DS82 Series Handheld Scanner

Exceptional scanning. Unmatched innovation. Ready for what's ahead.

In today's fast-paced retail landscape, keeping customers happy, shelves stocked, and losses under control takes more than a standard scanner—it takes a smart, future-ready solution. The DS82 Series redefines handheld scanning with technologies that help you stay ahead: RFID to boost inventory accuracy and reduce loss, a multi-function button to streamline workflows, support for emerging vision applications, and contactless charging that keeps your operations moving. An exclusive 2 MP sensor captures more barcodes, faster, and with greater accuracy—accelerating transactions from staffed checkout lanes to self-checkout, curbside pickup, and returns. Without these advanced capabilities, long lines, missed sales, and inefficiencies can quickly erode customer trust. The DS82 Series isn't just an upgrade—it's the key to staying competitive in a rapidly evolving market.



Elevate Performance with Every Scan

Boost productivity with faster, smarter, and more efficient scanning

Zebra redefined scanning with PRZM Intelligent Imaging—a powerful suite of technologies that enables faster, more accurate, and longer-range barcode capture, even on the most challenging codes. Now, with an advanced 2 MP optical system, the DS82 Series sets a new standard for scanning performance—delivering speed, precision, and ease like never before. It's ready for what's next—with a single trigger pull, it instantly reads both traditional 1D UPC and emerging 2D Digital Link codes on product packaging. A wide scanning range—up to 28 inches (70 cm) for UPC codes and 19 inches (48 cm) for 2D QR codes—makes it easy to capture hard-to-reach items, including those at the bottom of shopping carts.

Unlock New Possibilities with Zebra-Exclusive Innovations

Multi-function button: customize your workflow with ease

A multi-function button acts as a secondary trigger, giving you the flexibility to assign it to the tasks that matter most to your workflow. Whether switching between POS and returns applications or activating RFID reads, this customizable button streamlines everyday tasks—helping users work more efficiently and with greater ease.

Smarter operations with integrated RFID

DS82 Series RFID models pair barcode scanning with RFID in a sleek, easy-to-use handheld—giving retailers a multi-tasking, all-in-one tool to optimize inventory, reduce losses, and streamline workflows. Teams can layer barcode and RFID data for more precise inventory tracking, smoother stock management, and reduced shrink. As intuitive as barcode scanning, sweep scanning captures multiple item labels in a single scan to accelerate cycle counts, checkout, and item finding. At the point of sale, reading barcodes and RFID tags together can help flag ticket-switching fraud or mismatches before they become losses. RFID reading is seamlessly integrated and invisible to shoppers, so it won't interrupt the checkout experience, while customizable read range helps minimize false reads from nearby lanes or aisles.

Future-ready innovation at the POS with vision technology

The exclusive 2 MP sensor supports third-party vision applications that can enable real-time item recognition and verification to streamline transactions and reduce self-checkout shrink.

Transform your operations with the DS82 Series handheld scanner, the next evolution in premium handheld scanning.

For more information, please visit www.zebra.com/ds82-series

Designed with flexibility in mind, the high-resolution sensor is ready to support emerging POS innovations—making it a smart, long-term investment for forward-thinking retailers.

Cutting-Edge Power for Longer, Uninterrupted Shifts

Maintenance-free contactless charging

Wirelessly charge your scanners with inductive technology—no physical contacts needed. This contactless design is easy to clean, minimizes wear and tear, and extends device and cradle lifecycles by eliminating the need for charging contact maintenance.

Three days of uninterrupted performance with PowerPrecision+ battery

Cordless models offer two interchangeable power options to fit any workflow: the PowerPrecision+ battery and PowerCap™ supercapacitor. When workers need all-day, on-the-go power, the PowerPrecision+ battery delivers—offering up to 100,000 scans per charge, 70,000 tag reads per charge, and 25% longer life than competitive models. Advanced battery management tools help monitor and optimize battery health for maximum efficiency. And optional battery maintenance services[1] reduce the cost of battery replacement over a scanner's lifespan and ensure workers have a healthy, fully charged battery for every shift.

PowerCap™ supercapacitor: hassle-free power built for longevity

For a greener, worry-free alternative to batteries, the PowerCap™ supercapacitor offers long-lasting performance. It provides up to 6,000 scans per charge—double the capacity of its predecessor and 13x more than competing models. The PowerCap™ can hold its charge for hours and offers ultra-fast charging (ready for 100 scans in just 35 seconds), minimizing downtime and ensuring operations run smoothly. And you can swap the PowerCap™ and battery on any cordless model at any time.

Avoid downtime with convenient power monitoring

A dedicated power gauge lets workers quickly verify charge levels at the start of a shift, helping ensure devices are ready to go—and preventing unexpected downtime.

A Smart Investment for Long-Term Performance

Durable design lowers costs and keeps your operations moving

The DS82 Series is made to handle real-world retail environments. It's sealed to keep out dust and spills, and the deeply recessed scan window helps prevent smudges, scratches, and dirt buildup. It's tough, too—built to survive 6 ft. (1.8 m) drops to concrete and 2,000 tumbles, so you can count on it to keep working shift after shift. That kind of durability means less downtime, fewer replacements, and a lower total cost of ownership.

Intelligent illumination improves the customer experience and lowers costs

In presentation mode, infrared technology activates illumination only when an object is detected—enabling comfortable, hands-free scanning without unnecessary lighting. This intelligent illumination lowers power consumption while creating a more pleasant experience for users and customers alike.

Never lose a cordless scanner again

Zebra's Virtual Tether ensures cordless scanners remain where they belong. If a scanner is taken out of range or left out of the cradle too long, both the scanner and cradle emit alerts. For misplaced devices, a quick press of the cradle's paging button instantly locates the scanner, keeping operations organized and efficient.

Leverage data for smarter decisions

Unlock the full potential of your scanners with IoT Connector. It automates real-time data collection and routes it to your preferred IoT endpoint, enabling instant analysis and insights that help businesses make smarter decisions and improve productivity.

From unboxing to fully operational in five minutes or less

The Simple Setup Experience gets you up and running fast, using your mobile phone. Just scan the QR code on the DS82 Series device to get started. Zebra's Simple Setup Experience walks you through a quick, tailored setup using clear visuals and a few yes/ no questions to create the optimal configuration for your scanner. Integrated assistance keeps everything running smoothly, with help available whenever you need it. And for those who want more control, advanced options are just a tap away.

Unleash the power of Zebra DNA

Zebra DNA is a cutting-edge suite of technologies designed to transform your DS82 Series into a dynamic, future-proof solution. From effortless deployment with 123Scan, to remote management and real-time analytics, Zebra DNA empowers your scanners with unmatched visibility, uptime, and adaptability. When you choose Zebra, you're investing in more than just a scanner—you're investing in a smarter, more agile future for your business.

Specifications

Physical Characteristics

Dimensions	Corded: H x W x D: 6.5 x 2.7 x 4.1 inches (16.5 x 6.9 x 10.5 cm) Cordless: H x W x D: 6.9 x 2.7 x 4.4 inches (17.6 x 6.9 x 11.1 cm) Standard/Desktop Cradle: H x W x D: 2.9 x 3.0 x 8.3 inches (7.3 x 7.6 x 21.1 cm) Presentation Cradle: H x W x D: 3.0 x 3.7 x 4.9 inches (7.7 x 9.4 x 12.5 cm)
Weight	DS82-SR Corded: 6.2 oz. (176.5 g) DS82-R Corded: 7.7 oz. (218.2 g) DS82-SR Cordless: 9.2 oz. (260.6 g) DS82-R Cordless: 9.9 oz. (281.7 g) Standard/Desktop Cradle: 8.4 oz. (238.9 g) Presentation Cradle: 7.2 oz. (204.1 g)
Input Voltage Range	Corded: 4.8 to 5.5 VDC host powered Workstation/Wall Cradle: 4.8 to 5.5 VDC host powered; 10.8 to 13.2 VDC external power supply Presentation Cradle: 4.7 to 5.5 VDC host powered; 10.8 to 13.2 VDC external power supply
Current	DS82-SR corded operating current at nominal voltage (5.0 V): 450 mA (typical) DS82-R corded operating current at nominal voltage (5.0V): 450 mA (typical) DS82-SR standby current (idle) at nominal voltage (5.0 V): 90 mA (typical) DS82-R corded standby current (idle) at nominal voltage (5.0V): 120 mA (typical) Cradles: 470 mA (typical) standard USB; 1450 mA (typical) BC 1.2 USB
Color	Midnight Black
Supported Host Interfaces	USB, RS232
Keyboard Support	Supports over 90 international keyboards
FIPS Security Certification	Certified compliant with FIPS 140-3
Electronic Article Surveillance	Compatible with Checkpoint EAS deactivation system
User Indicators	Direct Decode Indicator, Good Decode LEDs, Rear View LEDs, speaker (adjustable tone and volume), haptic feedback on decode, capacitive multi-function button with haptic feedback, battery indicator

Performance Characteristics

Motion Tolerance (Handheld)	Up to 160 inches (406 cm) per second for 13 mil UPC in optimized mode
Swipe Speed (Hands-Free)	Up to 40 inches (102 cm) per second for 13 mil UPC in optimized mode
Light Source	Aiming Pattern: Circular 524 nm green LED
Illumination	Two warm white LEDs
Imager Field of View	48° H x 36° V nominal
Image Sensor	1600x1200 pixels
Minimum Print Contrast	16% minimum reflective difference
Skew Tolerance	±60°
Pitch Tolerance	±60°

Power

PowerPrecision+ Li-Ion Battery	Capacity: 3500 mAh Number of scans from full charge: 100,000 scans at 60 scans per minute or 65,000 scans at 10 scans per minute[2] Number of tag reads from full charge: 70,000 tag reads at 60 scans per minute or 45,000 tag reads at 10 scans per minute[2] Operating time per full charge (DS82-SR)[2]: 108 hours Operating time per full charge (DS82-R)[2]: 75 hours Charge time from empty to ready-to-scan for 14-hour shift: 90 minutes over standard USB, 25 minutes over external 5V source, and 25 minutes over USB Type C Charge time from empty to full charge: 13 hours over standard USB, 3.5 hours over external 5V source, and 3.5 hours over USB Type C
PowerCap™ supercapacitor	Capacity: 1000 F Li-ion Number of scans from full charge[3]: 6,000 scans at 60 scans per minute or 4,000 scans at 10 scans per minute[2] Operating time per full charge[2], [3]: 6.7 hours Charge time from empty to full charge[3]: 60 minutes over standard USB, 15 minutes over BC1.2 USB, 13 minutes over external 5V source, 13 minutes over external 12V source, and 14 minutes over USB Type C

Regulatory

Environmental	EN IEC 63000:2018
Electrical Safety	EN 62368-1; IEC 62368-1 UL 62368-1, CAN/CSA-C22.2 No. 62368-1-19 EN 50663; EN 62479 FCC 47CFR Part 2.1093 RSS 102 Issue 6
LED Safety	IEC 62471; EN 62471
EMI/RFI	EN 55032; EN 55035 EN 61000-3-2; EN 61000-3-3; EN 61000-6-2 EN 60601-1-2 47 CFR Part 15, Subpart B, Class B ICES-003 Issue 7, Class B EN 300 328 EN 303 417 EN 301 489-1; EN 301 489-17

Decode Capabilities[4]

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, SecurPharm
OCR	OCR-A, OCR-B, MICR, US Currency
GS1	Digital Link
Digimarc	Digimarc barcodes
Minimum Element Resolution	Code 39: 3.0 mil Code 128: 3.0 mil Data Matrix: 5.0 mil QR Code: 5.0 mil

Markets and Applications

Retail

- Point-of-Sale (POS)
- Self-checkout
- Buy Online Pickup In Store (BOPIS)
- Buy Online Pickup At Curb (BOPAC)
- Loyalty applications
- Electronic coupon redemption
- Backroom receiving
- Real-time item-level inventory
- Loss detection/prevention

Hospitality

- Check-in
- Ticketing (concerts, sporting events and more)
- Loyalty cards

Transportation and Logistics

- Shipping and receiving
- Picking
- Product tracking
- Ticketing (airports, train and bus terminals)
- Postal

Light/Clean Manufacturing

- Product and component tracking
- Work-in-Process (WIP)
- Process control

Performance Characteristics

Roll Tolerance	0° - 360°

Imaging Characteristics

Graphics Format Support	Images can be exported as Bitmap, JPEG or TIFF
Image Quality	140 PPI on an 11.0 x 8.5 inches (27.9 x 21.6 cm) document @ 11.8 inches (30.0 cm)

RFID (DS8208-R, DS8288-R)

Standards Supported	EPC Class 1 Gen2, EPC Gen2 V2.2, ISO-18000-63
RFID Engine	ZEBRA Proprietary Radio Technology
Nominal Read Rate	~ 10 tags/second
Nominal Read Range	~ 43 in. (109 cm)
RFID Power Output	0.1 to 22.0 dBm
Frequency Range	US: 902-928 MHz, EU (R8): 865-868 MHz, JP: 916-923 MHz

User Environment

Operating Temperature	32.0°F to 122.0°F (0.0°C to 50.0°C)
Storage Temperature	-40.0°F to 158.0°F (-40.0°C to 70.0°C)
Humidity	0% to 95% RH, non-condensing
Drop Specification	10 ft. (3 m) MIL spec to concrete; Designed to withstand 54 drops at 6.0 ft. (1.8 m) to concrete
Tumble Specification	Designed to withstand 2,000 tumbles in 1.5 ft. (0.5 m) tumbler
Sealing	IP52
Electrostatic Discharge (ESD)	Scanner: ESD per EN61000-4-2, +/-16 KV Air, +/-8 KV Direct, +/-8 KV Indirect Standard/Desktop Cradle: ESD per EN61000-4-2, +/-16 KV Air, +/-8 KV Direct, +/-8 KV Indirect Presentation Cradle: ESD per EN61000-4-2, +/-16 KV Air, +/-8 KV Direct, +/-8 KV Indirect
Ambient Light Immunity	0 to 10,000 Foot Candles / 0 to 107,600 Lux
Approved Cleaners	Refer to the Product Reference Guide for the complete list of approved cleaners

Radio Specifications

Bluetooth Radio	Standard Bluetooth Version 5.2 with BLE: Class 1 330 ft. (100 m) and Class 2 33 ft. (10 m), Serial Port and HID Profiles
Adjustable Bluetooth Power	Class 1: Output power adjustable down from 4 dBm in 8 steps Class 2: Output power adjustable down from 2 dBm in 8 steps

Accessories

Cordless: Standard/desktop cradle, Presentation cradle, spare battery, spare PowerCap; document capture stands
Corded: Gooseneck Intellistand, Cup

Decode Range[5]

3 mil Code 39	1.8 inches (4.6 cm) to 6.3 inches (16.0 cm)
5 mil Code 39	0.6 inches (1.5 cm) to 12.6 inches (32.0 cm)
20 mil Code 39	0.8 inches (2.0 cm) to 41.0 inches (104.1 cm)
3 mil Code 128	2.2 inches (5.6 cm) to 6.1 inches (15.5 cm)
5 mil Code 128	1.3 inches (3.3 cm) to 11.0 inches (27.9 cm)
6.7 mil PDF 417	1.3 inches (3.3 cm) to 10.5 inches (26.7 cm)
13 mil UPC (100%)	0.2 inches (0.5 cm) to 27.5 inches (69.9 cm)
10 mil DataMatrix	0.7 inches (1.8 cm) to 11.8 inches (30.0 cm)
20 mil QR Code	0 inches (0 cm) to 19.0 inches (48.3 cm)

Recommended Services

Zebra OneCare™ Select; Zebra OneCare Essential; additional Battery Maintenance services[1]

Warranty

Subject to the terms of Zebra's hardware warranty statement, the DS8288 and CR8288 are warranted against defects in workmanship and materials for a period of three years from the date of shipment. The DS8208 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

Zebra DNA

Zebra DNA is a suite of highly intelligent firmware, software, utilities and apps exclusively engineered to ensure maximum performance from every Zebra scanner. For more information about Zebra DNA and its applications, please visit www.zebra.com/zebradna

Footnotes

1. Available for PowerPrecision+ Li-Ion batteries only.
2. Simulated Checkout profile of 10 scans in 10 seconds with a 50 second rest.
3. Values for DS82-SR.
4. Refer to Product Reference Guide for complete list of symbologies.
5. Distance dependent on symbology type and size; range is reduced under lower ambient light level.

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