

# **DS3600-XR Ultra-Rugged Scanner**

# Unstoppable performance now with the industry's longest scanning range

When tasks get tougher, you need a scanner that's ready for the job. The DS3600-XR sets a new standard in extended range performance, enabling workers to scan faster, farther and more accurately than ever before. The DS3600-XR maintains the proven ruggedness of the DS3600-ER, increases scanning range by more than 40% and aimer visibility up to 7x — while decreasing device weight by 10%. The DS3600-XR delivers an edge over the competition for both rapidly proliferating 2D barcodes and traditional 1D. It seamlessly reads barcodes from as close as 2 in./5 cm to over 105 ft./32 m — nearer and farther than any scanner in its class. A high visibility green laser aimer makes scanning easier and more accurate at varying distances and lighting conditions. The DS3600-XR is virtually indestructible with a best-in-class 10 ft./3 m drop spec to concrete. Superior cordless technology makes it easier for your workers to use and manage their cordless scanners. And Zebra DataCapture DNA takes scanner performance far beyond the basics.



# **Performs in Your Toughest Environments**

### Scan Nearer and Farther with Class-leading Range

Engineered to perform at the highest level, the DS3600-XR can capture barcodes from less than 2 in./5 cm to over 105 ft./32 m — over 25% farther than other products in this class. It scans commonly used 2D barcodes nearly 40% farther, keeping productivity high as information-rich 2D codes become more prevalent in supply chains. Zebra's PRZM Intelligent Imaging technology offers unmatched scanning performance on virtually any 1D, 2D, paper and mobile barcode — including barcodes that are scratched, dirty, poorly printed, high density, even under shrinkwrap or frost.

## Instant, Intelligent Barcode Capture Near and Far

Zebra's exclusive IntelliFocus™ technology delivers optimal performance across the entire scanning range and in a variety of lighting conditions. That means workers can use the same scanner to read barcodes on a picklist in hand, scan items on the uppermost shelves of warehouse racks or barcodes on the highest shipping container, capture ground level barcodes without bending down and reach more labels without getting out of the forklift.

# High Visibility Green Laser Aimer for Indoor and Outdoor Scanning

The DS3600-XR's green laser aimer with a wide cross hair pattern is up to 7x more visible than a red aiming dot and can be seen across the entire decode range indoors and up to 10 ft./3 m in direct sunlight. The result is easier and more accurate aiming, whether workers are scanning in the dimmest corners of the warehouse or out on the loading dock, port or yard.

### 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-XR 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-XR is dust proof, can handle the force of jetting water and be fully submerged in water. And built to withstand extreme heat, cold and humidity, it can be used anywhere — indoor, outdoor and even in the freezer.<sup>1</sup>

#### Ultra-Rugged Cradle and Charging Contacts Designed to Last

The 3600 Series are the first scanners in their class to offer a cradle with IP65 sealing. 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-XR 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-XR can capture multiple barcodes with a single scan and transmit only the barcodes you need, in the order your application expects.

#### **Faster Pick-List Processing**

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

#### **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 80,000 Scans on a Single Charge

Workers can count on non-stop, full-shift power. The cordless DS3678-XR supports more than 80,000 scans in a single charge — that's at least 23 hours of continuous scanning and 60% more scans per charge than competitive models in this product class. The smart PowerPrecision+ battery provides comprehensive health information, so you can easily spot and replace aging batteries.

### **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

Simply pair the DS3600-XR to a different base to automatically configure it for a new host application. For example, take a scanner from the forklift and use it for shipping without manually changing settings.

# Keep Track of Your Scanners and Prevent Workflow Interruptions

With Virtual Tether, your cordless scanners are always where they should be, fully charged and ready for work. The scanner and cradle 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-XR scanners and a manufacturer's Industrial Ethernet network without the need for third party conversion equipment. The solution eliminates vulnerability points, improves security and reduces complexity.

#### **No-Cost Tools to Meet Your Management Needs**

With 123Scan, you can easily create configuration barcodes to program scanners. Zebra Remote Management makes it easy to manage scanners remotely, whether your imagers are in multiple locations across the country or around the world. You can configure and update the firmware for any DS3600 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

Remote Diagnostics automate the recording of scanner asset information, health and statistics, parameter 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.

### Make Data-driven Decisions Informed by Your Scanners

Do more with your DS3600-XR with Zebra's IoT Connector, a fully automated real-time data collection tool that routes data from your scanners into your preferred IoT endpoint. The result? You can mine the data and get the insights needed to make decisions in real time.

# Maximize Performance and Uptime with Unmatched Protection

Optional maintenance plans keep your DS3600 devices up and running in peak condition with coverage for accidental damage and everyday wear-and-tear. Choose a plan that's tailored to your needs and business urgency. You can enhance any Zebra OneCare plan with battery protection that takes the worry out of battery management and eliminates unplanned battery replacement costs.

# **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 7.7 cm W x 14.2 cm D |
|--|--|
| Weight   | Corded: 10.86 oz./308 g<br>Cordless: 14.46 oz./410 g   |
| Input Voltage<br>Range                               | Host powered: 4.5 VDC min., 5.5 VDC max.<br>External power supply: 11.4 VDC min., 12.6<br>VDC max.   |
| Operating<br>Current                                 | Corded:<br>Near: 360mA (RMS typical)<br>Far: 450mA (RMS typical)   |
| Standby Current                                      | Corded: 100 mA (RMS typical)   |
| Color  | Industrial Green   |
| Supported Host<br>Interfaces                         | USB, RS232, Keyboard Wedge Industrial<br>Ethernet: EtherNet/IP, Profinet, Modbus TCP<br>& Std TCP/IP   |
| Battery  | PowerPrecision+ 3100 mAh Li-Ion rechargeable battery   |
| FIPS Security<br>Certification and<br>TAA Compliance | Certified Compliant with FIPS 140-3; Trade<br>Agreement Act Compliant (specific<br>configuration required)   |
| User Indicators                                      | Direct decode indicator; LEDs; beeper; vibration   |

## Performance Characteristics

| Scans per Full<br>Charge<br>(Cordless) | 80,000   |
|--|--|
| Image Capture                          | Basic  |
| Aimer                                  | 520 nm laser   |
| Illumination                           | Two warm-white LEDs 2700K  |
| Imager Field of<br>View                | Near: 42.1° (H) x 27° (V); Far: 14° (H) x 7.9° (V)   |
| Image Sensor                           | Far: 1920 horizontal x 1080 vertical pixels<br>Near: 1280 horizontal x 800 vertical pixels |
| Minimum Print<br>Contrast              | 25% minimum reflective difference  |
| Skew/Pitch/Roll                        | Skew: ± 60°; Pitch: ± 60°; Roll: ± 360°  |

# Decode Capabilities<sup>2</sup>

| 1D       | Code 39, Code 128, Code 93, Codabar/NW7,<br>Code 11, MSI Plessey, UPC/EAN, I 2 of 5,<br>Korean 3 of 5, GS1 DataBar, Base 32 (Italian<br>Pharma)  |
|----------|--|
| 2D       | PDF417, Micro PDF417, Composite Codes,<br>TLC-39, Aztec, DataMatrix, MaxiCode, QR<br>Code, Micro QR, Chinese Sensible (Han Xin),<br>Postal Codes |
| Digimarc | Digital watermark technology   |
| IUID     | Supports IUID parsing, the ability to read and separate IUID fields per application requirements   |

# Decode Ranges (Typical)<sup>3</sup>

| Symbology/Reso<br>lution      | Near/Far   |
|-------------------------------|--|
| 100% UPCA: 13<br>mil          | 1.3 in. to 12.1 ft./3.3 cm to 3.7 m                  |
| Code 128: 10 mil              | 2.2 in. to 8.5 ft./5.6 cm to 2.6 m                   |
| Code 128: 15 mil              | 2.1 in. to 13.6 ft./5.3 cm to 4.1 m                  |
| Code 128: 40 mil              | * <sup>4</sup> to 34.6 ft./* <sup>4</sup> to 10.5 m  |
| Code 128: 100<br>mil          | * <sup>4</sup> to 87.6 ft./* <sup>4</sup> to 26.7 m  |
| Code 39: 5 mil                | 1.3 in. to 4.7 ft./3.3 cm to 1.4 m                   |
| Code 39: 7.5 mil              | 1.3 in. to 7.4 ft./3.3 cm to 2.2 m                   |
| Code 39: 20 mil               | 2.0 in. to 18.1 ft./5.1 cm to 5.5 m                  |
| Code 39: 40 mil               | * <sup>4</sup> to 41.1 ft./* <sup>4</sup> to 12.5 m  |
| Code 39: 55 mil<br>Reflective | * <sup>4</sup> to 61.1 ft./* <sup>4</sup> to 18.6 m  |
| Code 39: 100 mil              | * <sup>4</sup> to 105.1 ft./* <sup>4</sup> to 32.0 m |
| Data Matrix: 10<br>mil        | 1.3 in. to 5.5 ft./3.3 cm to 1.7 m                   |
| Data Matrix: 100<br>mil       | * <sup>4</sup> to 52.1 ft./* <sup>4</sup> to 15.9 m  |
| Data Matrix: 200<br>mil       | * <sup>4</sup> to 100.0 ft./* <sup>4</sup> to 30.5 m |
| QR Code: 10 mil               | 1.3 in. to 4.6 ft./3.3 cm to 1.4 m                   |

## **Utilities and Maintenance**

| 123Scan                                | Programs scanner parameters, upgrades<br>firmware, provides scanned barcode data and<br>prints reports. For more information, visit<br>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<br>Management<br>Service (SMS) | Remotely manages your Zebra scanner and queries its asset information. For more information, visit www.zebra.com/sms   |
| Network<br>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 |

# Regulatory

| Environmental       | RoHS EN 50581: 2012   |
|---------------------|---|
| Electrical Safety   | EN 62368-1:2014/AC:2015<br>EN 62368-1:2014/A11:2017<br>IC 62368-1 (Ed.2)<br>UL 60950-1, second edition, CAN/CSA-C22.2 N |
| Laser/LED<br>Safety | 21CFR1040.10 (Laser)<br>IC 60825-1:2014 (Ed.3.0): EN 60825-1:2014<br>(Laser)<br>EN 60825-1:2014/A11:2021                |

# **Markets and Applications**

#### Warehouse

- Inventory Management
- Picking

- Picking
  Packing
  Receiving
  Put Away
  Shipping
  Returns Processing
  Cross Dock

## **Manufacturing and Distribution**

- Supply-line replenishment
- Quality ControlTrack and Trace
- Work in Process
- Parts tracking

#### **Environments**

- Warehouses
- Ports
- Rail yards
- Lumber yards
- And more

#### User Environment

| Operating<br>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<br>Specification     | DS36X8: Withstands multiple 10.0 ft/3.0 m drops to concrete at room temperature Cordless: Withstands multiple 8.0 ft/2.4 m drops to concrete at -20° C to 50° C Corded: Withstands multiple 8.0 ft/2.4 m drops to concrete at -30° C to 50° C |
| Tumble<br>Specification   | 7500 3.3 ft./1.0 m tumbles  |
| Sealing                   | Scanner: IP65 and IP68 per applicable IEC sealing specifications<br>FLB cradle: IP65  |
| ESD                       | Per EN61000-4-2, ±25 KV air discharge, ±10 KV direct discharge, ±10 KV indirect discharge   |
| Ambient Light<br>Immunity | 0 to 10,000 Foot Candles/0 to 107639 Lux<br>(direct sunlight)   |

## 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:<br>Class 1: Minimum 300 ft. (100.0 m);<br>Class 2: Minimum 30 ft. (10.0 m) |

## Regulatory

|        | IC 62471:2006 (Ed.1.0): EN 62471:2008 (LED)   |
|--------|---|
| EMI/RF | EN 55032:2015/A11:2020 (Class B) EN 55035:2017/A11:2020 EN 61000-6-2:2005/AC:2005 EN 61000-3-2:2014 (Class A) EN 61000-3-2:2019 (Class A) EN 61000-3-3:2013 EN 61000-3-3:2013 EN 61000-3-3:2015. IC 60601-1-2:2014 47 CFR Part 15, Subpart B, Class B ICES-003 Issue 7, Class B |

## Warranty

Subject to the terms of Zebra's hardware warranty statement, the DS3608-XR/DS3678-XR are 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; Zebra Battery Maintenance Services

## **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.

  3. Printing resolution, contrast, and ambient light dependent.

  4. Dependent on the width of the barcode (shorter barcodes can
- be read even closer, and wider barcodes farther)

Specifications are subject to change without notice.

### DataCapture DNA

DataCapture DNA is a suite of highly intelligent firmware, software, utilities and apps exclusively engineered to add functionality and simplify the deployment and management of Zebra scanners. For more information about DataCapture DNA and its applications, please visit www.zebra.com/datacapturedna





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