DS3600-HD Ultra-Rugged Scanner

Unstoppable performance for high-density 1D/2D barcodes

The productivity of workers on the manufacturing plant floor depends on the quality of the scanner you put in their hands. When your workers need to capture the small and dense 1D and 2D barcodes common in electronics and medical equipment manufacturing, with the DS3600-HD Ultra Rugged scanners, you can give them the best. Instantly capture any high-density 1D or 2D barcode printed directly on product components or labels in virtually any condition—or displayed on a screen. Built for your toughest environments, the DS3600-HD is virtually indestructible, including an enhanced 10 ft./3 m drop spec to concrete and dual IP65/IP68 sealing. With DataCapture DNA, Zebra's exclusive software ecosystem, you can simplify every stage of the scanning experience over the life of your device. The DS3600-HD—the unstoppable performance you need to maximize workforce productivity and throughput, reduce production cycle times and prevent unplanned production line downtime.

Performs In Your Toughest Environments

Superior Scanning on any High Density 1D/2D Barcode
Zebra's exclusive PRZM Intelligent Imaging technology delivers first-time capture of high-density 1D and 2D barcodes printed on labels or directly on product components—including tiny and dense 3 mil codes that are barely visible to the naked eye. The DS3600-HD also captures standard printed barcodes in virtually any condition—damaged, dirty, poorly printed or under shrinkwrap. This dual functionality allows you to use the same scanner 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
Zebra ultra-rugged scanners earned their name for a reason—you won't find a tougher family of scanners. Ready for the world's harshest environments, the DS3600-HD has the highest drop, tumble and sealing specifications in its class. It can survive 10 ft./3 m drops to concrete and 7,500 tumbles. With dual IP65/IP68 sealing, the DS3600-HD is dust proof, can handle the force of jetting water and be fully submerged in water. Built to withstand extreme heat, cold and humidity, the DS3600-HD can be used anywhere—indoor, outdoor and even in the freezer.[1]

Ultra-Rugged Cradle and Charging Contacts Designed to Last
The DS3600-HD is the first scanner in its class to offer a cradle with IP65 sealing. Its industrial charging contacts withstand 250,000 insertions. And Zebra's exclusive Connect+ Contact technology assures reliable, corrosion-free charging over the life of the scanner.

Easily Capture Label Data for Better Inventory Management
With Label Parse+, the DS3600-HD can instantly capture and parse GS1 label barcode data on items, enabling workers to easily capture a wealth of data, including expiration dates and lot number/manufacturing location.

Read Up To 20 Barcodes with One Press of the Scan Trigger
With Multi-Code Data Formatting (MDF), the DS3600-HD can capture multiple barcodes with a single scan and transmit only the barcodes you need, in the order your application expects.

The DS3600-HD—Protect product quality, reduce production time and prevent unplanned production line downtime with the ultra-rugged scanner that redefines reliability.
For more information, visit www.zebra.com/ds36x8-hd

Faster Pick-List Processing

Users can easily select and capture an individual barcode from any picklist.

Flexible Feedback Modes

Mix and match the feedback modes that best fit your environment— vibration, wraparound LEDs that are easy to see from any position, a beep tone and Zebra's Direct Decode Indicator that projects illumination on the captured barcode.

Superior Cordless Technology

More Than 100,000 Scans on a Single Charge

The PowerPrecision+ battery delivers the ultimate in battery power and management. You get more than three times the amount of scans per charge than with competitive models in this product class, 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.

Battery and Bluetooth™ Status At-A-Glance

The first-in-its-class battery 'charge gauge' and Bluetooth status LED make it easy to monitor battery power as well as Bluetooth connectivity.

Switch Workflows in an Instant with AutoConfig

Since scanner settings are stored in the cradle base, simply pair the DS3600-HD to a different base to automatically configure it for a new host application. For example, you can take a scanner from the manufacturing line and use it for shipping without manually changing settings.

Keep Track of Your Scanners and Prevent Workflow Interruptions

With Virtual Tether, you won't have to worry about a warehouse worker leaving a scanner behind on a pallet. Both the scanner and cradle will alert users when a scanner is taken beyond its Bluetooth range or left out of the cradle for a predefined length of time.

Eliminate Bluetooth Interference with Wi-Fi Friendly Mode

Zebra's exclusive Wi-Fi Friendly Mode eliminates the wireless interference that Bluetooth devices can create in your Wi-Fi environment.

Unrivaled Manageability

Instantly Connect to Your Industrial Ethernet Network

Zebra's Network Connect for Automation delivers a seamless connection between DS3600-HD 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.

Identify and Correct Problem Barcodes with ScanSpeed Analytics

Only from Zebra, ScanSpeed Analytics provides detailed metrics on every barcode captured—enabling you to identify poor performing barcodes that slow down your operations.

No-Cost Tools to Meet Your Management Needs

With 123Scan, you can easily create configuration barcodes to program scanners. If your imagers are in multiple locations across the country or around the world, with Scanner Management Service (SMS), you can configure and update the firmware for any DS3600-HD device that is plugged into the host—no depot staging or user action is required.

Up-To-The-Minute Insight Into Every Aspect of Your Scanners

The logging agent's Remote Diagnostics capabilities automate the recording of scanner asset information, health and statistics, configuration settings and barcode data—giving you the information needed for event verification, blockchain traceability, pilot site ROI generation, troubleshooting and predictive fleet-wide trend analysis.

Specifications

Physical Characteristics

Dimensions	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
Weight	Corded: 10.9 oz./309 g Cordless: 14.5 oz./411 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-HD (corded): 360 mA (RMS typical)
Standby Current	DS3608-HD (corded): 100 mA (RMS typical)
Color	Industrial Green
Supported Host Interfaces	USB, RS232, Keyboard Wedge 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+
Image Capture	Basic
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° Pitch: ± 60° Roll: ± 360°

Decode Capabilities[2]

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
IUID Support	Supports IUID parsing, the ability to read and separate IUID fields per application requirements

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	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
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

Decode Ranges (Typical)[3]

Symbology/Resolution	Near/Far
Code 128: 3 mil	2.0-3.0 in./5.1-7.6 cm
Code 128: 20 mil	2.2-26.0 in./5.6-66.0 cm
Datamatrix: 10 mil	1.0-9.0 in./ 2.5-22.9 cm
PDF417: 5 mil	2.0-6.0 in./5.1-15.2 cm

Warranty

Subject to the terms of Zebra's hardware warranty statement, the DS3608-HD / DS3678-HD 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: www.zebra.com/warranty

Recommended Services

Zebra OneCare™ Select; Zebra OneCare Essential

The Zebra 3600 Ultra-Rugged Scanner Series

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

• LI3600-SR: Standard range 1D barcode capture
• LI3600-ER: Extended range 1D barcode capture
• DS3600-SR: Standard range scanning of 1D and 2D barcodes
• DS3600-HP: High-performance scanner captures 1D/2D barcodes over longer distances, plus OCR, photos and documents
• DS3600-HD: Captures high-density 1D/2D barcodes
• DS3600-DP: Capture of Direct Part Marks (DPM)
• DS3600-ER: Extended range 1D/2D barcode capture
• DS3600-DPA: Optimized to read Direct Part Marks (DPM) and wide 1D barcodes
• DS3600-KD: Versatility of a keypad and color display

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
Tumble Specification	7500 3.3 ft./1.0 m tumbles
Drop Specification	DS36X8: Withstands multiple 10.0 ft/3.0 m drops to concrete at room temperature DS3678: Withstands multiple 8.0 ft/2.4 m drops to concrete at -20° C to 50° C DS3608: Withstands multiple 8.0 ft/2.4 m drops to concrete at -30° C to 50° C
Sealing	Scanner: IP65 and IP68 per applicable IEC sealing specifications; FLB cradle: IP65
ESD	Per EN61000-4-2, ±25 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

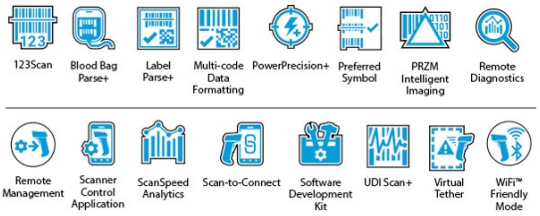
123Scan	Programs scanner parameters, upgrades firmware, provides scanned barcode data and prints reports. For more information, visit www.zebra.com/123Scan
Scanner SDK	Generates a fully-featured scanner application, including documentation, drivers, test utilities and sample source code. For more information, 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

Footnotes

1. Heated scanner holder accessory recommended to reduce condensation on the outside of scan window when moving in and out of freezers..2. Refer to Product Reference Guide for complete list of symbologies.
Specifications are subject to change without notice.3. Printing resolution, contrast, and ambient light dependent.

DataCapture DNA

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



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