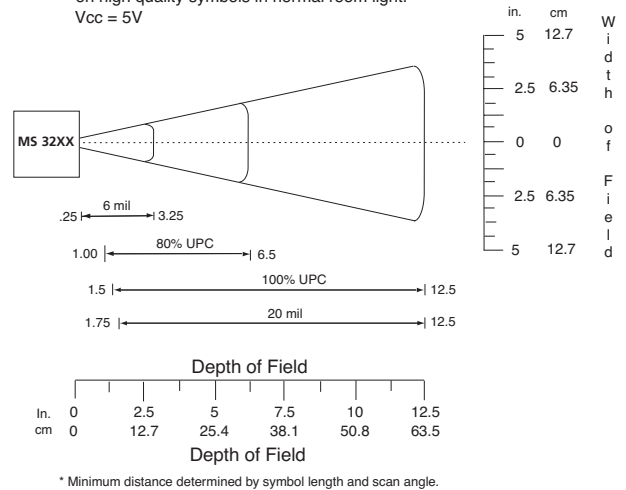
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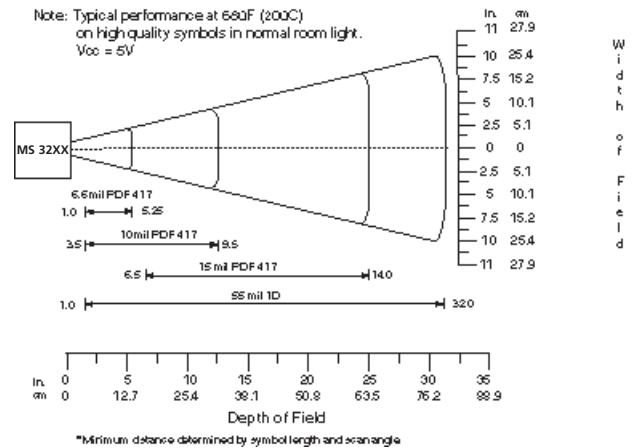
MS 32XX 1D Decode Zone

Note: Typical performance at 68°F (20°C) on high quality symbols in normal room light. Vcc = 5V



MS 32XX 2D Decode Zone

Note: Typical performance at 68°F (20°C) on high quality symbols in normal room light. Vcc = 5V



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