

Zebra SE960-HP/SE965-HP

Familia compatible: SE965

Fuente: Zebra Technologies

<https://www.zebra.com/us/en/products/spec-sheets/oem/oem-engines/oem-laser-scan-engines/se96x.html>

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Resumen

Adaptive Scanning, aggressive scanning performance and a wide working range work hand-in-hand to enable the rapid and accurate scanning of bar codes workers need to improve productivity. Workers enjoy first time every time dependable scanning on any 1D bar code, regardless of lighting.

Since the tiny SE960-HP/SE965-HP is the size of a sugar cube, it can fit into the most space constrained products for superior product design flexibility. In addition, you can cost-effectively upgrade your products to offer better 1D scanning performance over a much greater range-you can easily swap existing SE-950/SE-955 scan engines with the new SE960-HP/SE965-HP, without changing your existing opto-mechanical or electrical design. We also provide a suite of tools to assist you with integration, from a detailed Integration Guide to Developers Kits. And for many OEM customers, the regulatory process will be shorter, thanks to built-in fault protection mechanisms and laser safety testing that has already been performed.**

A unique combination of features provides worry-free scanning capability for you and your customers while your products remain in the field, providing a low total cost of ownership (TCO) for your customers. The patented Liquid Polymer scan engine is frictionless and will not wear out. The patented die cast chassis delivers the industry's best rating for reliability-dependable operation, even after a shock as great as 2,000G. And we're so confident that we've built the SE960-HP/SE965-HP to last, we offer a lifetime warranty on the motor, protecting your margins and your profitability.

When you choose the SE960-HP/SE965-HP, you get the peace of mind that comes from choosing superior, well-tested technology. Every day, all around the world, our OEM products power millions of devices in thousands of applications across industries. You enjoy award-winning data capture technology, ease of integration, high reliability and superior performance you need to enable the rapid yet cost-effective design of high-quality solutions that meet the needs of your customers-and improve your margins.

Easy integration into product designs; fits in the smallest and most space constrained products.

Especificaciones publicadas

Specifications

Dimensions	0.46 in. H x 0.85 in. W x 0.61 in. D 11.75 mm H x 21.6 mm W x 15.5 mm D
Weight	0.27 oz./7.6 g
Configuration	Undecoded (SE960-HP) Decoded (SE965-HP)
Interface	SE960-HP: DPB and I2C control on a 10-pin ZIF connector SE965-HP: SSI Control over TTL Serial on a 12-pin ZIF connector

Specifications

Scan Angle	Wide (default): 47° (typical) Medium: 35° (typical) Narrow: 10° (typical) Note: The SE960-HP/SE965-HP scan engine does not require margin on either side of the bar code to decode. The 47° scan line provides identical scanning performance to older scan engines with a scan line of 53°.
Skew Tolerance	±40° from normal
Pitch Tolerance	±65° from normal
Roll Tolerance	±35° from normal
Specular Dead Zone	±8°
Optical Resolution	0.005 in. minimum element width
Scan Repetition Rate	104 (± 12) scans/sec (bidirectional)
Print Contrast	Minimum 25% absolute dark/light reflectance measured at 650 nm

Specifications

Amibent Lighting Tolerance	Tolerant to typical artificial indoor and natural outdoor (direct sunlight) lighting conditions. Fluorescent, Incandescent, Mercury Vapor, Sodium Vapor LED5: 450 Ft Candles (4,844 Lux) Sunlight: 8000 Ft Candles (86,111 Lux)
Operating Temperature	-22° F to 140° F/-30° C to 60° C
Storage Temperature	-40° F to 158° F/-40° C to 70° C
Humidity	95% RH, non-condensing
Shock Rating	2000 G
Power	SE-960HP-I200R: Input Voltage: 3.3 VDC +/- 0.3 VDC Input Current: 76 mA typical Standby Current: 12 µA typical Vcc Noise Level: 100 mV peak to peak max SE-965HP-I200R/SE-965HP-E200R: Input Voltage: 3.3 VDC +/- 0.3 VDC Input Current: 78 mA typical Standby Current: 25 µA typical Vcc Noise Level: 100 mV peak to peak max SE-965HP-I205R/SE-965HP-E205R: Input Voltage: 5 VDC +/- 0.5 VDC Input Current: 93 mA typical Standby Current: 60 µA typical Vcc Noise Level: 100 mV peak to peak max SE-965HP-I300R/SE-965HP-E300R: Input Voltage: 3.3 VDC +/- 0.3 VDC Input Current: 60 mA typical Standby Current: 165 µA typical Vcc Noise Level: 100 mV peak to peak max SE-965HP-I305R/SE-965HP-E305R: Input Voltage: 5 VDC +/- 0.5 VDC Input Current: 62 mA typical Standby Current: 234 µA typical Vcc Noise Level: 100 mV peak to peak max
Laser Power (at 650 nm)	Scanning mode: 1.7 mW (nominal peak power) Aiming mode: 0.67 mW

Specifications

Symbol Density/Bar Code Type/W-N Ratio (Barcode Content/Contrast1)	Near/Far
5.0 mil Code 128 (1234 80% MRD)	1.2 in./3.05 cm to 7.7 in./19.56 cm
5.0 mil Code 39; 2.5:1 (ABCDEFGH 80% MRD)	1.2 in./3.05 cm to 12.5 in./31.75 cm
7.5 mil Code 39; 2.5:1 (ABCDEF 80% MRD)	1.1 in./2.79 cm to 18.5 in./46.99 cm
10 mil Code 128 (1234 80% MRD)	1.2 in./3.05 cm3 to 19 in./48.26 cm
13 mil 100% UPC (12345678905 90% MRD)	1.6 in./4.06 cm to 27 in./68.58 cm
15 mil Code 128 (1234 80% MRD)	1 in./2.54 cm3 to 29.5 in./74.93 cm
20 mil Code 39; 2.2:1 (123 80% MRD)	1.4 in./3.56 cm3 to 52 in./132.08 cm
55 mil Code 39; 2.2:1 (CD 80% MRD)	3.4 in./8.64 cm3 to 100 in./254 cm
100 mil Code 39; 3.0:1 reflective (123456 80% MRD)	2 ft./60.96 cm3 to 17 ft./518.16 cm

Specifications

Laser Classification	Intended for use in CDRH Class II/IEC Class 2 devices
Electrical Safety	UL 60950-1; EN/IEC 60950-1; EN/IEC 60825-1
EMI/RFI	EMI-FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B
Environmental	RoHS Compliant

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