SE4500 Array Imager

Sets the Bar for 1D and 2D Scanning Performance

Until today, businesses were required to choose between a high performance laser engine for 1D bar code scanning or a 2D imager that offered expanded functionality — but reduced performance. The revolutionary SE4500 from Zebra eliminates this disparity, offering a comprehensive feature set that completely re-defines imaging technology. Stunning performance on 1D and 2D bar codes combines with the ability to capture still images and video, allowing businesses to deploy a world of new applications. The patent pending fast-pulse illumination and fast sensor shutter speed enable image capture at a full 60 frames per second, delivering outstanding motion tolerance. The result is the extraordinary scanning speed required to boost productivity in many industries — from retail and healthcare to transportation and logistics and public safety.



DECODE OPTIONS PROVIDE MAXIMUM INTEGRATION FLEXIBILITY

Hardware and software decode options allow you to choose the decoder strategy that best fits your product designs. Our PL hardware decoder family allows you to choose the features and form factor you need. Choose the data capture capabilities and performance level your applications require. You can also choose the form factor that best meets the needs of your product designs — a standalone circuit board that connects to your board or a microchip that is soldered to the main circuit board. In addition, we offer a purely software decode option — no hardware required — that allows you to lower your component costs, conserve battery power and improve product margins.

EASY INTEGRATION INTO A WIDE VARIETY OF PRODUCTS

Designed for easy integration, the SE4500 reduces development time and cost, paving the way for highly cost-effective mobility solutions. Low power requirements help preserve ample battery power for a full shift. At less than three tenths of an ounce and approximately a quarter cubic inch, this small, lightweight device can be easily integrated into even the most space-constrained products, including mobile computers, handheld scanners, self-service kiosks, medical and diagnostic instruments, lottery terminals and more.

FEATURES

Provides flexibility for many applications; enables design of devices that offer multiple types of data capture; enables standardization on a single engine to streamline and reduce the cost of product development. Superior performance on 1D and 2D bar codes, improving productivity in a wide variety of applications.

Exceptional motion tolerance

Enables extraordinary scanning speed for all bar codes , increasing throughput and productivity — regardless of application

Unique aiming pattern

Bright central dot ensures quick, accurate scanning — even in bright sunlight

Miniature, lightweight form factor

Less than three tenths of an ounce, adds minimal weight and maximum data capture functionality; tiny size fits easily in the most space-constrained designs

Low power consumption

Ideal for battery powered and other mobile devices

Three engine models to meet wide variety of working ranges and applications

SR (Standard Range) designed for 1D intensive applications with medium to large bar codes; DL (Driver's License optimized) ideal for small to medium bar codes and 2D intensive applications, including U.S. driver's license ID verification; HD (High Density) for very small bar codes

Easy to use

When your products are powered by the SE4500, users will enjoy an unparalleled ease of use. Full omnidirectional scanning eliminates the need to precisely align bar code and imager. A unique aiming pattern with a bright central dot ensures quick, accurate scanning — even in bright sunlight. The result is a highly intuitive scanning function that increases worker productivity, virtually eliminating the need and cost associated with training.

Proven technology you can count on

When you choose the SE4500, 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.

Deploy a world of new applications with the se4500.

For more information, visit or access our contact directory at www.zebra.com/se4500 or access our contact directory at www.zebra.com/contact

SE4500 Specifications

PHYSICAL CHARACTERISTICS

Dimensions	0.46 in. H x 0.85 in. W x 0.64 in. D 11.8 mm H x 21.5 mm W x 16.3 mm D
Weight	0.29 oz./8.22 grams
Interface	Camera Port on 21 pin ZIF connector

PERFORMANCE CHARACTERISTICS

Sensor Resolution	752 x 480 pixels
Field of View	Horizontal: 40°, Vertical: 25°
Skew, Pitch & Roll	Skew Tolerance:+/- 60° Pitch Tolerance: +/- 60° Roll Tolerance: 360°
Focal Distance from Front of Engine	SR: 8 in. DL: 5.3 in. HD: 2.9 in.
Aiming LED (VLD)	655nm Laser
Illumination Element	2x 625nm LEDs

USER ENVIRONMENT

Ambient Light	Max 96,900 lux (direct sunlight)
Operating Temp.	-22° F to 131° F/ -30° C to 55° C
Storage Temp.	-40° F to 158° F/-40° C to 70° C
Humidity	Operating: 95% RH, non-condensing at 55° C Storage: 85% RH, non-condensing at 70° C
Shock Rating	2000 G ±5%, any mounting surface, at -30 and 55° C for 0.85 ±0.05 ms 2500 G ±5%, any mounting surface, at 23° C for 0.85 ±0.05 ms
Power	Operational input voltage: Engine: 3.3V ±10% Current draw with illumination and aiming: 250 mA Current draw, low power mode: 500 µA

DECODE RANGES

SR Focus	
5 mil Code 39	Near: 2.1 in./5.3 cmFar: 7.5 in./19.1 cm
100% UPC/EAN	Near: 1.6 in./4.1 cmFar: 15.5 in./39.4 cm
6.7 mil PDF417	Near: 3.4 in./8.6 cmFar: 7.1 in./18.0 cm
DI focus	
5 mil Code 39	Near: 1.4 in./3.6 cmFar: 7.3 in./18.5 cm
100% UPC	Near: 1.6 in./4.1 cmFar: 12 in./30.5 cm
5 mil PDF417	Near: 2.8 in./7.1 cmFar: 4.5 in./11.4 cm
HD Focus	
3 mil Code 39	Near: 1.6 in./4.1 cmFar: 3.8 in./9.7 cm
4 mil PDF417	Near: 1.8 in./4.6 cmFar: 3.5 in./8.9 cm

REGULATORY

Electrical Safety	UL, VDE and CU recognized laser component
Laser Classification	Intended for use in CDRH Class II/IEC 825 Class 2 devices
Environmental	RoHS Compliant

WARRANTY

Subject to the terms of Zebra's hardware warranty statement, the SE4500 is warranted against defects in workmanship and materials for a period of 15 months from the date of shipment. For the complete Zebra hardware product warranty statement, go to: www.zebra.com/warranty

Ideal For These Applications:

Industries

- Warehousing Management
- Retail
- Transportation
- Healthcare
- Field Mobility

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