

SPECIFICATIONS

PHYSICAL CHARACTERISTICS

DIMENSIONS

- Corded DS8101 and cordless DS8178:
6.6 in. H x 2.6 in. W x 4.2 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

- Corded DS8108 operating current at nominal
voltage (5.0V): 450 mA
- Cradle: 470 mA (typical) Standard USB; 743mA
(typical) 12V

COLOR

- Twilight black

SUPPORTED HOST INTERFACES

- USB Certified, 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 and 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

SPECIFICATIONS CONTINUED

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
- 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 tumbler²
- Environmental sealing: IP42
- Electrostatic discharge (ESD): DS8108/DS8178 and cradles: ESD per EN61000-4-2, +/-15 KV Air, +/-8 KV irect, +/-8 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 charge³: 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

DECODE CAPABILITIES⁴

- 1D: Code 39, Code 128, Code 93, Codabar/NW7, Code 11, MSI Plessey, UPC/EAN, 1 2 of 5, Korean 3 o 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 and the CR8178 are warranted against defects in workmanship and materials for a period of three years from the date of shipment. The DS8101 is warranted against defects in workmanship and materials for a period of five years from the date of shipment. Complete Zebra hardware product warranty statment: www.zebra.com/warranty.

RECOMMENDED SERVICES

Zebra OneCare Select; Zebra OneCare Essential

SPECIFICATIONS CONTINUED

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

SYMBOLGY	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.)