

## SPECIFICATION SHEET

ZEBRA 3600 ULTRA-RUGGED SERIES:  
DS3608-HD/DS3678-HD CORDED AND CORDLESS HIGH-DENSITY 2D IMAGER



ZEBRA

# DS3608-HD/DS3678-HD Ultra-Rugged Scanner

## UNSTOPPABLE PERFORMANCE FOR HIGH-DENSITY 1D/2D BARCODES

Every day, workers on the manufacturing plant floor scan thousands of barcodes on product components to ensure product quality. Their productivity depends on the quality of the scanner you put in their hands. When your workers need to capture the small and dense 1D and 2D barcodes common in electronics and medical equipment manufacturing, with the corded DS3608-HD and cordless DS3678-HD High Density imagers, you can give them the best — unmatched rugged design, unmatched scanning performance and unrivaled manageability. Advanced scanning delivers lightning-fast capture of any 1D or 2D barcode printed directly on product components or on labels in virtually any condition — or displayed on a screen. The ultra-rugged design is practically indestructible — ideal for punishing environments. The scanners couldn't be easier and less time-consuming to deploy and manage. And when it comes to cordless technology, the DS3678-HD is loaded with Zebra-only features that put it in a class of its own. The DS3608-HD/DS3678-HD — the unstoppable performance you need to maximize workforce productivity and throughput, improve product quality, reduce production cycle times and prevent unplanned production line downtime.



### Superior scanning performance on any high density 1D/2D barcode

This advanced imager delivers first time capture of high-density 1D and 2D barcodes printed on labels or directly on product components — including tiny and dense 3 mil codes that are barely visible to the naked eye. These scanners also capture standard printed barcodes in virtually any condition — damaged, dirty, poorly printed or under shrinkwrap. This dual functionality provides excellent value: you get one scanner you can use on the production line for end-to-end track and trace of materials — and in the warehouse from receiving to shipping.

### Ultra-rugged — the most indestructible design in its class

The DS3608-HD/DS3678-HD is our most rugged scanner yet, with the highest drop, tumble and sealing specification in its class. The DS3608-HD/DS3678-HD is built to survive an 8 ft./2.4 m drop to concrete — 23 percent more durable than any other scanner in this class. The DS3608-HD/DS3678-HD operates reliably after 5,000 tumbles, simulating the real-world tumbling that occurs with a drop. Both models are dust proof, spray proof and waterproofed to IP67 — they can be sprayed down with jetting water and even submersed in water for up to 30 minutes.

### Easy management with our complimentary industry-best tools

Remotely configure scanners, upgrade firmware, format data properly for your back end and monitor PowerPrecision+ battery statistics and more with 123Scan<sup>2</sup> and Scanner Management Service (SMS).

### Multi-code captures and processes up to 20 barcodes simultaneously

Many labels have multiple barcodes your workers need to capture. Now, one press of the trigger captures the right barcodes and applies the unique data format required for each one for instant transmission to your backend systems — all with complete control over the order barcodes are processed.

### Faster pick-list processing

Users can easily select and capture an individual barcode from any pick list.

### A Bluetooth model in a class of its own for superior cordless freedom

Bluetooth 4.0 (Low Energy) provides lightning fast wireless communication and maximum energy efficiency.

Our Zebra *Wi-Fi Friendly Mode* eliminates the wireless interference that Bluetooth devices can often create in your Wi-Fi environment.

The *'go anywhere' rugged cradle* offers superior versatility and durability. The DS3678-HD is the only scanner in its family to offer a cradle with IP65 sealing. And its industrial charging contacts withstand 250,000 insertions.

*The first-in-its-class battery 'charge gauge'* and Bluetooth status LED make it easy to monitor battery power as well as Bluetooth connectivity.

*The PowerPrecision+ battery* delivers the ultimate in battery power and management. You get 56 percent more scans-per-charge compared to competitive models, plus visibility into a wealth of battery health-related data, including charge cycles consumed, current battery status and a State of Health meter, which identifies if batteries are healthy and holding a full charge or ready for retirement.


**THE DS3608-HD/DS3678-HD — PROTECT PRODUCT QUALITY, REDUCE PRODUCTION TIME AND PREVENT UNPLANNED PRODUCTION LINE DOWNTIME WITH THE ULTRA-RUGGED SCANNER THAT REDEFINES RELIABILITY.**

FOR MORE INFORMATION, VISIT [WWW.ZEBRA.COM/DS36X8-HD](http://WWW.ZEBRA.COM/DS36X8-HD) OR ACCESS OUR GLOBAL CONTACT DIRECTORY AT [WWW.ZEBRA.COM/CONTACT](http://WWW.ZEBRA.COM/CONTACT)

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# DS3608-HD/DS3678-HD Specifications Chart

PHYSICAL CHARACTERISTICS	
Dimensions	Corded: 7.3 in. H x 3.0 in. W x 5.2 in. D 18.5 cm H x 7.6 cm W x 13.2 cm D Cordless: 7.3 in. H x 3.0 in. W x 5.6 in. D 18.5 cm H x 7.6 cm W x 14.2 cm D
Weight	Corded: 10.9 oz./309 g; Cordless: 14.5 oz./411 g
Input Voltage Range	Host powered: 4.5 VDC min., 5.5 VDC max. External power supply: 11.4 VDC min., 12.6 VDC max.
Operating Current	DS3608-HD (corded): 450 mA (typical)
Standby Current	DS3608-HD (corded): 100 mA (typical)
Color	Industrial Green
Supported Host Interfaces	USB, RS232, Keyboard Wedge Industrial Ethernet: EtherNet/IP, Profinet, Modbus TCP & Std TCP/IP
Battery	 PowerPrecision+ 3100 mAh Li-Ion rechargeable battery
User Indicators	Direct decode indicator; LEDs; beeper; vibration
PERFORMANCE CHARACTERISTICS	
Scans per Full Charge	70,000+
Illumination	Two (2) warm white light LEDs
Imager Field of View	Horizontal: 31°, Vertical: 23°
Image Sensor	1,280 x 960 pixels
Minimum Print Contrast	15% minimum reflective difference
Skew/Pitch/Roll	Skew: ± 60°; Pitch: ± 60°; Roll: ± 360°
DECODE CAPABILITIES*	
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
USER ENVIRONMENT	
Operating Temp.	Corded: -22° F to 122° F/-30° C to 50° C Cordless: -4° F to 122° F/-20° C to 50° C
Storage Temp.	-40° F to 158° F/-40° C to 70° C
Humidity	5% to 95% condensing
Drop Specification	Withstands multiple 8.0 ft. / 2.4 m drops to concrete
Tumble Specification	5000 tumbles @ 3.3 ft. (1 m)
Sealing	Scanner: IP65 and IP67; FLB cradle: IP65
ESD	Per EN61000-4-2, ±25 KV air discharge, ±10 KV direct discharge, ±10 KV indirect discharge
Ambient Light Immunity	0 to 10,037 Foot Candles/0 to 108,000 Lux (direct sunlight)
UTILITIES AND MAINTENANCE	
123Scan <sup>2</sup>	Programs scanner parameters, upgrades firmware, provides scanned barcode data and prints reports. For more information, visit <a href="http://www.zebra.com/123Scan">www.zebra.com/123Scan</a>

UTILITIES AND MAINTENANCE (CONTINUED)	
Scanner SDK	Generates a fully-featured scanner application, including documentation, drivers, test utilities and sample source code. For more information, visit <a href="http://www.zebra.com/windowsSDK">www.zebra.com/windowsSDK</a>
Scanner Management Service (SMS)	Remotely manages your Zebra scanner and queries its asset information. For more information, visit <a href="http://www.zebra.com/sms">www.zebra.com/sms</a>
WIRELESS CONNECTIVITY	
Bluetooth Radio	Bluetooth Class 1, Version 4.0 (LE), serial port (SPP) and HID profiles
Data Rate	3 Mbit/s (2.1 Mbit/s) for Classic Bluetooth 1 Mbit/s (0.27 Mbit/s) for Low Energy
Radio Range	Direct line of sight in open air: Class 1: Minimum 300 ft. (100.0 m); Class 2: Minimum 30 ft. (10.0 m)
REGULATORY	
Environmental	RoHS EN 50581: 2012
Electrical Safety	<b>EU Safety:</b> EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 + AC 2011 + A2: 2013; <b>International Safety:</b> IEC 60950-1: 2005 + A1: 2009 + A2: 2013 <b>US/Canada Safety:</b> UL 60950-1, second edition, CAN/CSA-C22.2 No. 60950-1-07
Laser/LED Safety	International LED Safety: IEC 62471: 2006 (Ed.1.0); EN 62471: 2008 (LED); UL, VDE and CU recognized laser component
EMI/RFI	<b>IT Emissions:</b> EN 55022: 2010/AC: 2011 (Class B); <b>IT Immunity:</b> EN 55024: 2010; <b>Heavy Industrial:</b> EN 61000-6-2: 2005/AC:2005; <b>Harmonic Current Emissions:</b> EN 61000-3-2: 2006 + A1: 2009 + A2: 2009 (Class B); <b>Voltage Fluctuation and Flicker:</b> EN 61000-3-3: 2013; <b>Medical Electrical Equipment:</b> EN 60601-1-2: 2007/AC: 2010, IEC 60601-1-2: 2007 (Modified); <b>Radio Frequency Devices:</b> 47 CFR Part 15, Subpart B, Class B <b>Digital Apparatus:</b> ICES-003 Issue 5, Class B
WARRANTY	
Subject to the terms of Zebra's hardware warranty statement, the DS3608-HD/DS3678-HD is warranted against defects in workmanship and materials for a period of: Scanner and Cradle: thirty-six (36) months, Battery twelve (12) months from the date of shipment. For complete warranty statement, go to: <a href="http://www.zebra.com/warranty">http://www.zebra.com/warranty</a>	
RECOMMENDED SERVICES	
Zebra OneCare Select; Zebra OneCare Essential	
DECODE RANGES	
Symbology/Resolution	Near/Far
Code 128: 3 mil	2.0-3.0 in./5.1-7.6 cm
Code 128: 20 mil	2.2-26.0 in./5.6-66.0 cm
Datamatrix: 10 mil	1.0-9.0 in./2.5-22.9 cm
PDF417: 5 mil	2.0-6.0 in./5.1-15.2 cm

\* Refer to Product Reference Guide for complete list of symbologies.

## The Zebra 3600 Ultra-Rugged Scanner Series

This family of scanners offers a model to meet virtually every need in warehousing and manufacturing:

- **LI3608/LI3678:** 1D barcode capture
- **DS3608-SR/DS3678-SR:** Standard range scanning of 1D and 2D barcodes
- **DS3608-HP/DS3678-HP:** High performance scanner captures 1D/2D barcodes over longer distances, plus OCR, photos, and documents
- **DS3608-HD/DS3678-HD:** Captures high-density 1D/2D barcodes
- **DS3608-DP/DS3678-DP:** Capture of Direct Part Marks (DPM)
- **DS3608-ER/DS3678-ER:** All-range 1D/2D barcode capture

Compatible with **Zebra's Network Connect For Manufacturing** for a seamless connection to your Industrial Ethernet Infrastructure. Visit [www.zebra.com/networkconnect](http://www.zebra.com/networkconnect) for more information.



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