# LI3608-ER/LI3678-ER Ultra-Rugged Scanner

## UNSTOPPABLE PERFORMANCE FOR EXTENDED RANGE 1D BARCODE SCANNING

Every day, workers in your warehouse scan thousands of 1D barcodes near and far to ensure order accuracy and on-time delivery. Their productivity depends on the quality of the scanner you put in their hands. Now, you can give them the best with the corded LI3608-ER and cordless LI3678-ER scanner — unmatched rugged design, unmatched scanning performance, an industry best scanning range and unrivaled manageability. This linear imager delivers lightning-fast capture of any 1D barcode displayed on a screen or printed on a label in virtually any condition, nearer and farther than any scanner in this class — from 2 in./5.1 cm to as far as 56 ft./17.1 m away. The ultra-rugged design is practically indestructible — ideal for your most punishing environments. The LI3608-ER/LI3678-ER couldn't be easier and less time-consuming to deploy and manage. And when it comes to cordless technology, the LI3678-ER is loaded with Zebra-only features that put it in a class of its own. The LI3608-ER/LI3678-ER — the unstoppable performance you need to maximize workforce productivity and throughput in your operations.



### Best-in-class scanning performance — and scanning range

This linear imager delivers an extraordinary scanning range as far as 56 ft./17.1 m, enabling your workers to scan 1D printed barcodes 26 percent farther than the prior generation laser model. Your workers only need one scanner to read barcodes on the uppermost shelves of your warehouse racks and in hand, including extra-wide codes just a hands-length away. And with the advanced algorithms that have made Zebra the leader in barcode scanning, your workers can capture virtually any barcode in any condition — including under shrinkwrap, damaged, dirty or poorly printed. The result? Workers can capture virtually all 1D barcodes as fast as they can pull the trigger for first-time every time scanning — and extraordinary productivity.

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

The LI3608-ER/LI3678-ER is our most rugged scanner yet, with the highest drop, tumble and sealing specification in its class. The LI3608-ER/LI3678-ER 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-ER/LI3678-ER operates reliably after 5,000 tumbles, simulating the real-world tumbling that occurs with a drop. Both models are dust proof, spray proof and waterproof to IP67 — they can be sprayed down with jetting water and even submersed in water.

### 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).

### Intuitive aiming pattern for ultra-simple scanning at any distance

A new aiming pattern provides fool-proof aiming for codes in hand — and on the uppermost warehouse racks.

### Ready for the freezer

The LI3608-ER and LI3678-ER are built from the ground up to handle extreme cold. Their unique plastics, cables and components are designed to handle freezing temperatures without becoming brittle— making these scanners ideal for use in freezers and outdoor yards.*

### 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 LI3678-ER 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 in this class — more than 100,000 scans per charge, so workers can scan more items over a longer period of time. And you 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 LI3608-ER/ LI3678-ER 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.

**THE LI3608-ER/LI3678-ER — GIVE YOUR WORKERS SINGLE SCANNER SIMPLICITY FOR NEAR AND FAR 1D BARCODE CAPTURE WITH THE ULTRA-RUGGED SCANNER THAT REDEFINES RELIABILITY.**

**FOR MORE INFORMATION, VISIT WWW.ZEBRA.COM/LI36X8-ER OR ACCESS OUR GLOBAL CONTACT DIRECTORY AT WWW.ZEBRA.COM/CONTACT**

## 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

# LI3608-ER/LI3678-ER Specifications Chart

| 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 7.7 cm W x 14.2 cm D |
| **Weight** | Corded: 11.5 oz./327 g<br>Cordless: 15.0 oz./424 g |
| **Input Voltage Range** | Host powered: 4.5 VDC min., 12.6 VDC max.<br>External power supply: 11.4 VDC min., 12.6 VDC max. |
| **Operating Current** | LI3608-ER (corded): 250 mA (RMS typical) |
| **Standby Current** | LI3608-ER (corded): 110 mA (RMS typical) |
| **Color** | Industrial Green |
| **Supported Host Interfaces** | USB, RS232, Keyboard Wedge<br>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** | 100,000+ |
| **Illumination** | 660 nm LED |
| **Aimer** | 655 nm laser |
| **Imager Field of View** | 30.7° (H) |
| **Image Sensor** | 2,496 pixels |
| **Minimum Print Contrast** | 25% minimum reflective difference |
| **Skew/Pitch/Roll** | Skew: ± 65°<br>Pitch: ± 65°<br>Roll: ± 45° |

| 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) |

| USER ENVIRONMENT | |
|---|---|
| **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 |

| USER ENVIRONMENT (CONTINUED) | |
|---|---|
| **ESD** | Per EN61000-4-2, ±25 KV air discharge, ±10 KV direct discharge, ±10 KV indirect discharge |
| **Ambient Light Immunity** | 0 to 10,000 Foot Candles/0 to 107639 Lux (direct sunlight) |

| UTILITIES AND MAINTENANCE | |
|---|---|
| **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 with no additional conversion equipment. For more information, visit www.zebra.com/NetworkConnect |

| 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<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) |

| REGULATORY | |
|---|---|
| **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** | Complies with 21 CFR1040.10 and 1040.11 except for deviations pursuant to Laser Notice NO. 50, dated June 24, 2007 and IEC/EN 60825-1:2007 and/or IEC/EN 60825-1:2014 |
| **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 |

# LI3608-ER/LI3678-ER Specifications (continued)

## DATACAPTURE DNA

### PRODUCTIVITY TOOLS

- PRZM Intelligent Imaging
- Preferred Symbol
- Wi-Fi™ Friendly Mode

### MANAGEMENT TOOLS

- 123Scan
- Remote Management
- PowerPrecision+

### VISIBILITY TOOLS

- Remote Diagnostics
- ScanSpeed Analytics

### DEVELOPMENT TOOLS

- Scanner Control Application
- Software Development Kit
- Scan-to-Connect

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

## DECODE RANGES

| Symbology/Resolution | Near/Far |
|---|---|
| Code 39: 7.5 mil | 3 to 28 in./7.6 to 71.2 cm |
| Code 39: 10 mil | 2 to 70 in./5.1 to 177.8 cm |
| Code 128: 15 mil | 5 to 85 in./12.7 to 215.9 cm |
| Code 39: 20 mil | 3 to 140 in./7.62 to 355.6 cm |
| Code 39: 55 mil | 6 to 350 in./15.24 to 889.0 cm |
| Code 39: 100 mil | 20 to 680 in./50.8 to 1727.2 cm |
| Code 39: 100 mil Reflective | 30 to 780 in./76.2 to 1981.2 cm |

## WARRANTY

Subject to the terms of Zebra's hardware warranty statement, the LI3608-ER/LI3678-ER 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: 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.

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