DS8100 Series Handheld Imagers

THE ULTIMATE IN PERFORMANCE, INNOVATION AND MANAGEABILITY

As a retailer, you know the checkout experience is crucial — it's the last chance to leave your shoppers with a good impression. The quality of the checkout experience is heavily dependent upon the performance of the scanner you choose. If cashiers need to scan barcodes multiple times or enter unreadable barcodes manually, your checkout lanes can back up quickly, translating into long lines and long wait times. Cashiers are then forced to focus on ringing up merchandise instead of providing shoppers with a great in-store experience. Now, give every shopper the ultimate last impression with the DS8100 Series handheld imager, only from Zebra. The DS8100 Series rises above the conventional imagers to deliver unprecedented scanning performance on 1D and 2D barcodes, innovative productivity enhancing tools and unrivaled manageability to keep your checkout lines moving and your cashiers free to deliver a more personal checkout experience. The DS8100 Series — because when it comes to the checkout experience, only the best will do.

UNPRECEDENTED PERFORMANCE

Unparalleled Performance on Virtually Every Barcode in Any Condition
Only the DS8100 Series combines the power of an 800 MHz microprocessor, a high-resolution megapixel sensor and Zebra's exclusive PRZM technology. With this unique combination of hardware and advanced algorithms, the DS8100 Series instantly captures the most problematic barcodes — including dense, poorly printed, crinkled, faded, distorted, dirty or damaged, as well as electronic barcodes on dimly lit displays.

Superior Scan Range
A scanning range up to 24 in./61 cm, a high resolution imaging sensor and a bright "aiming spot" improve checkout speed. Now, cashiers in busy checkout environments can easily scan items in a customer's shopping cart — without leaving the cash-wrap.

Power to Scan Continuously for 24 Hours
No matter how busy your store is, with Zebra's exclusive PowerPrecision+ smart battery in the cordless DS8178, your workers will always have the power they need for the busiest shift. Your devices are always available — no need for charging during the business day.

INNOVATION BEYOND THE BARCODE

PRZM Intelligent Imaging
Only from Zebra, PRZM features reset the bar for imaging performance. Poor images are turned into instantly useful images for faster decoding. PRZM then handles some of the processing typically handled in the decoder to reduce power usage, improve battery cycle times and further increase decoding speed.

Support for the Barcode of the Future — Digimarc®*
The DS8100 Series supports Digimarc digital watermark technology, which enables a barcode to be printed repeatedly over all surfaces of a product like wallpaper — yet remain completely invisible to the naked eye. Cashiers no longer need to locate and position a barcode in the field of view of the imager, enabling faster checkout and easier self-checkout.

Capture Multiple Barcodes with One Press of the Scan Trigger
Multi-code Data Formatting (MDF) provides the ability to capture multiple barcodes and transmit only those required in the precise order the application requires.

Exclusive Battery Charge Gauge
No more guess work on the status of a battery at the start of a shift. The DS8178 is the only scanner in its class that makes it easy to see at a glance whether a battery needs to be replaced before the scanner is placed into service.

Eliminate Bluetooth Interference with Zebra's Proprietary Wi-Fi Friendly Mode
Ensure that your DS8178 Bluetooth scanners only operate on channels that are not shared with your wireless LAN (WLAN), protecting WLAN service levels for your workers and your customers.

Instantly Capture Full Page Documents
The DS8100 Series is the only device in its class that can capture a full page document. With a single press of the scan trigger, Zebra's Intelligent Document Capture and the high-resolution 1280 x 960 camera work together to capture a high-resolution image of a full page 8.5 x 11 or A4 document, and transmit the data in the right format for electronic storage — eliminating the cost and space requirements for a document scanner.

Capture Drivers License Data (DL version required)
With one press of the scan trigger, cashiers can capture and parse data on drivers licenses to automatically populate a loyalty or credit card application, verify age for age-restricted purchases and more.

Direct Decode Indicator Improves Productivity
Since the illumination on the barcode flashes to indicate a good decode, workers never need to pause to make sure a barcode was captured correctly.

UNRIVALED MANAGEABILITY

Visionary Visibility into Scanning and Battery Performance Metrics — only from Zebra
With detailed scanning performance metrics that include speed and type of barcode for every barcode scanned, it's easy to spot and correct barcode issues before they impact worker productivity and the quality of customer service. And with a wealth of battery health information, including charge cycles consumed, a State-of-Health meter and full charge capacity, you can easily spot and replace aging batteries before they can no longer last a full shift. Armed with this information, you can order and install new batteries before battery failures interrupt front end operations and cause checkout delays.

Control Your Scanners from a Smartphone, Tablet or PC
With this easy-to-use application, you can: control your imager's beeper, vibration and LED to set user alerts; display scanned barcode data; access model and serial number; and access battery statistics and more from Android, iOS and Windows smartphones, tablets and PCs.

Easily Manage All of Your Scanners with Powerful Complimentary Tools
With 123Scan, you can easily create configuration barcodes to program scanners. If your imagers 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 DS8100 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.

Put the DS8100 Series to work in:

Retail
- Point-of-Sale (POS)
- Loyalty applications
- Electronic coupon redemption
- Backroom receiving
- Inventory management

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

Transportation & 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)

Government
- Lottery and gaming
- Administration
- Banking

THE DS8100 SERIES — WHEN YOUR BUSINESS DEMANDS THE ULTIMATE IN PERFORMANCE, WORKFORCE PRODUCTIVITY AND CUSTOMER SERVICE.

For more information, visit www.zebra.com/ds8100 or access our global contact directory at www.zebra.com/contact

DS8100 Series Specifications

PHYSICAL CHARACTERISTICS	
Dimensions	**Corded DS8108 and Cordless DS8178:** 6.6 in. H x 2.6 in. W x 4.2 in. D 16.8 cm. H x 6.6 cm. W x 10.7 cm. D **Standard Cradle:** 2.8 in. H x 3.3 in. W x 8.3 in. D 7.1 cm. H x 8.4 cm. W x 21.1 cm. D **Presentation Cradle:** 2.9 in. H x 3.7 in. W x 4.8 in. D 7.4 cm. H x 9.4 cm. W x 12.2 cm. D
Weight	**Corded DS8108:** 5.4 oz./154 g **Cordless DS8178:** 8.3 oz./235.3 g **Desk/Wall Cradle:** 7.1 oz./202 g **Presentation Cradle:** 6.5 oz./182 g
Input Voltage Range	**DS8108:** 4.5 to 5.5VDC **DS8178 Cradles:** 5V: 4.7 to 5.5VDC; 12V: 10.8 to 13.2VDC
Current[1]	**Corded DS8108 Operating Current at Nominal Voltage (5.0V):** 450 mA **Cradle:** 470 mA (typical) Standard USB; 743mA (typical) 12V
Color	Nova White, Twilight Black
Supported Host Interfaces	USB, RS232, Keyboard Wedge, TGCS (IBM) 46XX over RS485
Keyboard Support	Supports over 90 international keyboards
FIPS Security Certification	Certified Compliant with FIPS 140-2
User Indicators	Direct Decode Indicator, Good Decode LEDs, Rear View LEDs, Beeper (Adjustable Tone & Volume), Battery Indicator

PERFORMANCE CHARACTERISTICS	
Light Source	Aiming Pattern: Circular 617nm Amber LED
Illumination	(2) 645nm Red LEDs
Imager Field of View	48° H x 37° V Nominal
Image Sensor	1,280 x 960 pixels
Minimum Print Contrast	16% minimum reflective difference
Skew/Pitch Roll Tolerance	+/- 60°; +/- 60°; 0-360°

IMAGING CHARACTERISTICS	
Graphics Format Support	Images can be exported as Bitmap, JPEG or TIFF
Image Quality	109 PPI on an A4 document
Minimum Element Resolution	Code 39 - 3.0 mil; Code 128 - 3.0 mil; Data Matrix - 6.0 mil; QR Code - 6.0 mil; PDF - 5.0 mil

USER ENVIRONMENT	
Operating Temperature	32° to 122° F/0° to 50° C
Charging Temperature	32° to 104° F/0° to 40° C
Storage Temperature	-40° to 158° F/-40° to 70° C

USER ENVIRONMENT (CONTINUED)	
Humidity	5% to 95% RH, non-condensing
Drop Specification	Designed to withstand multiple 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[2]
Environmental Sealing	IP42
Electrostatic Discharge (ESD)	**DS8108/DS8178 and Cradles:** ESD per EN61000-4-2, +/-15 KV Air, +/-8 KV Direct, +/-8 KV Indirect
Ambient Light Immunity	0 to 9,000 Foot Candles/0 to 96,840 Lux

RADIO SPECIFICATIONS	
Bluetooth Radio	**Standard Bluetooth Version 4.0 with BLE:** Class 1 330 ft. (100m) and Class 2 33 ft. (10m), 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

BATTERY	
Battery Capacity/ Battery Type	2,500 mAh Li-Ion Power Precision+ Battery
Scans Per Battery Charge	65,000 (1 scan per second)
Operating Time Per Full Charge[3]	83 hours

Typical Charge Time from Empty to Full Charge

Power Source	Desk/Wall Cradle	Presentation Cradle
Standard USB	7 hrs 45 min	9 hrs 15 min
BC1.2 USB	3 hrs	3 hrs 15 min
External 5V Source	4 hrs 30 min	5 hrs
External 12V Source	2 hrs 15 min	2 hrs 15 min

REGULATORY	
Electrical Safety	EN 60950-1 2ed + A11 + A1 + A12 + A2:2013, IEC 60950-1 2ed + A1 + A2, UL 60950-1, CAN/CSA-C22.2 No. 60950-1-07
Environmental	RoHS EN 50581
LED Safety	IEC 62471
IT Emissions	EN 55022 (Class B); EN 55032 (Class B)
IT Immunity	EN 55024
Harmonic Current Emissions	EN 61000-3-2
Voltage Fluctuation and Flicker	EN 61000-3-3
Radio Frequency Devices	47 CFR Part 15, Subpart B, Class B
Digital Apparatus	ICES-003 Issue 6, Class B

ACCESSORIES
Standard Cradle, Presentation Cradle, Wall Mount Bracket, Spare Battery, Document Capture Stands

Continued on next page

DS8100 Series Specifications (continued)

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, Chinese Sensible (Han Xin), Postal Codes
Digimarc	Digital watermark technology, available April 2017

WARRANTY

Subject to the terms of Zebra's hardware warranty statement, the DS8178 Scanner and CR8178 Cradle are warranted against defects in workmanship and materials for a period of (3) three years from the date of shipment. The Battery: (12) twelve months and the DS8108 Scanner is warranted against defects in workmanship and materials for a period of (5) five years from the date of shipment. Complete Zebra hardware product warranty statement: www.zebra.com/warranty

RECOMMENDED SERVICES

Zebra OneCare Select; Zebra OneCare Essential

UTILITIES AND MANAGEMENT

123Scan	Programs scanner parameters, upgrades firmware, displays scanned barcode data, scanning statistics, battery health, asset 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/scannersdkforwindows
Scanner Management Service (SMS)	Remotely manages your Zebra scanner and queries its asset information. www.zebra.com/sms

[1] Refer to Product Reference Guide for currents when other power sources are used.

[2] Note: 1 tumble = 0.5 cycle.

[3] Simulated Checkout profile of XX scans in XX seconds with a XX second rest.

[4] Refer to Product Reference Guide for complete list of symbologies.

[5] Printing resolution, contrast, and ambient light dependent.

* Available April 2017

DECODE RANGES (TYPICAL)[5]

SYMBOLOGY	RESOLUTION	NEAR	FAR
Code 39	3 mil	2.2 in./5.6 cm.	5.0 in./12.7 cm.
Code 39	20 mil	.0 in./0 cm.	36.8 in./93.5 cm.
Code 128	3 mil	2.6 in./6.6 cm.	4.5 in./11.4 cm.
Code 128	5 mil	1.6 in./4.1 cm.	8.4 in./21.3 cm.
Code 128	15 mil	.0 in./.0 cm.	27.1 in./68.8 cm.
PDF 417	5 mil	2.3 in./5.8 cm.	6.4 in./16.3 cm.
PDF 417	6.7 mil	1.8 in./4.6 cm.	8.5 in./21.6 cm.
UPC	13 mil (100%)	.0 in./.0 cm.	24.0 in./61.0 cm.
Data Matrix	7.5 mil	2.1 in./5.3 cm.	6.9 in./17.5 cm.
Data Matrix	10 mil	1.1 in./2.8 cm.	9.9 in./25.1 cm.
QR	20 mil	.1 in./.3 cm.	17.6 in./44.7 cm.

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