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

## Sure long-range 1D/2D barcode scanning plus OCR, photos and documents

The productivity of your warehouse and manufacturing workers depends on the quality of their scanners. The corded DS3608-HP and cordless DS3678-HP High Performance imagers enable them to reliably scan 1D and 2D barcodes, OCR, photos and documents—and offer unmatched ultra-rugged design and manageability. Advanced scanning delivers lightning-fast capture of any 1D or 2D barcode printed on a label in virtually any condition or displayed on a screen, to nearly 7 ft./2.1 m away. The ultra-rugged DS3608-HP/DS3678-HP is practically indestructible and deployment and management are simple and fast. And when it comes to cordless technology, the DS3678-HP's Zebra-only features put it in a class of its own. The DS3608-HP/DS3678-HP—the performance you need to maximize workforce productivity and throughput in your operations.



**Superior Scanning Performance on any 1D/2D Barcode, in any Condition**
The advanced imager reads 1D and 2D barcodes displayed on a screen or printed on a label faster and with 30 percent more working range than similar models in this class, delivering extraordinary productivity. Workers get first time capture of virtually every barcode, even if it is damaged, dirty, poorly printed or under shrinkwrap.

**Ultra-Rugged—the Most Indestructible Design in its Class**
The DS3608-HP/DS3678-HP is our most rugged scanner yet, with the highest drop, tumble and sealing specification in its class. The DS3608-HP/DS3678-HP 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-HP/DS3678-HP operates reliably after 5,000 tumbles, simulating the real-world tumbling that occurs with a drop. Both models are dustproof, sprayproof and waterproof to IP67—they can be sprayed down with jetting water and even submersed in water.

**Beyond Barcodes: Capture OCR, Photos and Documents**
With Zebra's intelligent document capture we take photos and sharpen and correct the images so they are easier to read. And support for multiple OCR fonts enables fast and easy transfer of data.

**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 and Scanner Management Service (SMS).

**The DS3608-HP/DS3678-HP—advanced capture of 1D/2D barcodes, documents, images and more in an ultra-rugged scanner that redefines reliability.**
**For more information, visit www.zebra.com/DS36X8-HP**
**or access our global contact directory a www.zebra.com/contact**

**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.

**Extreme Temperature Rating**
Built to handle extreme cold, heat and humidity, you can use these scanners anywhere — even in the freezer*.

**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 create in your Wi-Fi environment.

The 'go anywhere' rugged cradle offers superior versatility and durability. The DS3678-HP 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 more than twice the amount of scans per charge than with competitive models—more than 100,000 scans per charge, so workers can scan more items over a longer period of time. You also get 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.

**Three Flexible Feedback Modes**
Mix and match the feedback modes that are ideal in your environment—vibration, red and green LEDs located in an area where they are always easy to see, plus the traditional loud beep tone.

**Instantly Connect to Your Industrial Ethernet Network**
Zebra's Network Connect for Automation delivers a seamless connection between DS3608-HP/DS3678-HP scanners and a manufacturer's Industrial Ethernet network without the need for third party conversion equipment. The solution eliminates vulnerability points, improves security, reduces complexity and is compatible with every Zebra 3600 Series scanner.

**DataCapture DNA**
Zebra's DataCapture DNA is a technology platform of highly intelligent firmware, software, utilities and apps exclusively engineered for Zebra scanners. Leveraging more than 35 years of Zebra's industry expertise, DataCapture DNA delivers innovations that give our best-in-breed imagers greater intelligence and simplicity. When combined with the unstoppable performance found in every 3600 Series ultra-rugged scanner, DataCapture DNA turns Zebra's 3600 Series scanners into powerful tools that help to resolve tomorrow's data capture challenges today—and help your workers get more done each day.

# Specifications

## Physical Characteristics

| | |
|---|---|
| Dimensions | Corded: 7.3 in. H x 3.0 in. W x 5.2 in. D<br>18.5 cm H x 7.6 cm W x 13.2 cm D<br>Cordless: 7.3 in. H x 3.0 in. W x 5.6 in. D<br>18.5 cm H x 7.6 cm W x 14.2 cm D |
| Weight | Corded: 10.9 oz./309 g<br>Cordless: 14.5 oz./411 g |
| Input Voltage Range | Host powered: 4.5 VDC min., 5.5 VDC max.<br>External power supply: 11.4 VDC min., 12.6 VDC max. |
| Operating Current | DS3608-HP (corded): 360 mA (RMS typical) |
| Standby Current | DS3608-HP (corded): 100 mA (RMS typical) |
| Color | Industrial Green |
| Supported Host Interfaces | USB, RS232, Keyboard Wedge<br>Industrial Ethernet: EtherNet/IP, Profinet,<br>Modbus TCP & Std TCP/IP |
| Battery | PowerPrecision+ 3100 mAh Li-Ion<br>rechargeable battery |
| User Indicators | Direct decode indicator; LEDs; beeper; vibration |

## Performance Characteristics

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|---|---|
| Scans per Full Charge | 100,000+ |
| Illumination | Two (2) warm white light 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°<br>Pitch: ± 60°<br>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 |
| IUID Support | Supports IUID parsing, the ability to read and Separate IUID fields per application requirements |

## User Environment

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|---|---|
| Operating Temp. | Corded: -22° F to 122° F/-30° C to 50° C<br>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<br>FLB cradle: IP65 |
| ESD | Per EN61000-4-2, ±25 KV air discharge, ±10 KV direct discharge, ±10 KV indirect discharge |

## User Environment (continued)

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|---|---|
| Explosion Protection | Explosion-protected version available from BARTEC. For more information, visit www.Bartec.de/en |
| Ambient Light Immunity | 0 to 10,037 Foot Candles/0 to 108,000 Lux (direct sunlight) |

## Utilities and Maintenance

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|---|---|
| 123Scan | Programs scanner parameters, upgrades firmware, provides scanned barcode data and prints reports. For more information, visit www.zebra.com/123Scan |
| Scanner SDK | Generates a fully-featured scanner application, including documentation, drivers, test utilities and sample source code. For more information, visit www.zebra.com/windowssdk |
| Scanner Management Service (SMS) | Remotely manages your Zebra scanner and queries its asset information. For more information, visit www.zebra.com/sms |
| Network Connect | Seamlessly connects 3600 Series scanners directly to your Industrial Ethernet network without any third party conversion equipment. For more information, visit www.zebra.com/NetworkConnect |

## Wireless Connectivity

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|---|---|
| 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<br>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) |

## Decode Ranges

| Symbology/Resolution | Near/Far |
|---|---|
| Code 128: 5 mil | 6.0-14.0 in./15.2-35.6 cm |
| Code 128: 20 mil | 5.0-45.0 in./12.7-114.3 cm |
| Code 128: 40 mil | 2.8-80 in./7.1-203.2 cm |
| Datamatrix: 7.5 mil | 7.0-11.0 in./17.8-27.9 cm |
| Datamatrix: 10.0 mil | 6.0-15.0 in./15.2-38.1 cm |

## Regulatory

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|---|---|
| Environmental | RoHS EN 50581: 2012 |
| Electrical Safety | **EU Safety:** EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 + AC 2011 + A2: 2013; **International Safety:** IEC 60950-1: 2005 + A1: 2009 + A2: 2013 **US/Canada Safety:** 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 |

## The Zebra 3600 Ultra-Rugged Scanner Series:

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

- LI3608-SR/ LI3678-SR: Standard range 1D barcode capture
- LI3608-ER / LI3678-ER: All-range 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

# Specifications

**Regulatory (continued)**

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|---|---|
| **EMI/RFI** | **IT Emissions:** EN 55022: 2010/AC: 2011 (Class B); **IT Immunity:** EN 55024: 2010; **Heavy Industrial:** EN 61000-6-2: 2005/AC:2005; **Harmonic Current Emissions:** EN 61000-3-2: 2006 + A1: 2009 + A2: 2009 (Class B); **Voltage Fluctuation and Flicker:** EN 61000-3-3: 2013; **Medical Electrical Equipment:** EN 60601-1-2: 2007/ AC: 2010, IEC 60601-1-2: 2007 (Modified); **Radio Frequency Devices:** 47 CFR Part 15, Subpart B, Class B **Digital Apparatus:** 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: Scanner and Cradle: thirty-six (36) months, Battery twelve (12) months from the date of shipment. For complete warranty statement, go to: http://www.zebra.com/warranty

**Recommended Services**

Zebra *OneCare* Select; Zebra *OneCare* Essential

* Heated scanner holder accessory recommended to reduce condensation on the outside of scan window when moving in and out of freezers.

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

**Datacapture DNA**

For more information about DataCapture DNA and its applications, please visit www.zebra.com/datacapturedna

Intelligent Document Capture    PRZM Intelligent Imaging    Multi-code Data Formatting    Preferred Symbol    Wi-FiTM Friendly Mode    123Scan    Remote Management

Scanner Control Application    Remote Diagnostics    ScanSpeed Analytics    Software Development Kit    Scan-to-Connect    PowerPrecision+

**ZEBRA**

**NA and Corporate Headquarters**
+1 800 423 0442
inquiry4@zebra.com

**Asia-Pacific Headquarters**
+65 6858 0722
contact.apac@zebra.com

**EMEA Headquarters**
zebra.com/locations
contact.emea@zebra.com

**Latin America Headquarters**
+1 786 245 3934
la.contactme@zebra.com