DS9900 Series for Retail

Boost Productivity at the Point of Sale With the Ultimate In Performance and Design

The point of sale is your last opportunity to make a good impression. With the DS9900 Series, you can give shoppers the checkout experience they expect — short lines, a speedy transaction and attentive service. A one-of-a-kind hybrid design provides maximum flexibility, offering both handheld and hands-free scanning. While other products are handheld scanners retrofitted with a base, Zebra's award-winning Industrial Design team created the DS9900 Series from the ground up for both handheld and hands-free use. You get Zebra's industry-leading scanning technology, seamless switching between modes and superior ease of use, along with a wide range of innovative features that boost productivity. An RFID model combines a barcode scanner and RFID reader to extend the benefits of RFID to your point of sale. Empower your checkout stands with the DS9900 Series Hybrid Presentation Imager — the ultimate in performance and design.

Industry-best performance

Scan it all with virtually no exceptions

The DS9900 Series combines an 800 MHz microprocessor, a high-resolution megapixel sensor and Zebra's exclusive PRZM Intelligent Imaging technology for unparalleled performance on 1D, 2D and Digimarc™ barcodes. Problematic barcodes won't slow down your checkout lanes. The DS9900 Series can instantly capture dense, poorly printed, damaged, crinkled, faded, distorted, low-contrast, and glossy printed barcodes, as well as electronic barcodes on dimly lit mobile phone displays.

Rapid-fire scanning to keep your lines moving

With the widest field of view in its class and an advanced illumination system, the DS9900 Series provides the near instant barcode capture you need to keep the busiest checkout lines moving. You get one of the industry's top first-pass read rates — up to 240 in./610 cm per second. A large field of view makes presentation scanning easier than ever, enabling associates to focus on your shoppers rather than positioning items.

Bring RFID to your point of sale

If you are already benefiting from RFID in your supply chain, you can close the RFID loop by capturing RFID-tagged merchandise at the POS with the RFID model. Checkouts are easier than ever, since associates can scan multiple items at once without line of sight. Capturing RFID tags provides the real-time inventory visibility needed for timely re-ordering and trending analysis. The reader operates with just 5 VDC and does not require an external power supply. And complimentary RFID data conversion software lets you read RFID tags without modifying your existing POS application.

Purpose-built for hybrid scanning

Dynamic switching between hands-free and handheld modes

A patent-pending capacitive touch sensor and accelerometer work together to instantly switch to handheld mode as soon as an associate picks up the scanner. There are no mechanical components to wear out, providing fail-proof switching throughout the scanner's life.

Give your shoppers the checkout experience they deserve with the DS9900 series.

For more information, visit www.zebra.com/ds9900seriesretail

Hybrid ergonomics

The ergonomic handle is comfortably weighted and balanced, remarkably easy to pick up and aim in handheld mode. In presentation mode, the integrated adjustable stand offers a sturdy, compact solution that fits into space-constrained areas and frees up more space for impulse buys.

Two scanners in one

Handheld and presentation modes have different requirements for scanning. That's why the DS9900 Series is purpose built for both modes. In presentation mode, the scan range is limited to prevent unintentional scanning of nearby items. In handheld mode, the scan range is extended up to 24 in./62 cm to easily reach items in the cart.

Durable and Ready for Life at the Checkout Stand

Day-in, day-out dependability

The DS9900 Series delivers the day-in, day-out dependable operation you need in your checkout lanes. Its proven single circuit board design eliminates a common point of failure, substantially increasing durability. Image quality is protected by a patented double-sealed optical scanning system, ensuring that the 'eye' of the DS9900 Series always captures the sharpest possible barcode for fast and reliable decoding. And the recessed scan window protects against smudges, dirt and scratches.

Designed to survive spills and drops

With IP52 sealing and elevated electronics, accidental spills and dust won't impact operation[1]. Inadvertent drops aren't a problem either — you can depend on reliable operation, even after multiple 5 ft./1.5 m drops to concrete and 2,000 consecutive 1.5 ft./0.5 m tumbles[2].

Boost Productivity with Zebra Innovations

Deactivate EAS tags while scanning

Optional EAS support allows associates to deactivate Checkpoint EAS tags while scanning the price, boosting productivity at the checkout and preventing erroneous alarms.

Doubles as a document scanner

With a single press of the scan trigger, Zebra's Intelligent Document Capture can capture a high-resolution image of checks and full page documents. Smart software automatically compensates for variations in lighting and squares up the image for optimum clarity.

Streamline data collection with OCR

Support for OCR transmits scanned text to your application to expedite the collection of data from passports, ID cards and more.

Capture multiple barcodes with one press of the scan trigger

With Multi-Code Data Formatting (MDF), the DS9900 Series can scan multiple barcodes with a single trigger pull and transmit only the barcodes you need, in the order your application expects.

Identify poor-performing barcodes

Zebra's ScanSpeed Analytics provides detailed performance metrics on every barcode captured — enabling you to identify and eliminate poor performing barcodes that slow down the checkout process. You can also view the number of decodes performed in handheld and hands-free mode to better understand how associates are using the scanner.

Single out one barcode from many

With Zebra's Preferred Symbol, the DS9900 Series can capture and output only the preferred barcode, so associates no longer have to physically cover nearby barcodes before scanning.

Commission RFID tags on returns and more

In addition to reading RFID tags to complete a purchase, the DS9900 Series RFID model is capable of writing data to RFID tags — enabling staff to quickly commission tags on new inventory items and returned goods for faster processing.

Industry-preferred Management Tools

Effortless deployment

The DS9900 Series couldn't be easier to setup. With support for nearly 100 languages, it's ready to use in your corner of the world. Right out of the box, the scanner is configured for the most common applications and auto-host detect cables automatically select the right host interface — just plug in the scanner and you're ready to go. And the DS9900 Series is compatible with Zebra DS9808 cables to leverage your existing accessory investment.

Easily manage all of your scanners with powerful complimentary tools

With 123Scan, you can easily create configuration barcodes to program scanners. If your scanners are in multiple locations across the country or around the world, with Scanner Management Service (SMS), you can configure and update the firmware for any DS9900 Series device that is plugged into the host — no depot staging or user action is required — such as the scanning of a configuration barcode.

Easy application development

Get everything you need to easily integrate scanning into your business applications with our Scanner Software Development Kits (SDKs) for Windows, Android, iOS and Linux. These SDKs provide documentation, drivers, test utilities and sample source code. And the RFID model comes with Zebra's SDK and a sample application that enables it to read data from a barcode and write that data to an RFID tag — lowering the cost and complexity of implementing RFID.

Specifications

Physical Characteristics

Dimensions	DS9908: 8.0 in. H x 3.7 in. W x 5.2 in. D 20.3 cm H x 9.4 cm W x 13.2 cm D DS9908R: 8.0 in. H x 3.9 in. W x 5.75 in. D 20.3 cm H x 9.9 cm W x 14.6 cm D
Weight	DS9908: 11.6 oz./330.0 g DS9908R: 14.8 oz./420.0 g
Input Voltage Range	4.5 to 5.5 VDC Host Powered; 4.5 to 5.5 VDC External Power Supply
Current	Operating current at nominal voltage (5.0V): DS9908: 321 mA (typical) DS9908R: 400 mA (typical) Standby current (idle) at nominal voltage (5.0V): DS9908: 70 mA (typical) DS9908R: 135 mA (typical)
Color	Midnight Black
Supported Host Interfaces	USB Certified, RS232, Keyboard Wedge, TGCS (IBM) 46XX over RS485
Keyboard Support	Supports over 90 international keyboards
Electronic Article Surveillance	Compatible with Checkpoint EAS deactivation system
TAA Compliance	Trade Agreement Act Compliant
User Indicators	Direct Decode Indicator, Good Decode LEDs, Speaker (adjustable tone and volume)

Performance Characteristics

Swipe Speed (Hands-Free)	Up to 240 in./610 cm per second for 13 mil UPC in optimized mode
Light Source	Aiming Pattern: Circular 617nm Amber LED
Illumination	(2) 645nm Red LEDs
Imager Field of View	48° H x 30.6° V Nominal
Image Sensor	1280 x 800 pixels
Minimum Print Contrast	16% minimum reflective difference
Skew Tolerance	+/- 60°
Pitch Tolerance	+/- 60°
Roll Tolerance	0° - 360°

RFID (DS9908R)

Standards Supported	EPC Class 1 Gen2; EPC Gen2 V2; ISO-18000-63
RFID Engine	Zebra Proprietary Radio Technology
Nominal Read Range	~18 in. / ~45.7 cm
RFID Power Output	3 dBm to 22 dBm
Frequency Range	US: 902 - 928 MHz EU: 865 - 868 MHz Japan: 916 - 923 MHz

Accessories

Multi-Mount Bracket

Symbol Decode Capability[5]

1D	Code 39, Code 128, Code 93, Codabar/NW7, Code 11, MSI Plessey, UPC/EAN, I 2 of 5, Korean 3 of 5, GS1 DataBar, Base 32 (Italian Pharma)
2D	PDF417, Micro PDF417, Composite Codes, TLC-39, Aztec, DataMatrix, MaxiCode, QR Code, Micro QR, Han Xin, Postal Codes
OCR	OCR-A, OCR-B, MICR, US Currency
Digimarc	Digimarc barcodes
Minimum Element Resolution	Code 39 - 3.0 mil Code 128 - 3.0 mil* DataMatrix - 6.0 mil QR Code - 6.0 mil * With Decode Range Limit feature disabled.

Warranty

Subject to the terms of Zebra's hardware warranty statement, the DS9900 Series is warranted against defects in workmanship and materials for a period of Five Years from the date of shipment. For the complete Zebra hardware product warranty statement, please visit:
www.zebra.com/warranty

Recommended Services

Zebra OneCare Select; Zebra OneCare Essential

Utilities And Management

123Scan	Programs scanner parameters, upgrades firmware, provides scanned barcode data and prints reports. www.zebra.com/123Scan
Symbol Scanner SDK	Generates a fully-featured scanner application, including documentation, drivers, test utilities and sample source code. www.zebra.com/windowsSDK
Scanner Management Service (SMS)	Remotely manages your Zebra scanner and queries its asset information. www.zebra.com/sms

DS9908-SR Handheld Decode Ranges (Typical)[4]

Symbology/Resolution	Near/Far
Code 39: 3 mil	1.1 in./2.8 cm to 3.0 in./7.6 cm
Code 128: 3 mil	1.4 in./3.6 cm to 3.5 in./8.9 cm
Code 128: 5 mil	1.0 in./2.5 cm to 7.1 in./18.0 cm
PDF 417: 6.7 mil	1.2 in./3.0 cm to 8.0 in./20.3 cm
UPC: 13 mil (100%)	0 in./0 cm to 24.7 in./62.7 cm

Markets and Applications

Retail

• Checkout scanning
• Mobile payments, coupons and loyalty
• Age verification (DL scanning)
• Checkpoint EAS
• RFID (POS and commissioning tags)

RFID (DS9908R)

Imaging Characteristics

Graphics Format Support	Images can be exported as Bitmap, JPEG or TIFF
Image Quality (A4 Document)	116 PPI on an 8.3 x 11.7 in./21.0 x 29.7 cm document @ 8.0 in./ 20.3 cm

Environmental

Operating Temperature	32.0° to 122.0° F / 0.0° to 50.0° C
Storage Temperature	-40.0° to 158.0° F / -40.0° to 70.0° C
Humidity	5% to 95% RH, non-condensing
Drop Specification	DS9908: Designed to withstand multiple drops at 5.0 ft./1.5 m to concrete DS9908R: Designed to withstand multiple drops at 4.0 ft./1.2 m to concrete
Tumble Specification	Designed to withstand 2,000 tumbles in 1.5 ft. /0.5 m tumbler[3]
Environmental Sealing	DS9908: IP52 DS9908R: IP42
Electrostatic Discharge (ESD)	ESD per EN61000-4-2, +/-15 KV Air, +/-8 KV Direct, +/-8 KV Indirect
Ambient Light Immunity	0 to 10,000 Foot Candles / 0 to 107,600 Lux

Regulatory

Environmental	EN 50581:2012
Electrical Safety	IEC 62368-1 (ed.2) EN 62368-1:2014/AC:2015
LED Safety	IEC 62471:2006 (Ed.1.0) EN 62471:2008 (LED)
EMI/RFI	EN 55032:2012/AC:2013 (Class B) EN 55032:2015/AC:2016 (Class B) EN 55024:2010 EN 55024:2010/A1:2015 EN 55035:2017 EN 61000-3-2:2014 (Class A) EN 61000-3-3:2013 47 CFR Part 15, Subpart B, Class B ICES-003 Issue 6, Class B

DS9908-SR Handheld Decode Ranges (Typical)[4]

Data Matrix: 10 mil	1.3 in./3.3 cm to 9.3 in./23.6 cm
QR: 20 mil	1.0 in./2.5 cm to 18.0 in./45.7 cm

DS9908-SR Hands-Free Decode Ranges (Typical)[4]

Symbology/Resolution	Near/Far
Code 39: 3 mil	1.1 in./2.8 cm to 3.0 in./7.6 cm
Code 128: 5 mil	0.8 in./2.0 cm to 2.5 in./6.4 cm
PDF 417: 6.7 mil	1.2 in./3.0 cm to 8.0 in./20.3 cm
UPC: 13 mil (100%)	0 in./0 cm to 9.5 in./24.1 cm
Data Matrix: 10 mil	1.0 in./2.5 cm to 9.3 in./23.6 cm
QR: 20 mil	0 in./0 cm to 9.5 in./24.1 cm

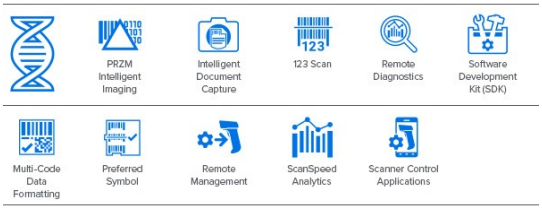
Footnotes

1. DS9908R RFID model: IP42 sealing
2. DS9908R RFID model: Multiple drops at 4.0 ft./ 1.2 m to concrete
3. Note: 1 tumble = 0.5 cycles
4. Printing resolution, contrast, and ambient light dependent
5. Refer to Product Reference Guide for a complete list of symbologies.

Features are subject to availability.
Specifications are subject to change without notice.

DataCapture DNA™

DataCapture DNA is a suite of highly intelligent firmware, software, utilities and apps exclusively engineered to add functionality and simplify the deployment and management of Zebra scanners. For more information about DataCapture DNA and its applications, please visit www.zebra.com/datacapturedna



The Zebra wordmark and logo are trademarks of Zebra Technologies Corp., registered in many jurisdictions worldwide. Android is a trademark of Google LLC. All other trademarks are the property of their respective owners. ©2026 Zebra Technologies Corp. and/or its affiliates. Part number: SS-DS9900-RETAIL 11/02/2022 HTML