

## 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.**

## FACT SHEET

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# DS3608-DP/DS3678-DP 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 7.7 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
Weight	Corded: 10.72 oz./304g; Cordless: 14.18 oz./402 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-DP (corded): 360 mA (RMS typical)
Standby Current	DS3608-DP (corded): 100 mA (RMS typical)
Color	Industrial Green
Supported Host Interfaces	USB, RS232, Keyboard Wedge
Battery	 PowerPrecision+ 3100 mAh Li-Ion rechargeable battery
User Indicators	Direct decode indicator; LEDs; beeper; vibration
PERFORMANCE CHARACTERISTICS	
Scans per Full Charge	100,000+
Illumination	Direct: Two (2) warm white light LED; Diffuse: Ring of red 634 nm LEDs
Aimer	655 nm laser
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
OCR	OCR-A/B, MICR-E13B, US Currency Serial Number
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% non-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, ±20 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.

\* Heated scanner holder accessory required for use in freezers.

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

UTILITIES AND MAINTENANCE (CONTINUED)	
Scanner SDK	Generates a fully-featured scanner application, including documentation, drivers, test utilities and sample source code.
Scanner Management Service (SMS)	Remotely manages your Zebra scanner and queries its asset information.
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 + A1: 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	Exempt Risk Group LED per IEC/EN 62471 (Ed 1) Class 2 Laser per IEC/EN 60825-1 (Ed 3) Complies with 21CFR1040.10
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-DP/DS3678-DP is warranted against defects in workmanship and materials for a period of three (3) years from the date of shipment.	
RECOMMENDED SERVICES	
Zebra <i>OneCare</i> Select; Zebra <i>OneCare</i> Essential	
DECODE RANGES	
Symbology/Resolution	Near/Far
Code 39: 3.0 mil	0.2-2.8 in./0.5-7.1 cm
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PDF417: 6.6 mil	***0.2-3.2 in./***0.5-8.1 cm
Datamatrix: 5.0 mil	0.4-2.5 in./1.0-6.3 cm
Datamatrix: 10.0 mil	0.0-3.4 in./0.0-8.6 cm
QR: 5.0 mil	0.4-2.5 in./1.0-6.3 cm
QR: 10.0 mil	0.0-3.4 in./0.0-8.1 cm
100% UPC: 13.0 mil	***1.0-5.8 in./***2.5-14.7 cm

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## RECOMMENDED SERVICES

Zebra *OneCare* Select; Zebra *OneCare* Essential

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\*\*\* FOV/barcode width limited; Decode ranges measured with DPM Mode OFF, photographic paper barcodes, under 30fcd 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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## About us

- Legacy Technology Services is a leading nationwide provider of mobile computing, barcode, printers and point of sale equipment and services.
- For over a decade, thousands of clients across North America have trusted us to provide equipment from leading manufacturers backed by the services to support them.

## Latest Hardware from top manufacturers

- Legacy handles virtually every major manufacturer of mobile computing, barcoding and point of sale equipment.

## Expert Repair and Maintenance services

- Legacy is one of the best repair facilities in North America

## Discontinued product sourcing

- They don't make it anymore? Our inventory also includes manufacturer close-outs and discontinued equipment to support our clients legacy infrastructure.

## Trade-in and Disposal services

- That old equipment laying around your facility may still have some value. Legacy routinely purchases equipment from our clients around the globe.
  - Data destruction
  - Hardware disposal
  - Auditing services

## Dedicated client account team

- Dedicated, highly trained account managers are here to answer all your questions and provide top notch service.

## Equipment rental services

- Sometimes renting is a better solution, Legacy's huge rental inventory provides the equipment you need for temporary needs and projects.



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