ZEBRA SE4750 / SE4757

NEXT GENERATION INTELLIGENT IMAGING

Reset the bar on imaging performance and flexibility

The Zebra SE4750 represents a new generation of imagers that provide unparalleled performance on just about any type of data imaginable — from 1-D and 2-D bar codes to photos and fully searchable and editable legal, letter, A4 and A5 documents. Zebra's proprietary PRZM (pronounced "prism") Intelligent Imaging technology, megapixel sensor and advanced optics work together to set the SE4750 in a class of its own. While competitive systems rely on decode software to perform all image processing, PRZM changes the game by offloading a portion of that processing to the source of the image — the scan engine itself — reducing unnecessary delay and delivering a faster data capture experience. This unique approach helps businesses in just about any industry improve user productivity and business efficiency.

Support for the next generation MIPI interface

Unlike its major competitors, the SE4750 supports the emerging MIPI interface as well as traditional parallel interfaces. Now, you can utilize the latest processors in your designs without sacrificing cost, integration time, or precious space for incremental hardware components. The result? Faster time to market and reduced costs.

Extraordinary performance in various applications

The standard scanning range on the SE4750 Standard Range is anything but standard. Users can capture data that is farther than 36 in./92 cm away — over 30 percent farther than its predecessors. The SE4750 Mid-Range expands the working range even further, to more than 20 feet / 6 m. With a wide field of view, the SE4750SR also enables reading of larger bar codes, as well as simultaneous capture of multiple bar codes. The SE4750 family is completed with the SE4750DP, which can capture DPM codes regardless of size, surface, contrast or density — including the most challenging mark, dot peen, as well as laser etch, ink mark, chemical etch, inkjet mold, cast and thermal spray.

Advanced document capture

Zebra's integrated Intelligent Document Capture technology makes it easy to capture documents that are highly legible— and searchable. With the single press of a button, this intelligent software determines when conditions are ideal to capture the highest quality image, taking the guesswork away from users. Once the image is captured, it is automatically analyzed and up to eight functions are performed as needed. In a fraction of a second, without any user intervention, shadows and noise are removed, and images are de-skewed, rotated, brightened, sharpened and cropped.

Superior integration flexibility

At less than nine grams (three tenths of an ounce) and approximately a quarter cubic inch, this small, lightweight imager can be easily integrated into even the most space-constrained products, from mobile computers, handheld scanners and self-service kiosks to medical and diagnostic instruments and lottery terminals. In addition, you have the flexibility to choose the decoder strategy that best fits your product designs — software or hardware. Our software decode option reduces system power requirements and integration space in your OEM device. Hardware options include a standalone circuit board that connects to your board, a microchip you can solder directly to your mother board, or the SE4757 that includes an attached decoder board for a plug-and-play imaging solution.

Easily upgrade your existing designs to the latest imaging technology

Since the SE4750 uses the same form factor and mounting pattern as our standard-setting SE4500 imager, you can easily migrate your existing equipment to this next generation imaging technology, infusing your designs with the ability to capture more types of data, faster than ever.

Proven technology you can count on

When you choose the SE4750, 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, enabling the rapid, cost-effective design of more profitable high-quality data capture solutions.

EMPOWER YOUR DESIGNS WITH NEXT GENERATION IMAGING.

For more information, please visit us on the web at www.zebra.com/se4750 or access our global contact directory at www.zebra.com/contact

Features

Zebra-exclusive PRZM intelligent imaging technology
Offloads a portion of the processing from the decode software to the scan engine, reducing processing time and enabling faster data capture.

Support for MIPI and parallel interfaces
Reduces integration time and cost by eliminating components.

Comprehensive data capture capabilities
Capture 1-D and 2-D bar codes in milliseconds, from high-resolution photos, to letter, legal, A4 and A5 documents that are fully searchable and editable.

Extraordinary working range
Capture data farther than 20 ft /6 cm away.

SR Model with extra wide field of view
Easy close-up reading of large bar codes as well as multiple bar codes.

DP Model for scanning Direct Part Marks
Capture dot-peened and etched codes on metal, plastic, glass, and other surfaces with ease.

Exceptional motion tolerance
Delivers extraordinary scanning speed on all bar codes, increasing throughput and productivity in virtually any application.

Pick list mode
Enables users to easily select a single bar code to capture on a field of bar codes.

Superior document processing
With the press of the shutter button, Zebra's Intelligent Document Capture software ensures the capture of the highest quality electronic documents; automatically identifies and corrects image quality issues; creates the smallest possible file size without impacting legibility; and attaches the image to the appropriate record.

Miniature, lightweight form factor
Adds minimal weight and maximum data capture functionality; tiny size fits easily in the most space-constrained designs.

Omnidirectional scanning for unparalleled ease of use
No need to ever align the bar code and imager for highly intuitive and rapid bar code capture.

Multiple decode options with the same great Zebra scanning performance
Increase design flexibility with your choice of software only or hardware decode — available on a separate circuit board, a microchip or an all-in-one plug-and-play solution SE4757 with attached decoder board .

Multiple engine models to meet wide variety of application requirements
Choose among various options to best suit your application: aimer (LED or laser), focus (Standard Range, Mid-range, DPM, interface (parallel or MIPI), and decoded/undecoded.

SE4750 / SE4757 Specifications

PHYSICAL CHARACTERISTICS

Dimensions	**SE4750SR:** 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 **SE4750MR:** 0.46 in. H x 0.85 in. W x 0.65 in. D 11.8 mm H x 21.5 mm W x 16.5 mm D **SE4757:** 0.76 in. H x 1.53 in. W x 1.10 in. D (19.4mm H x 38.8mm W x 28.0mm D) **SE4750DP:** 0.46 in. H x 0.85 in.W x 0.68 in. D 11.8 mm H x 21.5 mm W x 17.3 mm D
Weight	**SE4750:** 0.29 oz./8.22 grams **SE4757:** 0.53 oz./15.0 gramss
Interface	**SE4750:** Camera Port on 21 pin ZIF connectorr **SE4757:** 31 pin ZIF connector/Micro USB

PERFORMANCE CHARACTERISTICS

Sensor Resolution	1280 x 960 pixels
Field of View	SR: Horizontal: 48°, Vertical: 36.7° MR: Horizontal: 31°, Vertical: 23° DP: Horizontal: 31°, Vertical: 23°
Skew Tolerance	±60°
Pitch Tolerance	±60°
Roll Tolerance	360°
Focal Distance from Front of Engine	SR: From front of engine: 7.38 in. MR: From front of engine: 14.2 in. DP: From front of engine: 3.0 in.
Aiming LED (VLD)	655nm Laser
Illumination	2X Warm white LEDs

USER ENVIRONMENT

Ambient Light	Max 96,900 lux (direct sunlight)
Operating Temp.	-22° F to 140° F/ -30° C to 60° C (measured at engine chassis)
Storage Temperature	-40° F to 158° F/-40° C to 70° C
Humidity	Operating/Storage: 95% RH, non-condensing at 60° C
Shock Rating	2000 G ±5%, any mounting surface, at -30 and 60° C for 0.85 ± ms 2500 G ±5%, any mounting surface, at 23° C for 0.70 ±0.10 ms
Power	**SE4750:** Operational input voltage Engine: VCC= 3.3 +/-0.3V; VCC_ILLUM= 3.0 to 5.5V; VDD_IO_ HOST= 1.7 to 3.6V Total Current Draw (VCC= VCC_ILLUM=VDD_IO_ HOST= 3.3V) with Illumination and aiming on, 440maRMS Current draw in low power (hibernate mode) = 360uA (standby mode) = 15uA **SE4757:** Host Supply Voltage 3.3V+/-0.3V Total current draw 500mA RMS Host Supply Voltage 5V+/-0.5V Total current draw 380mA RMS Low Power current 15mA

REGULATORY

Laser Classification	Laser Aim Models: Intended for use in CDRH Class II/IEC 825 Class 2 devices LED Aim Models: Classified as Exempt Risk Group per IEC/EN 62471
Electrical Safety	Laser Aim Models: UL, VDE and CU recognized laser component LED Aim Models: UL Recognized Component which complies with IEC/EN 60950-1
Environmental	RoHS Compliant

DECODE RANGES (TYPICAL WORKING RANGES*)

SR Focus

3 mil Code 39	2.8 in./7.1 cm (Near)	6.2 in./15.8 cm (Far)
5 mil Code 128	2.3 in./5.8 cm (Near)	8.7 in./22.1 cm (Far)
5 mil PDF417	3.0 in./7.6 cm (Near)	8.1 in./20.6 cm (Far)
6.67 mil PDF417	2.2 in./5.6 cm (Near)	10.6 in./26.9 cm (Far)
10 mil DataMatix	2.4 in./6.1 cm (Near)	10.6 in./26.9 cm (Far)
100% UPCA	1.6* in./4.1* cm (Near)	23.0 in./58.4 cm (Far)
15 mil Code 128	2.4* in./6.1* cm (Near)	25.2 in./64.0 cm (Far)
20 mil Code 39	1.6* in./4.1* cm (Near)	36.3 in./92.2 cm (Far)

MR Focus

5 mil Code 128	7.4 in./18.8 cm (Near)	16.0 in./40.6 cm (Far)
5 mil PDF417	8.1 in./ 20.6 cm (Near)	13.1 in./ 33.3 cm (Far)
7.5 mil DataMatrix	8.3 in./ 21.1 cm (Near)	12.8 in./ 32.5 cm (Far)
10 mil DataMatrix	7.0 in./ 17.8 cm (Near)	17.0 in./ 43.2 cm (Far)
100% UPCA	2.3* in./ 5.8* cm (Near)	38.0 in./ 96.5 cm (Far)
15 mil Code 128	4.0* in./ 10.2* cm (Near)	40.0 in./ 101.7 cm (Far)
20 mil Code 39	2.1* in./ 5.3* cm (Near)	54.0 in./ 137.2 cm (Far)
100 mil Code 39	11.0 in./ 27.9 cm (Near)	172.0 in./ 436.9 cm (Far)
160 mil DataMatrix	11.5 in./ 29.2 cm (Near)	138.0 in./ 350.5 cm (Far)

DP Focus

3 mil Code 39	1.7 in./4.3 cm (Near)	4.3 in./10.9 cm (Far)
5 mil PDF417	1.7 in./4.3 cm (Near)	4.3 in./10.9 cm (Far)
6.67 mil PDF417	1.7* in./4.3 cm (Near)	4.7 in./11.9 cm (Far)
5 mil Data Matrix	1.9 in./4.8 cm (Near)	4.0 in./10.2 cm (Far)
10 mil Data Matrix	1.6 in./4.1 cm (Near)	4.9 in./12.4 cm (Far)
5 mil QR Code	1.9 in./4.8 cm (Near)	4.0 in./10.2 cm (Far)
10 mil QR Code	1.1 in./2.8 cm (Near)	5.0 in./12.7 cm (Far)
100% UPCA	2.4* in./6.1cm (Near)	7.3 in./18.5 cm (Far)

WARRANTY

Subject to the terms of Zebra's hardware warranty statement, the SE4750/SE4757 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: http:// www.zebra.com/warranty

Specifications subject to change without notice.

* All decode ranges based on Grade A, photographic quality barcodes printed on paper.