

## SPECIFICATION SHEET

ZEBRA 3600 ULTRA-RUGGED SERIES:  
DS3608-DP/DS3678-DP CORDED AND CORDLESS DPM 2D IMAGER



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

## UNSTOPPABLE PERFORMANCE FOR 1D/2D DIRECT PART MARKS (DPM) AND BARCODES

Every day, workers on the manufacturing plant floor scan thousands of direct part marks required to protect product quality and user safety — and meet end-to-end product traceability regulations. Their productivity depends on the quality of the scanner you put in their hands. With the corded DS3608-DP and cordless DS3678-DP imagers, you can give them the best — unmatched rugged design, unmatched scanning performance and unrivaled manageability. Advanced scanning delivers lightning-fast capture of direct part marks, plus any 1D or 2D barcode printed on a label in virtually any condition. 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-DP is loaded with Zebra-only features that put it in a class of its own. The DS3608-DP/DS3678-DP — the unstoppable performance you need to maximize workforce productivity and throughput, ensure traceability, reduce production cycle times and prevent unplanned production line downtime.



### Superior scanning performance on DPM and standard 1D/2D barcodes

Comprehensive patented features enable the capture of literally every type of direct part mark (DPM) and printed 1D/2D barcode. DPM codes can be captured, regardless of size, surface, contrast or density — including the most challenging mark, dot peen, as well as laser etch, ink mark, chemical etch, inkjet mold, cast and thermal spray. The same scanner can capture barcodes printed on labels in virtually any condition — including 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-DP/DS3678-DP is our most rugged scanner yet, with the highest drop, tumble and sealing specification in its class. The DS3608-DP/DS3678-DP 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-DP/DS3678-DP 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.

### Advanced illumination system

Advanced illumination provides the multiple lighting effects required to capture marks on any type of surface — including reflective, irregular and curves as well as low and high contrast marks. The built-in diffuser provides the indirect light required to capture marks printed on very shiny and reflective surfaces. The proprietary design of the diffuser also directs additional lighting to the edges of barcodes marked on a curved surface, enhancing the image for easier decoding. Finally, a glancing direct light mode provides the bright light required to successfully read low contrast barcodes marked on any type of surface, including challenging polished materials.

### 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).

### 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-DP 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 50 percent more battery capacity compared to competitive models, plus visibility into a wealth of battery health-related data.


**THE DS3608-DP/DS3678-DP — STREAMLINE END-TO-END PRODUCT TRACEABILITY AND REDUCE PRODUCTION CYCLE TIMES WITH THE ULTRA-RUGGED SCANNER THAT REDEFINES RELIABILITY.**

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

**FACT SHEET**

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# DS3608-DP/DS3678-DP Specifications Chart

PHYSICAL CHARACTERISTICS	
<b>Dimensions</b>	Corded: 7.3 in. H x 3.0 in. W x 5.2 in. D 18.5 cm H x 7.7 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 7.7 cm W x 14.3 cm D
<b>Weight</b>	Corded: 10.72 oz./304g; Cordless: 14.18 oz./402 g
<b>Input Voltage Range</b>	Host powered: 4.5 VDC min., 5.5 VDC max. External power supply: 11.4 VDC min., 12.6 VDC max.
<b>Operating Current</b>	DS3608-DP (corded): 360 mA (RMS typical)
<b>Standby Current</b>	DS3608-DP (corded): 100 mA (RMS typical)
<b>Color</b>	Industrial Green
<b>Supported Host Interfaces</b>	USB, RS232, Keyboard Wedge
<b>Battery</b>	 PowerPrecision+ 3100 mAh Li-Ion rechargeable battery
<b>User Indicators</b>	Direct decode indicator; LEDs; beeper; vibration
PERFORMANCE CHARACTERISTICS	
<b>Scans per Full Charge</b>	100,000+
<b>Illumination</b>	Direct: Two (2) warm white light LED ; Diffuse: Ring of red 634 nm LEDs
<b>Aimer</b>	655 nm laser
<b>Imager Field of View</b>	Horizontal: 31°, Vertical: 23°
<b>Image Sensor</b>	1,280 x 960 pixels
<b>Minimum Print Contrast</b>	15% minimum reflective difference
<b>Skew/Pitch/Roll</b>	Skew: ± 60°; Pitch: ± 60°; Roll: ± 360°
DECODE CAPABILITIES**	
<b>1D</b>	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)
<b>2D</b>	PDF417, Micro PDF417, Composite Codes, TLC-39, Aztec, DataMatrix, MaxiCode, QR Code, Micro QR, Chinese Sensible (Han Xin), Postal Codes
<b>OCR</b>	OCR-A/B, MICR-E13B, US Currency Serial Number
USER ENVIRONMENT	
<b>Operating Temp.</b>	Corded: -22° F to 122° F/-30° C to 50° C Cordless: -4° F to 122° F/-20° C to 50° C
<b>Storage Temp.</b>	-40° F to 158° F/-40° C to 70° C
<b>Humidity</b>	5% to 95% non-condensing
<b>Drop Specification</b>	Withstands multiple 8.0 ft. / 2.4 m drops to concrete
<b>Tumble Specification</b>	5000 tumbles @ 3.3 ft. (1 m)
<b>Sealing</b>	Scanner: IP65 and IP67; FLB cradle: IP65
<b>ESD</b>	Per EN61000-4-2, ±20 KV air discharge, ±10 KV direct discharge, ±10 KV indirect discharge
<b>Ambient Light Immunity</b>	0 to 10,037 Foot Candles/0 to 108,000 Lux (direct sunlight)
UTILITIES AND MAINTENANCE	
<b>123Scan<sup>2</sup></b>	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>

\* Heated scanner holder accessory required for use in freezers.  
\*\* Refer to Product Reference Guide for complete list of symbologies.

UTILITIES AND MAINTENANCE (CONTINUED)	
<b>Scanner SDK</b>	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>
<b>Scanner Management Service (SMS)</b>	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	
<b>Bluetooth Radio</b>	Bluetooth Class 1, Version 4.0 (LE), serial port (SPP) and HID profiles
<b>Data Rate</b>	3 Mbit/s (2.1 Mbit/s) for Classic Bluetooth 1 Mbit/s (0.27 Mbit/s) for Low Energy
<b>Radio Range</b>	Direct line of sight in open air : Class 1: Minimum 300 ft. (100.0 m); Class 2: Minimum 30 ft. (10.0 m)
REGULATORY	
<b>Environmental</b>	RoHS EN 50581: 2012
<b>Electrical Safety</b>	<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
<b>Laser/LED Safety</b>	Exempt Risk Group LED per IEC/EN 62471 (Ed 1) Class 2 Laser per IEC/EN 60825-1 (Ed 3) Complies with 21CFR1040.10
<b>EMI/RFI</b>	<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-HP/DS3678-HP is warranted against defects in workmanship and materials for a period of three (3) years from the date of shipment. For complete warranty statement, go to: [www.zebra.com/warranty](http://www.zebra.com/warranty)

**RECOMMENDED SERVICES**  
Zebra *OneCare* Select; Zebra *OneCare* Essential

DECODE RANGES	
Symbology/Resolution	Near/Far
<b>Code 39: 3.0 mil</b>	<b>0.2-2.8 in./0.5-7.1 cm</b>
<b>Code 39: 5.0 mil</b>	<b>0.2-2.8 in./0.5-7.1 cm</b>
<b>PDF417: 6.6 mil</b>	<b>***0.2-3.2 in./***0.5-8.1 cm</b>
<b>Datamatrix: 5.0 mil</b>	<b>0.4-2.5 in./1.0-6.3 cm</b>
<b>Datamatrix: 10.0 mil</b>	<b>0.0-3.4 in./0.0-8.6 cm</b>
<b>QR: 5.0 mil</b>	<b>0.4-2.5 in./1.0-6.3 cm</b>
<b>QR: 10.0 mil</b>	<b>0.0-3.4 in./0.0-8.1 cm</b>
<b>100% UPC: 13.0 mil</b>	<b>***1.0-5.8 in./***2.5-14.7 cm</b>

\*\*\* FOV/barcode width limited; Decode ranges measured with DPM Mode OFF, photographic paper barcodes, under 30fcx ambient light conditions.

**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



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