# ZEBRA CAPTURE

### **DS3600-DPX Ultra-Rugged Scanner**

# Unstoppable performance for Direct Part Marks (DPM) on matte-finished surfaces

Every day, workers on the manufacturing plant floor scan thousands of direct part marks required to protect product quality and meet end-to-end product traceability regulations. Their productivity depends on the quality of the scanner you put in their hands. With the DS3600-DPX Ultra-Rugged scanner, you can give them the best. Get instant capture of direct part marks, plus virtually any 1D or 2D printed barcode. Built for your toughest environments, the DS3600-DPX 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. And when it comes to cordless technology, the DS3678-DPX's Zebra-only features put it in a class of its own. The DS3600-DPX—the unstoppable performance you need to ensure traceability, reduce production cycle times and prevent unplanned production-line downtime.



#### **Performs In Your Toughest Environments**

#### Superior Scanning on DPM and Standard 1D/2D Barcodes

Comprehensive patented features and Zebra's exclusive PRZM Intelligent Imaging technology enable the capture of direct part mark (DPM) and printed 1D/2D barcodes. Ideally suited for capturing clean laser-etched direct part marks on matte-finished surfaces, as well as dot peen, ink mark, chemical etch, inkjet mold, cast and thermal spray. The same scanner can capture virtually any barcode printed on a label—including 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, 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-DPX 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-DPX 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-DPX can be used anywhere—indoor, outdoor and even in the freezer.<sup>1</sup>

#### **Easily Capture Label Data for Better Inventory Management**

With Label Parse+, the DS3600-DPX 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-DPX 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**

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**

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

The DS3600-DPX 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.

#### 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-DPX 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

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

#### **Unrivaled Manageability**

#### 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-DPX 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

#### A Model to Meet Virtually Every Need

- 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-DPX: Capture clean laser-etched Direct Part Marks on matte-finished surfaces
- DS3600-ER: Extended range 1D/2D barcode capture
- DS3600-DPA: Optimized to read Direct Part Marks and wide 1D barcodes
- DS3600-KD: Versatility of a keypad and color display

## **Specifications**

Physical Characteri	5.105
Dimensions	Corded: 7.3 in. H x 3.0 in. W x 5.2 in. D 18.5 cm H x 7.7 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 7.7 cm W x 14.3 cm D
Weight	Corded: 10.72 oz./304 g Cordless: 14.18 oz./402 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-DPX (corded): 360 mA (RMS typical)
Standby Current	DS3608-DPX (corded): 100 mA (RMS typical)
Color	Industrial Green
Supported Host Interfaces	USB, RS232, Keyboard Wedge
Battery	PowerPrecision+ 3100 mAh Li-lon rechargeable battery
User Indicators	Direct decode indicator; LEDs; beeper; vibration
Performance Chara	cteristics
Scans per Full Charge	100,000+
Image Capture	Basic
Illumination	Direct: Two (2) warm white light LED
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	5 <sup>2</sup>
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
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
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
	1

Sealing	Scanner: IP65 and IP68 per applicable IEC sealing specifications FLB cradle: IP65
ESD	Per EN61000-4-2, ±20 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 Mainte	nance
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
Wireless Connectivi	ity
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	Exempt Risk Group LED per IEC/EN 62471 (Ed 1) Class 2 Laser per IEC/EN 60825-1 (Ed 3) Complies with 21CFR1040.10
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

#### Markets and Applications

#### Manufacturing

- Lifetime identification (UID)
- Track and trace
- Maintenance management
- Warranty service
- Product authentication
- Automotive/ Aerospace/Defense

Decode Range (Typical) <sup>3</sup>	
Symbology/Resolution	Near/Far
Code 39: 3.0 mil	0.5-4.7 in./1.3-11.9 cm
Code 39: 5.0 mil	0.2-5.6 in./0.5-14.2 cm
PDF417: 6.6 mil	0.1-4.0 in./0.3-10.2 cm
Datamatrix: 5.0 mil	1.2-2.9 in./3.0-7.4 cm
Datamatrix: 10.0 mil	0.1-4.9 in./0.3-12.5 cm
QR: 10.0 mil	0.1-4.8 in./0.3-12.2 cm
100% UPC: 13.0 mil	⁴0.4-9.6 in./⁴1.0-24.4 cm
C128: 15.0 mil	<sup>4</sup> 3.3-10.0 in./ <sup>4</sup> 8.4-25.4 cm

#### Warranty

Subject to the terms of Zebra's hardware warranty statement, the DS3608-DPX/DS3678-DPX 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

#### **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.
- 4. FOV/barcode width limited; Decode ranges measured with DPM Mode OFF, photographic paper barcodes, under 30fcd ambient light conditions.

#### DataCapture DNA

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











































