



Symbol SE2223

OEM Scan Engines



FEATURES

High speed scan rate

Optimized for aggressive performance on high-density PDF417 labels, RSS and other 2D symbols including Composite Codes, and Micro PDF

“Smart” raster pattern

Automatically tailors pattern to height of PDF417 symbol for maximum speed and efficiency

Smallest size

Excellent scanning performance in a small package

Zinc chassis

Minimum weight and strength; extremely durable

Special “Aim” mode

Helps make scanning easy and intuitive

A new dimension in performance for OEM systems

Expand the power of your OEM systems with the high-speed Symbol SE2223 Scan Engine with 1D and 2D decode capability. Ideal for a wide variety of OEM devices, this adaptive, multi-pattern scan engine packs power and performance into the smallest package available at an affordable price. The result is an engine unmatched for reliability, performance and durability, with the flexibility to enable design of totally integrated scanning solutions for any industry, in any environment — such as kiosks, ATMs, blood analyzers, automated medical test and processing equipment, and many other automated data entry services. It provides the perfect solution for any application where you need fast accurate scanning.

Big features in a small package

This small package is packed with the features you need to deliver best-in-class solutions. The high-speed raster pattern is optimized for the accurate rapid reading of 1D and 2D symbologies — minimizing the need for precise positioning of linear bar codes, and delivering excellent accuracy even with poorly printed bar codes. “Smart” raster technology ensures fast, efficient capture of high-density 2D symbols, including PDF417, Micro PDF, RSS and Composite codes. The 650 nm bright laser diode provides high visibility, even in

sunlight. And special “Aim” modes make scanning easy and intuitive.

Available in both standard range and high density versions, both models offer a rich suite of unparalleled features to support a broad range of applications such as age verification, security, ID verification, conveyor belts, back room receiving, office automation, loyalty cards and many others that require a combination of high speed performance and aggressive scanning.

PDF417: A new worldwide standard

The PDF417 is the de facto standard 2D symbology around the world. This 2D bar code functions as a high density, high capacity “portable data file,” providing low-cost access to large amounts of information without linking to an external database. A single PDF417 symbol can encode more than a kilobyte of data — up to 100 times the capacity of a linear bar code of similar size. Entire shipping labels, manifests, vehicle registrations and much more all become instantly machine-readable using PDF417. For all of these reasons, the Automotive Industry Action Group (AIAG), American National Standards Institute (ANSI), American Association of Motor Vehicle Administrators (AAMVA), U.S. Department of Defense, AIM USA, AIM Europe, and other leading standards organizations have all selected PDF417 as their 2D symbology.

SPECIFICATION SHEET

SYMBOL SE2223
OEM scan engines

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

Simple Serial Interface (SSI) compatible
Provides a migration path to other SSI scan engines with advanced features/functionality

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, an easy-to-integrate design and expert assistance from our world-class OEM support team enable you to bring your systems to market quickly and cost-effectively.

Choose the best scan engine for your OEM solutions — the Symbol SE2223 Scan Engine — unmatched in reliability, performance and durability. For more information about our scan engines, access our global contact directory at www.symbol.com/contact or visit us on the web at www.symbol.com/oem

Symbol SE2223 Specifications

Physical Characteristics

Dimensions:	.76H x 1.51W x 1.37D (in) 19.3h x 38.35W x 34.8D (mm)
Weight:	1.4 oz./40 g
Configuration:	decoded
Interface:	SSI Control over TTL Serial on a 12 pin ZIF connector

User Environment

Ambient Light:	Artificial: 450 ft. candles/4,844 Lux Sunlight: 8,000 ft. candles/86,112 Lux with correct enclosure
Operating Temp.:	-22° to 140° F/-30° to 60° C
Storage Temp.:	-40° to 158° F/-40° to 70° C
Humidity:	5% to 95% non-condensing
Power:	Input Voltage: ±5 VDC ± 10% Input Current: 230 mA Standby Current: 65 µA

Regulatory

Electrical Safety:	UL, VDE, and CUL recognized component laser
Laser Safety:	Intended for use in CDRH Class II and IEC Class 2 devices
Environmental:	RoHS compliant

Performance Characteristics

Light Source:	Visible Laser Diode 650 nm	
Scan Rate:	640 ± 10% scans/sec. 22 frames/sec.	
Scan Patterns:	Semi Omni, Smart Raster, Omni Directional, Raster (Slab) Pattern	
Scan Angle:	Cyclone	Raster
Horizontal:	34° ± 1.5°	34° ± 1.5°
Vertical:	34° ± 1.5°	12.5° ± 1.5°

Minimum Print Contrast:	35% absolute dark/light reflectance differential (PDF) 25% absolute dark/light reflectance differential (1D)
Symbologies Supported:	All major 1D bar codes and PDF 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, Scan Angle, Pattern Controls

Ranges - 1D codes:

6 mil:	Code 39 - 80% MRD: 2.5 - 6 (in) / 6.35 - 15.24 (cm)
7.5 mil:	Code 39 - 80% MRD: 2.5 - 8 (in) / 6.35 - 20.32 (cm)
13 mil:	100% UPC - 80% MRD: * - 15 (in) / * - 38.10
20 mil:	Code 39 - 80% MRD: * - 20 (in) / * - 50.80
20 mil:	Code 39 - 80% MRD: 2.5 - 14.5 (in) / 6.35 - 36.83 (cm)
40 mil:	Code 39 - 80% MRD: * - 25 (in) / * - 63.5 (cm)
55 mil:	Code 39 - 80% MRD: * - 32 (in) / * - 81.28 (cm)
6.6 mil:	PDF417 - 80% MRD: 2.5 - 7 (in) / 6.35 - 17.78 (cm)
10 mil:	PDF417 - 35% MRD: 4.5 - 10 (in) / 11.43 - 25.40 (cm)
10 mil:	PDF417 - 80% MRD: 4.5 - 11 (in) / 11.43 - 27.94 (cm)
15 mil:	PDF417 - 80% MRD: 4.5 - 16 (in) / 11.43 - 40.64 (cm)

* = near ranges on lower densities (not specified) are largely dependent upon the width of the bar code and the scan angle



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