

SE55 Advanced Range Engine

Large working range in a small package

Whether the item is in hand or over 40 ft./12.2 m away, the SE55 Advanced Range Scan Engine with IntelliFocus™ technology utilizes intelligent autofocus to quickly determine barcode distance and then capture it. It features a green laser aimer that's up to 7x more visible than red, even in bright sunlight, and Zebra's PRZM Intelligent Imaging Technology to deliver first-time, every-time decoding. Slim enough to fit into most pocketable devices, the SE55 is ideal for today's evolving workflows, especially in retail and warehousing.



Extend Your Reach

IntelliFocus technology helps you scan near and far

IntelliFocus™ technology easily captures 1D and 2D barcodes in a variety of conditions over a wide working range, in hand or across the room. With adjustable illumination and intelligent autofocus, users do not have to sacrifice scanning speed for working range.

Advanced working range

An extraordinary working range — from 2.2 in./5.6 cm to over 40 ft./12.2 m. — creates a perfect integration opportunity into a variety of applications, from warehouses to front-of-store. That means workers don't have to switch devices, bend, or climb ladders to read barcodes, making scanning safer and more efficient.

PRZM Intelligent Imaging

Zebra's exclusive PRZM software dramatically accelerates decoding processes for first-time, every-time scanning of virtually any 1D and 2D barcode in almost any condition — including barcodes that are poorly printed, scratched, dirty, damaged, or under shrinkwrap or low contrast.

Ease of Use

Highly visible green laser aimer

The SE55 includes an innovative wide aim pattern green laser aimer with a wide targeting pattern that's up to 7x more visible than a red aimer dot. This means users can more quickly and accurately target barcodes at a variety of distances and lighting conditions, which saves time and prevents unintended scanning data.

4MP high resolution sensor

The SE55's 4 megapixel sensor lets workers both decode barcodes and capture high resolution images rather than switching to a separate camera for image or document capture. Integrate a single camera to simplify workflows and eliminate the cost of a second camera sensor in your devices.

Rugged construction and wide operating temperatures

With a high shock rating and a wide operating temperature range, the SE55 is purpose-built for durability wherever barcode scanning is required. The integrated, self-contained design has fewer failure points than most competitive engines, so users can be confident about the long-term reliability of their devices.

SE55 Advanced Range Scan Engine provides IntelliFocus™ barcode capture technology in a small package for mobile device integrators.

For more information, please visit www.zebra.com/se55

Easy to Integrate

Choose your decoding strategy

With both hardware and software versions available, you can choose the decoder strategy that best fits your product designs.

For hardware decoding, the PL5000A MIPI miniature decoder board fits in the smallest of products, while the PL5000C Ball Grid Array can be soldered onto your circuit board to more deeply embed Zebra scanning functionality into your products — and take up less space.

The software-only decoding option doesn't require any space, so it can fit into any design. There is no hardware to purchase and integrate, reducing cost and time to market — and no hardware to power, extending battery cycle times on the host device.

Low height design

Retail devices are growing slimmer, while at the same time being asked to do more than ever. At less than 7.5mm high, the SE55 easily integrates with most modern portable devices while maintaining excellent scan distance.

Adapt to evolving workflows

SE55 all-in-one solution is ideal for today's changing workflows. Increase capabilities in retail, where front-of-store areas now act as micro-fulfillment centers for buy online, pick up in store transactions.

For backroom and warehouses, this compact scan engine is perfect for all tasks, from picking small items in bins to receiving shrinkwrapped pallets outside, to putting them away with a forklift.

For those uses and more, the SE55 is flexible enough to work in almost any industrial or retail application.

Specifications

Physical Characteristics	
Dimensions	7.2 mm H x 26.4 mm W x 14.9 mm D
Weight	5.4g +/- 0.10g
Interface	Camera Port on 24-p in board-to-board connector. Supports MIPI interface
Performance Characteristics	
Sensor Revolution	2688 x 1520
Adaptive Field of View	Maximum Horizontal: 37°, Maximum Vertical: 21°
Skew, Pitch, and Roll	Skew Tolerance: ±60° Pitch Tolerance: ±60° Roll Tolerance: 360°
Focal Distance	From front of engine: 3 in. to infinity
Aiming	Green Laser 520 nm
Illumination	2 Warm-White LED
User Environment	
Ambient Light	Max 107,639 lux (direct sunlight)
Operating Temp.	-30° C to 60° C
Storage Temp.	-30° C to 70° C
Humidity	Operating: 95% RH, non-condensing at 122° F/50° C Storage: 85% RH, non-condensing at 158° F/70° C
Shock Rating	2500 ± 100 g, ½ sine, 0.70 ± 0.1 msec shock at 20 °C. 2000 ± 100 g, ½ sine, 0.85 ± 0.1 msec shock at -30° C and at 60° C.
Power	Operational input Voltages: • VCC_ENGINE: 3.135V to 3.6V • VDD_IO_HOST: 1.71V to 3.6V • VCC_ILLUM: 2.9V to 5.5V
	Operating Current: • VCC_ENGINE + VDD_IO_HOST (3.3V): 130mA Typical • VCC_ILLUM (3.3V) Up to 480mA Typical; (5V) up to 400mA Typical
	Current Draw in Low-Power Modes (Idle/Low Power) = 65mA/<3mA Typical

Decode Ranges (Typical) ¹	
Barcode Type	Distance
3 mil Code 39	Near Distance: 2.7 in./6.9 cm Far Distance: 16.2 in./41.1 cm
5 mil Code 39	Near Distance: 2.5 in./6.4 cm Far Distance: 26.6 in./67.6 cm
5 mil PDF417	Near Distance: 2.8 in./7.1 cm Far Distance: 19.6 in./49.8 cm
6.7 mil PDF417	Near Distance: 2.6 in./6.6 cm Far Distance: 25.6 in./65.0 cm
10 mil DataMatrix	Near Distance: 2.2 in./5.6 cm Far Distance: 27.1 in./68.8 cm
100% UPC (13 mil)	Near Distance: 2.5 in./6.4 cm Far Distance: 71 in./180 cm
15 mil Code 128	Near Distance: 7.2 in./18.2 cm ² Far Distance: 72 in./182.9 cm

Decode Ranges (Typical) ¹	
Barcode Type	Distance
20 mil Code 39	Near Distance: * Far Distance: 109 in./276.9 cm
55 mil Code 39	Near Distance: * Far Distance: 293 in./744.2 cm
100 mil Code 39	Near Distance: * Far Distance: 554 in./1407.2 cm
100 mil DataMatrix	Near Distance: * Far Distance: 270 in./685.8 cm
Regulatory	
Classification	Intended for use in CDRH Class II laser/IEC 60825-1 Class 2 laser devices
Electrical Safety	Complies with IEC/EN 62368-1:2014 and UL 62368- 1 Second Edition, 2014-12-01 and CAN/CSA C22.2 No. 62368-1-14, Second Edition, 2014-12-01
Environmental	RoHS Compliant

Footnotes
1. Printing resolution, contrast and ambient light dependent. 2. Field of view limited.
Warranty
Subject to the terms of Zebra's hardware warranty statement, the SE55 are 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 .

Markets and
Applications

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