

## SPECIFICATION SHEET

ZEBRA 3600 ULTRA-RUGGED SERIES:  
LI3608/LI3678 CORDED AND CORDLESS 1D LINEAR IMAGER



ZEBRA

# LI3608/LI3678 Ultra-Rugged Scanner

## UNSTOPPABLE PERFORMANCE FOR 1D BARCODE CAPTURE

Every day, workers in your warehouse and on the manufacturing plant floor scan thousands of barcodes to ensure product quality and on-time order delivery. Their productivity depends on the quality of the scanner you put in their hands. When workers need to capture 1D barcodes, you can give them the best with the 1D corded LI3608 and cordless LI3678 scanner. Both models offer unmatched durability, superior scanning performance and unrivaled manageability, while delivering lightning-fast capture of any 1D barcode printed on a label in virtually any condition, or displayed on a screen. The ultra-rugged design is practically indestructible — ideal for punishing environments. The LI3608/LI3678 couldn't be easier and less time-consuming to deploy and manage. And when it comes to cordless technology, the LI3678 is in a class of its own, with a complete solution that includes a sealed rugged cradle, a smart battery and Zebra's Wi-Fi Friendly Mode that prevents interference with your Wi-Fi network. Get the unstoppable performance you need to maximize workforce productivity and throughput in your operations with the LI3608/LI3678 — only from Zebra.



### Superior scanning performance on any 1D barcode, in any condition

Read 1D barcodes displayed on a screen or printed on a label faster than any other 1D scanner on the market—even if they are under heavy shrinkwrap or damaged, dirty or poorly printed. The advanced linear imager offers 30 percent more working range than competitive devices, and captures barcodes as fast as your workers can pull the trigger for extraordinary productivity — no need to pause between scans.

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

The LI3608/LI3678 is our most rugged scanner yet, with the highest drop, tumble and sealing specification in its class. The LI3608/LI3678 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 LI3608/LI3678 operates reliably after 5,000 tumbles, simulating the real-world tumbling that occurs with a drop. Both models are dustproof, sprayproof 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).

### Crispest aiming pattern in its class

You get the industry's sharpest, brightest aiming pattern, ideal for first-time accurate capture of barcodes in pick lists.

### 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.

### Extreme temperature rating

Built to handle extreme cold, heat and humidity, you can use the LI3608/LI3678 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 often create in your Wi-Fi environment.

The 'go anywhere' rugged cradle offers superior versatility and durability. The LI3678 cradle is the only one in its class to offer 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 and Bluetooth connectivity.

The PowerPrecision+ battery delivers the ultimate in battery power and management. You get 56 percent more scans-per-charge compared to similar models in its class, 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, no longer holding a full charge, or at end of life and require replacement.

**THE LI3608/LI3678 — ADVANCED 1D BARCODE CAPTURE IN AN ULTRA-RUGGED SCANNER.**

FOR MORE INFORMATION, VISIT [WWW.ZEBRA.COM/LI36X8](http://WWW.ZEBRA.COM/LI36X8) OR ACCESS OUR  
GLOBAL CONTACT DIRECTORY AT [WWW.ZEBRA.COM/CONTACT](http://WWW.ZEBRA.COM/CONTACT)

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# LI3608/LI3678 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 7.6 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
<b>Weight</b>	Corded: 10.1 oz./287 g; Cordless: 13.6 oz./385 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>	LI3608 (corded): 170 mA (typical)
<b>Standby Current</b>	LI3608 (corded): 40 mA (typical)
<b>Color</b>	Industrial Green
<b>Supported Host Interfaces</b>	USB, RS232, Keyboard Wedge Industrial Ethernet: EtherNet/IP, Profinet, Modbus TCP & Std TCP/IP
<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>	70,000+
<b>Illumination</b>	Two (2) 617nm Amber LEDs
<b>Imager Field of View</b>	35°
<b>Image Sensor</b>	1,500 pixels
<b>Minimum Print Contrast</b>	15% minimum reflective difference
<b>Skew/Pitch/Roll</b>	Skew: ± 65°; Pitch: ± 65°; Roll: ± 45°
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)
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% condensing
<b>Drop Specification</b>	Withstands multiple 8.0 ft. / 2.4 m drops to concrete
<b>Tumble Specification</b>	5,000 tumbles @ 3.3 ft. (1 m)
<b>Sealing</b>	Scanner: IP65 and IP67; FLB cradle: IP65
<b>ESD</b>	Per EN61000-4-2, ±25 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>
<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>

UTILITIES AND MAINTENANCE (CONTINUED)	
<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 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>LED Safety</b>	International LED Safety: IEC 62471: 2006 (Ed.1.0); EN 62471: 2008 (LED)
<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 LI3608-SR/ LI3678-SR 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

**DECODE RANGES**

Symbology/Resolution	Near/Far
<b>Code 39: 4 mil</b>	<b>4.0-10.0 in./10.2-25.4 cm</b>
<b>Code 39: 7.5 mil</b>	<b>1.5-19.0 in./3.8-48.3 cm</b>
<b>UPC: 13 mil (100%)</b>	<b>1.0-31.0 in./2.5-78.7 cm</b>
<b>Code 39: 20 mil</b>	<b>0-42.0 in./0-106.7 cm</b>

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