RS5100 Bluetooth™ Wearable Scanner

The ‘go-everywhere’ wearable scanner built for the enterprise

Wearable scanners can provide the hands-free scanning your workforce needs to maximize productivity. But today’s workers have high expectations for wearable devices — a modern design, a minimal footprint, so intuitive that virtually no training is required, plus point-and-shoot scanning simplicity on every barcode. Your business requires a design that’s just as at home in customer-facing areas as the warehouse, wearable options for maximum use case flexibility, a rugged design to ensure a long lifecycle with a low Total Cost of Ownership (TCO), scanning options that match the needs of your environment, plus backroom accessories that reduce management time and cost. Now, you can have it all with the RS5100 Wearable Scanner. A comfortable, featherlight-yet-rugged industrial design that is at home anywhere in your facility. Zebra’s advanced scan engines for unmatched scanning performance. Five interchangeable wearing styles for user comfort and application flexibility. And features that drive ease-of-use and manageability to a new level.

Superior Ergonomics, Ease-of-Use and Application Flexibility

Tiny and Practically Weightless For Extreme Comfort
The small, light, low-profile RS5100 is purposefully understated at just over two ounces and two cubic inches — and the low-profile prevents obstruction when reaching into tight locations.

Five Interchangeable Wearing Styles
All mounting accessories are interchangeable — swap at any time to improve user comfort, address user preference or deploy in a different use case. Give every hand a snug, comfortable and secure custom fit with the new Enterprise Hand Mount accessory, which offers a range of sizes for right and left hands. And users can adjust the scanner position on the hand to achieve the perfect balance and optimal scan angle for the ultimate in comfort and user productivity. For workers who prefer to wear the scanner like a ring, there is a single finger mount with three trigger options — single, double and top-mounted. The single trigger rotates between right and left sides, allowing users to choose and easily switch scanning hands. The double trigger enables workers to change hands on the fly. The industry-first top-mounted trigger allows the RS5100 to be rotated to the side of the finger, eliminating any protrusion above the hand. A one-size-fits-all back of hand mount allows workers to reach into small spaces, is ambidextrous and easily adjustable to accommodate gloves. And a retracting lanyard trigger worn around the neck or on a belt keeps the scanner handy yet out of the way — ideal for occasional scanning.

Freedom From Cords and Cables
With Bluetooth, there’s no cable to the host device for workers to manage — hands-free scanning improves comfort, usability and productivity.

Programmable LEDs Provide Line-on-Sight User Feedback
Multiple LEDs on the back of the RS5100 can blink to indicate whether a scan was successful and more.

Prevent the Spread of Germs With Personal Trigger Assemblies
Since the trigger assembly is the only part of the RS5100 that touches skin, we created a modular two-piece design that separates the trigger assembly from the scanner body, providing the option to give each worker their own trigger.

GOOD DESIGN AWARD® WINNER

The next generation high-performance wearable scanner ready for any environment — from the warehouse and distribution center to the retail front room.
For more information, visit www.zebra.com/rs5100

Unmatched Versatility and Flexibility

Use With Practically Any Bluetooth-Enabled Device

Pair the RS5100 with a practically any Bluetooth host device, including smartphones, tablets and PCs. To unlock the RS5100's more advanced features, pair to a Zebra enterprise-class mobile device — including wearable, handheld and vehicle mount.

Just Tap for Instant Pairing

With NFC, workers can simply tap the RS5100 on NFC-enabled Zebra devices, such as the WT6300 wearable computer and the TC52 handheld mobile computer. No need to scan a pairing barcode or open Bluetooth settings to identify and select the device.

An Advanced Removable and Replaceable Battery — and More

The RS5100 is the only wearable scanner in its class that can support back-to-back shifts without recharging — just swap the batteries to keep it out of the charger and on the fingers of your workers. Choose from two PowerPrecision+ batteries. The standard battery lasts more than a full shift, providing 12 hours of power and 14,400 scans on a single charge. The extended battery powers longer shifts, enables operation in cold environments and provides a longer battery lifecycle. And with PowerPrecision Console, a no-cost Mobility DNA tool, you can spot and discard aging batteries that can no longer hold a full charge, ensuring that your RS5100 wearable scanners always have a healthy battery — and workers won't run out of power during a shift.

Choose the Scan Engine That Best Meets Your Needs

The SE4710 delivers high performance scanning with red illumination and an orange LED aiming spot. The global shutter and high-end lens in the SE4770 offer improved scan range compared to the legacy RS507X, for intensive scanning applications. The SE4770's crisp red laser cross-hair aimer offers high visibility and pinpoint accuracy.

Flexible Notifications for Any Environment

Choose from visual LED lights and/or an audible beeper to provide verification of a successful scan. The optional vibrating double trigger alerts workers to exception cases in noisy back rooms.

Best-in-Class Scanning Performance

Fast and Accurate Capture of Virtually Any Barcode

Both scan engine options enable the near instant capture of even damaged, dirty and poorly printed 1D and 2D barcodes through PRZM Intelligent Imaging, a megapixel sensor and Zebra's superior algorithms.

Wider Field of View

Now, it's easier to scan barcodes, in particular larger barcodes. The wider field of view creates a bigger 'sweet spot', greatly minimizing the need to constantly adjust the distance between the scanner and the barcode.

Rugged and Ready for the Enterprise

Rugged Scanner Features

The RS5100 offers a best-in-class rugged design, with sealing, a drop specification and a tumble specification, ensuring reliable operation. It's designed to handle drops, bumps, and even a high-pressure hose down. And the metal buckle and nylon straps on the finger mount won't wear out or stretch like the hook-and-loop fasteners in some competitive devices, which only last a few months.

Long Life Triggers

The trigger is rated for millions of actuations (trigger presses) — instead of the competition's few hundred thousand actuations. The result — less frequent replacement of triggers and a lower TCO.

Minimize Downtime With a Maximum Number of Replaceable Elements

The removable and swappable battery and trigger assembly are designed to minimize trips to the service depot and maximize lifecycle. And since the charge contacts and vibration engine are also integrated into the trigger assembly, you can replace all three components right on site, cost-effectively — and with virtually no down time.

Protection From Electrostatic Shock

The RS5100 is built to handle higher levels of electrostatic discharge than competitive products — a common issue with concrete flooring that could easily destroy sensitive scanner electronics.

Innovative Accessories Simplify the Backroom and Reduce Management Time and Cost

Save Time and Money With High Capacity Chargers

High capacity ShareCradles can charge 20 RS5100 ring scanners or 40 RS5100 batteries, cost-effectively reducing backroom cost and management time. For example, use just five high-capacity RS5100 ShareCradles to charge 100 scanners — instead of 100 USB charging cables.

Specifications

Physical Characteristics

Dimensions	2.67 in. L x 1.10 in. W x 0.83 in. D (2.4 cubic inches) 61 mm L x 28 mm W x 21 mm D
Weight	2.47 oz./70 g
Power	480 mAh standard; 735 mAh extended; PowerPrecision+; Li-ion battery pack

Performance Characteristics

Optical Resolution	1280 x 960 pixels
Roll	360°
Pitch	±60°
Skew	±60°
Aiming Element	SE4710: 610 nm LED SE4770: 655 nm Laser
Illumination Element	SE4710: 1 Hyper Red 660 nm LED SE4770: 1 Hyper Red 660 nm LED or 1 Warm-White LED
Field of View	SE4710: Horizontal: 42°, Vertical: 28° SE4770: Horizontal: 48°, Vertical: 30°
Ambient Light Immunity (from total darkness	Max 107,639 lux (direct sunlight)
Supported 1D Symbologies	Code 39, Code 128, Code 93, Codebar/NW7, Code 11, MSI, UPC/EAN, I 2 of 5, Korean 3 of 5, GSI DataBar, Base 32 (Italian Pharma)
Supported 2D Symbologies	PDF417, Micro PDF417, Composite Codes, TLC-39, Aztec, DataMatrix, MaxiCode, QR Code, Micro QR, Chinese Sensible (Han Xin), Postal Codes
Supported OCR Symbologies	OCR-A, OCR-B

User Interface

LED	4 RGB LEDs located at the back side of the device (programmable)
Beeper	Up to 85 dBA @ 10 cm from the back of the device beeper port
Restore Key	User accessible for emergency warm boot and Bluetooth reconnect (after disconnect timeout)
Scan Triggering	Manual ambidextrous trigger

User Environment

Operating Temp.	32° F to 122° F/0° C to 50° with standard battery -4° F to 122° F/-20° C to 50° with extended battery
Storage Temp.	-40° F to 140° F/-40° C to 60° C including battery -40° F to 158° F/-40° C to 70° C excluding battery
Humidity	5% - 95% non condensing

SE4710

Symbology/Resolution	Near/Far
Code 39: 4 mil	3.3 in./8.4 cm to 8.8 in./22.4 cm
Code 128: 5 mil	2.8 in./7.1 cm to 8.2 in./20.8 cm
Code 39: 5 mil	2.0 in./5.08 cm to 13.5 in./34.3 cm
PDF417: 5 mil	3.1 in./7.9 cm to 8.4 in./21.3 cm
DataMatrix: 10 mil	2.9 in./7.4 cm to 10.1 in./25.7 cm
UPCA: 100%	1.8 in./4.62 cm to 26.0 in./66.0 cm
Code 39: 20 mil	2.0 in./5.082 cm to 30.0 in./76.2 cm

SE4770

Symbology/Resolution	Near/Far
Code 39: 3 mil	3.0 in./7.6 cm to 5.8 in./14.7 cm
Code 128: 5 mil	2.3 in./5.8 cm to 9.8 in./24.9 cm
PDF417: 5 mil	3.0 in./7.6 cm to 7.9 in./20.1 cm
PDF417: 6.67 mil	2.5 in./6.4 cm to 10.1 in./25.7 cm
DataMatrix: 10 mil	2.1 in./5.3 cm to 11.0 in./27.9 cm
UPCA: 100%	1.6 in./4.1 cm to 24.9 in./63.2 cm
Code 128: 15 mil	2.4 in./6.1 cm to 27.8 in./70.6 cm
Code 39: 20 mil	1.6 in./4.1 cm to 36.1 in./91.7 cm
QR: 20 mil	1.1 in./2.8 cm to 17.5 in./44.5 cm

Data Capture

Scanning Options	SE4710 or SE4770 1D/2D standard range imaging engines *Twice the scanning range of the RS507X

Peripherals and Accessories

4-slot and 20-slot ring charger; 8-slot and 40-slot battery charger; enterprise hand mount, back of hand mount; single finger mount with three trigger options—single, double and top; lanyard; spare trigger mounts

Wireless PAN

Bluetooth	Class 1 and 2, Bluetooth v4.0 (RS51B0-xxxxxx) or v5.2 (RS51C0-xxxxxx) both with Bluetooth Low Energy (BLE) Supporting profiles: Serial Port Profile (SPP), Human Interface Device Profile (HID), Service Discovery Application Profile (SDAP)

Markets and Applications

Warehousing/Distribution

- Picking
- Sorting and put away
- Packing

Transportation and Logistics

- Sortation
- Picking
- Truck loading
- Shipping
- Receiving

Manufacturing

- Inventory management
- Replenishment
- Sortation
- Assembly
- Finished goods verification

Retail

- Click and collect
- In-store inventory
- Price mark-downs

Hospitality

- Sorting and picking

Field Service

- Route accounting
- Package verification

User Environment

Drop Spec.	Multiple 6 ft./1.8 m drops to concrete over the operating temperature range
Tumble Spec.	1,000 1.64 ft./0.5 m tumbles
Sealing	IEC 60529: IP65
Vibration	Sine 5-2000Hz, 4g peak, 1 hour per axis; Random 20-2000Hz, 6g RMS or 0.04g2/Hz, 1 hour per axis
Pairing	NFC; Tap to Pair
Electrostatic Discharge (ESD)	±15kVdc air discharge; ±8kVdc contact discharge

Warranty

Subject to the terms of Zebra's hardware warranty statement, the RS5100 is warranted against defects in workmanship and materials for a period of 1 (one) year from the date of shipment. For complete warranty statement, go to: www.zebra.com/warranty

Regulatory

Environmental Compliance	RoHS Directive 2011/65/EU; Amendment 2015/863 REACH SVHC 1907/2006

Recommended Services

Zebra OneCare Essential™ and Select™: Maximize Zebra device availability, device value and operational efficiency with these fully-featured Maintenance Plans that set the industry bar for support.

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