Symbol SE1200HP/SE1223HP

OEM Scan Engines

FEATURES

High performance scan engine
Excellent scanning performance on all types of bar codes including poorly printed and low contrast

Compact size/ interchangeable form factor
Optimized for quick and easy integration at an affordable price

Zinc chassis provides minimum weight and durability
Industry's highest shock rating for commercial, industrial or retail applications

Simple Serial Interface software (SSI)
Easy communication between scan engine and the host

Supports 3.0-5.5 VDC
Minimum power consumption delivers extended life for portable applications

High performance scanning for portable and fixed mount OEM devices

The Symbol SE1200HP (High Performance) Scan Engine is a perfect choice for your OEM design. The Symbol SE1200HP brings the benefits of bar code laser scanning to all types of OEM devices. Now handheld computers, kiosks, medical instruments, diagnostic equipment, lottery terminals, vending machines, robotics and countless other appliances can all be equipped with the leading-edge scanning technology and reliability that is available only from Motorola. The entire Symbol SE1200HP Scan Engine Series — including the High Performance, Long Range, Wide Angle and Very High Density models — has been designed to provide the highest scanning performance in the smallest package possible. For added versatility, each engine is identical in size, allowing for fast, cost-effective interchangeability when upgrading or modifying your OEM device for specialized applications.

Best in class scanning performance

The Symbol SE1200HP supports a 3.0-5.5 VDC operating range, enabling minimum power consumption to maximize uptime and productivity in portable applications. Available in both undecoded and decoded (Symbol SE1223HP) versions, the 650 nm "brighter" laser diode provides a scan line that is easy to see outdoors. This highly visible scan line ensures that in "Aim" mode scanning is easy and intuitive — even in full sunlight, while the retro-collective optical design helps to maintain its reliable scanning performance. Built-in Adaptive Logic Technology, previously available only in our premier handheld scanners, is now embedded in the Symbol SE1200HP. Using multiple digitizer thresholds, Adaptive Logic extends the working range on both high-density and poor-quality bar codes. For premium scanning performance in portable or fixed-mount devices, the Symbol SE1200HP Scan Engine has a typical working range from contact to beyond 60 in./152 cm. Its wide temperature range, and durable design ensure the Symbol SE1200HP delivers premium scanning performance in the most demanding environments.

Proven technology to enhance your solutions

With millions of installations worldwide, our OEM devices are proven to deliver high reliability and superior performance, ensuring the accurate and quick capture of data and images in your mission-critical applications and devices. In addition, since our OEM devices are designed to ease integration, you can bring your systems to market quickly and cost-effectively.

For more information about the Symbol SE1200HP, access our global contact directory at www.symbol.com/contact or visit us on the web at www.symbol.com/se12xxhp

"Aim" mode
Helps to make scanning easy and intuitive

Retro-collective optical system
Provides high ambient light immunity

650 nm bright laser diode
Easy-to-see scan line is suitable for outdoor applications

Symbol SE1200HP/SE1223HP Specifications

SYMBOL SE1200HP SCAN ENGINE SPECIFICATIONS (UNDECODED)	
Physical Characteristics	
Dimensions:	.76H x 1.51W x 1.0D (in) 19.3H x 38.35W x 25.4D (mm)
Weight:	1.19 oz./34 g
Configuration:	undecoded
Interface:	DPB on a 8 pin ZIF connector
User Environment	
Ambient Lighting Tolerance:	Tolerant to typical artificial indoor and natural outdoor (direct sunlight) lighting conditions. Fluorescent, Incandescent, Mercury Vapor, Sodium Vapor, LED[1]: 450 Ft Candles (4,844 Lux) Sunlight: 8000 Ft Candles (86,111 Lux)
Operating Temp.:	-22° to 131°F (-30° to 55°C)
Storage Temp.:	-40° to 140° F (-40° to 60° C)
Humidity:	5% to 95% non-condensing
Power:	Input Voltage: 3.0-5.5 VDC Scan Current: 65 mA typical Standby Current: 50 µA max.
Shock Rating:	2,000 G
Regulatory	
Laser Classification:	Intended for use in CDRH Class II and IEC Class 2 devices
Electrical Safety:	UL, VDE, and CUL recognized component laser
Environmental:	RoHS compliant
Performance Characteristics	
Light Source:	Visible Laser Diode 650 nm
Scan Rate:	35 (± 5) scans/sec (bidirectional)
Scan Angle:	42° ± 2°
Scan Patterns:	Linear
Minimum Print Contrast:	Minimum 20% absolute dark/light reflectance measured at 650 nm
Ranges - 1D codes:	**5 mil:** Code 39; 2.5:1 - 80% MRD: 2.75 - 7 (in) / 6.98 - 17.78 (cm) **7.5 mil:** Code 39; 2.5:1 - 80% MRD: 2.25 - 11 (in) / 5.72 - 27.94 (cm) **10 mil:** Code 39; 2.5:1 - 80% MRD: 1.75 - 15.75 (in) / 4.45 - 40 (cm) **13 mil:** 100% UPC - 80% MRD: 2 - 22 (in) / 5.08 - 55.88 (cm) **15 mil:** Code 39; 2.5:1 - 80% MRD 2 - 25 (in) / 5.08 - 63.5 (cm) **20 mil:** Code 39; 2.2:1 - 80% MRD: 2 - 30 (in) / 5.08 - 76.2 (cm) **40 mil:** Code 39; 2.2:1 - 80% MRD: 3.75 - 56 (in) / 9.53 - 142.24 (cm) **55 mil:** Code 39; 2.2:1 - 80% MRD: 5 - 66 (in) / 12.7 - 167.64 (cm)

SYMBOL SE1223HP SCAN ENGINE SPECIFICATIONS (DECODED)	
Physical Characteristics	
Dimensions:	.76H x 1.51W x 1.38D (in) 19.3H x 38.35W x 35.05D (mm)
Weight:	1.33 oz./37.7 g
Configuration:	decoded
Interface:	SSI Control over TTL Serial on a 12 pin ZIF connector
User Environment	
Ambient Lighting Tolerance:	Tolerant to typical artificial indoor and natural outdoor (direct sunlight) lighting conditions. Fluorescent, Incandescent, Mercury Vapor, Sodium Vapor, LED[1]: 450 Ft Candles (4,844 Lux) Sunlight: 8000 Ft Candles (86,111 Lux)
Operating Temp.:	-22° to 131°F (-30° to 55°C)
Storage Temp.:	-40° to 140° F (-40° to 60° C)
Humidity:	5% to 95% non-condensing
Power:	Input Voltage: 5 VDC ± 10% Scan Current: 110 mA typical Standby Current: 130 µA max.
Shock Rating:	2,000 G
Symbologies Supported:	All major 1D bar codes
Programmable Parameters:	Laser On Time, Aim Duration, Power Mode, Trigger Mode, Bi-directional Redundancy, Symbology Types/Lengths, Data Formatting, Serial Parameters, Beeper Tone
Regulatory	
Laser Classification:	Intended for use in CDRH Class II and IEC Class 2 devices
Electrical Safety:	UL, VDE, and CUL recognized component laser
Environmental:	RoHS compliant
Performance Characteristics	
Light Source:	Visible Laser Diode 650 nm
Scan Rate:	35 (± 5) scans/sec (bi-directional)
Scan Angle:	42° ± 2°
Scan Patterns:	Linear
Minimum Print Contrast:	Minimum 20% absolute dark/light reflectance measured at 650 nm
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1 - LED lighting with high AC ripple content can impact scanning performance

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