

# DS4600 Series for Retail

## The versatility your workforce needs

Today's shoppers don't want to wait in long lines at the checkout or returns desk. The DS4600 Series offers the versatility and scanning performance you need to keep transactions fast and lanes flowing smoothly throughout the whole store. This feature-rich family of corded and cordless scanners helps associates scan items of all sizes, read barcodes in nearly any condition and handle transactions of all kinds. There is a DS4600 Series model for every need in your store. Bulky items in a shopping cart, a customer's driver's license at the returns desk, a mobile coupon at checkout, tiny barcodes in the jewelry department, auxiliary handheld scanning at self-checkout — the DS4600 Series can handle it all. The increased efficiency shrinks lines and keeps customers coming back again and again. And Zebra DNA enhances every stage of your scanning journey, from setup and security to management and optimization. The DS4600 Series — more data capture versatility, more range and more innovation.



### Resets the Bar for Versatility and Performance

#### Capture It All with the DS4600 Series

No matter what kind of data you need to capture in your store, the DS4600 Series is ready for the job. Scan 1D and 2D barcodes, whether they're printed on a label or displayed on a phone. Capture DotCode and dotted DataMatrix barcodes through cellophane, as well as the tiny and dense barcodes found on jewelry tags. Read wide barcodes on packages and cartons in the backroom. You can even collect data from IDs and travel documents using Optical Character Recognition (OCR), or parse driver's license information for age verification, returns monitoring, loyalty and credit card applications. The result? Superior value. You can deploy a single scanner family for virtually every scanning need across your store.

#### Superior "Can't Miss" Scanning Range

The DS4600-SR can capture UPC codes up to 28 in (71cm) away, enabling checkout associates and self-checkout users to easily reach heavy or bulky items at the bottom of the shopping cart. It's ideal for adding handheld scanning to a bioptic scanner, such as Zebra's MP72 Series, in high-volume checkout lanes.

#### Count On Zebra Performance to Keep Lines Moving

The 800 MHz microprocessor, high-resolution megapixel sensor and Zebra's exclusive PRZM Intelligent Imaging technology provide instant barcode capture on even the most challenging barcodes. An exclusive rear engine design enables the DS4600 Series to read wider barcodes at every distance, compared to other scanners with a similar field of view. As a result, associates can focus on your customers, rather than positioning items.

#### Day-in, Day-Out Dependability

The DS4600 Series is engineered for durability, inside and out. IP52 sealing protects against spills. An exclusive double-sealed optical system guards the critical optical components from dust and liquid — ensuring that the 'eye' of the scanner always captures the sharpest possible barcode image for fast, reliable decoding. The recessed scan window protects against smudges, dirt and scratches. And the scanner is built to survive multiple 6 ft (1.8m) drops to concrete and 2,000 tumbles in our punishing tumble test.



**The DS4600 Series — the scanner that delivers more. More versatility. More data capture options. More range. More innovation.**

For more information, visit [www.zebra.com/ds4600](http://www.zebra.com/ds4600)

## On-the-Fly Switching Between Handheld and Hands-Free

Simply place the scanner in the optional presentation stand or presentation cradle to automatically switch to hands-free mode; pick up the scanner for handheld mode — no setting changes required.

## Flexible Feedback Modes That Work for Any Retail Environment

The DS4600 Series offers multiple feedback modes including a good decode LED that's visible from any position, a traditional beep tone with adjustable volume/frequency, and Zebra's Direct Decode Indicator that projects the illumination on the barcode.

## Do More With Productivity-Enhancing Innovation

### Enhance Inventory Management with GS1 Label Parsing

With Label Parse+, the DS4600 Series can instantly capture and parse GS1 label barcode data, enabling associates to capture expiration dates, lot number, manufacturing location and more.

### Capture Multiple Barcodes With One Press of the Scan Trigger

With Multi-Code Data Formatting (MDF), the DS4600 Series can scan multiple barcodes with a single trigger pull and transmit only the barcodes you need, in the order your application expects.

### Single Out One Barcode From Many

With Zebra's Preferred Symbol, the DS4600 Series can capture and output only the preferred barcode, so workers no longer have to waste time physically covering nearby barcodes before scanning.

### Deactivate EAS Tags While Scanning

Optional EAS support, available on the DS4600-HD/HL, allows associates to deactivate Checkpoint EAS tags while scanning the price, boosting productivity and preventing erroneous alarms.

### Streamline Data Collection With OCR

Support for OCR expedites the collection of data from ID cards and travel documents that may not have barcodes — speeding up checkout transactions in airport shops and other locations.

### Capture Driver's License Data<sup>1</sup>

Cashiers can capture and parse data information on driver's licenses to automatically populate a loyalty or credit card application, verify age for restricted purchases, process a customer's return and more.

## A Better Cordless Experience with Zebra

### Full-Shift Power Your Workers Can Count On

The DS4678 supports over 50,000 scans in a single charge — that's more than 13 hours of continuous scanning.

### Choice of Standard and Presentation Cradles

The Presentation Cradle provides convenient hands-free scanning and charges the battery during use. The Standard Cradle can sit on a desktop or be mounted on a wall or checkstand. Both cradles are cross-compatible with Zebra's DS8100 Series. And Zebra's Connect+ Contact technology assures reliable, corrosion-free charging over the life of the scanner.

### Keep Track of Your Cordless Scanners

With Virtual Tether, you won't have to worry about a customer accidentally leaving self-checkout with a cordless scanner. Both the scanner and cradle alert when a scanner is taken beyond its range or left out of the cradle for a predefined length of time.

### Eliminate Wireless Network Interference with Wi-Fi Friendly Mode

Zebra's exclusive Wi-Fi Friendly Mode ensures that cordless scanners won't interfere and disrupt your Wi-Fi network.

## Industry-Preferred Management Tools

### Effortless Deployment

The DS4600 Series couldn't be easier to setup. Right out of the box, the scanner is configured for the applications you use every day, while auto-host detect cables automatically select the right host interface — just plug in the scanner and you're ready to go.

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

Zebra's IoT Connector is a fully automated real-time data collection tool that routes data from your scanners into your preferred IoT endpoint. By mining and analyzing the data, you can get the insights needed to make data-driven decisions in real time.

### 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 troubleshooting, predictive fleet-wide trend analysis and more.

### Zebra DNA — Set Up. Secure. Manage. Optimize.

With more than 50 years of field-proven innovation, Zebra knows the scanning journey better than other providers. That's why we've engineered Zebra DNA into all of our scanners. This suite of software tools provides constant visibility, increases uptime and gives you the flexibility to respond to changing needs. For example, 123Scan simplifies every step of deploying your scanners. With Advanced Data Formatting, you can easily create scanner data formatting rules to optimize your workflows and solve business problems. Powerful complimentary management software enables easy remote management. And much more.

# Specifications

## Physical Characteristics

|  |   |
|--|---|
| Dimensions                                       | Corded DS4608:<br>6.5 in H x 2.6 in W x 3.9 in D<br>16.5cm H x 6.7cm W x 9.8cm D<br>Cordless DS4678:<br>6.6 in H x 2.6 in W x 4.2 in D<br>16.8cm H x 6.6cm W x 10.7cm D<br>Standard Cradle:<br>2.8 in H x 3.3 in W x 8.3 in D<br>7.1cm H x 8.4cm W x 21.1cm D<br>Presentation Cradle:<br>2.8 in H x 3.3 in W x 8.3 in D<br>7.1cm H x 8.4cm W x 21.1cm D |
| Weight   | Corded: 5.7 oz (161.9g)<br>Cordless: 7.9 oz (225g)<br>Standard Cradle: 7.1 oz (201.3g)<br>Presentation Cradle: 6.5 oz (184.3g)  |
| Input Voltage Range                              | Corded: 4.5 to 5.5 VDC Host Powered; 4.5 to 5.5 VDC External Power Supply<br>Standard/Presentation Cradle: 4.7 to 5.5 VDC Host Powered; 10.8 to 13.2 VDC External Power Supply  |
| Operating Current at Nominal Voltage (5.0V)      | Corded: 340 mA (typical)<br>Standard/Presentation Cradle: 470 mA (typical)<br>Standard USB: 743mA (typical) 12V   |
| Standby Current (Idle) at Nominal Voltage (5.0V) | Corded: 150 mA (typical)  |
| Color  | Nova White (corded only), Twilight Black  |
| Supported Host Interfaces                        | USB Certified, RS232, Keyboard Wedge, TGCS (IBM) 46XX over RS485  |
| Keyboard Support                                 | Supports over 90 international keyboards  |
| TAA Compliance                                   | Trade Agreement Act Compliant   |
| Electronic Article Surveillance                  | Compatible with Checkpoint EAS deactivation system  |
| User Indicators                                  | Direct Decode Indicator, Good Decode LEDs, Rear view LEDs, Beeper (adjustable tone and volume)  |

## Performance Characteristics

|                           |  |
|---------------------------|--|
| Light Source              | Aiming Pattern: circular 617nm amber LED |
| Illumination              | (2) 660nm red LEDs                       |
| Imager Field of View      | 31.6° H x 22.6° V nominal                |
| Image Sensor              | 1280 x 800 pixels                        |
| Minimum Print Contrast    | 15% minimum reflective difference        |
| Skew/Pitch/Roll Tolerance | +/- 60°, +/- 60°, 0°-360°                |

## Imaging Characteristics

|                         |  |
|-------------------------|--|
| Graphics Format Support | Images can be exported as Bitmap, JPEG or TIFF |
| Image Quality           | 96PPI on an A4 document (DS4600-SR)            |

## Utilities and Maintenance

|                                  |  |
|----------------------------------|--|
| 123Scan                          | Programs scanner parameters, upgrades firmware, provides scanned barcode data and prints reports.<br><a href="http://www.zebra.com/123Scan">www.zebra.com/123Scan</a>                              |
| Scanner SDK                      | Generates a fully-featured scanner application, including documentation, drivers, test utilities and sample source code.<br><a href="http://www.zebra.com/windowssdk">www.zebra.com/windowssdk</a> |
| Scanner Management Service (SMS) | Remotely manages your Zebra scanner and queries its asset information.<br><a href="http://www.zebra.com/sms">www.zebra.com/sms</a>   |

## Regulatory

|                   |   |
|-------------------|---|
| Environmental     | 2011/65/EU and EN 50581:2012 and EN IEC 63000:2018  |
| Electrical Safety | UL 60950-1, second edition, CAN/CSA-C22.2 No. 60950-1-07. EN 60950-1:2006/A2:2013 IEC 60950-1:2005/A2:2013 IEC 62368-1 (ed.2); EN 62368-1:2014  |
| LED Safety        | IEC 62471:2006 (Ed.1.0); EN 62471:2008  |
| EMI/RFI           | FCC: 47 CFR Part 15, Subpart B, Class B; ICES-003 Issue 6, Class B; EN 55032, Class B; EN 55024 EN 55035; EN 60601-1-2:2015, IEC 60601-1-2:2014 |

## Accessories

|   |
|---|
| Gooseneck Intellistand, Cup, Standard Cradle, Presentation Cradle |
|---|

## DS4600-SR/DL Decode Ranges (Typical)<sup>4</sup>

|                      |                                     |
|----------------------|-------------------------------------|
| Symbology/Resolution | Near/Far                            |
| Code 39: 3 mil       | 2.2 in to 5.4 in (5.6cm to 13.7cm)  |
| Code 39: 5 mil       | 0.7 in to 11.0 in (1.8cm to 27.9cm) |
| Code 39: 20 mil      | 0 in to 44.0 in (0cm to 111.8cm)    |
| Code 128: 5 mil      | 2.7 in to 5.4 in (6.9cm to 13.7cm)  |
| PDF 417: 6.7 mil     | 1.3 in to 10.0 in (3.3cm to 25.4cm) |
| UPC: 13 mil (100%)   | 0 in to 28.0 in (0cm to 71.1cm)     |
| DataMatrix: 10 mil   | 1.0 in to 11.5 in (2.5cm to 29.2cm) |
| QR: 20 mil           | 0 in to 17.5 in (0cm to 44.5cm)     |

## DS4600-HD/HL Decode Ranges

### (Typical)<sup>4</sup> DS4600-HD/HL Decode Ranges (Typical)<sup>4</sup>

|                      |                                     |
|----------------------|-------------------------------------|
| Symbology/Resolution | Near/Far                            |
| Code 39: 3 mil       | 1.3 in to 6.0 in (3.3cm to 15.2cm)  |
| Code 39: 5 mil       | 0.1 in to 11.5 in (0.3cm to 29.2cm) |

## Markets and Applications

### Retail

- Checkout scanning
- Mobile scanning: eCouponing/loyalty
- DL parsing: age verification, loyalty and credit applications
- Auxiliary handheld scanning to biopic scanner in high-volume checkout lanes
- Cigarette and liquor tax verification
- Checkpoint EAS
- OCR/Passport reading
- Receiving
- Inventory
- Drive-thru

### Hospitality

- Event/admission ticketing

## Symbol Decode Capability<sup>2</sup>

|                            |  |
|----------------------------|--|
| 1D                         | Code 39, Code 128, Code 93, Codabar/NW7, Code 1 1, MSI Plessey, UPC/EAN, I 2 of 5, Korean 3of 5, GS1 DataBar, Base 32 (Italian Pharma)                       |
| 2D                         | PDF417, Micro PDF417, Composite Codes, TLC-39, Aztec, DataMatrix, MaxiCode, QR Code, Micro QR, Han Xin, Postal Codes, SecurPharm, DotCode, Dotted DataMatrix |
| OCR                        | OCR-A, OCR-B, MICR, US Currency  |
| Minimum Element Resolution | Code 39-3.0 mil (DS4600-SR)<br>DataMatrix-5.0 mil (DS4600-SR)<br>Code 39-2.0 mil (DS4600-HD)<br>DataMatrix-4.0 mil (DS4600-HD)                               |

## DS4600-HD/HL Decode Ranges (Typical)<sup>4</sup>DS4600-HD/HL Decode Ranges (Typical)<sup>4</sup>

|                    |                                     |
|--------------------|-------------------------------------|
| Code 39: 20 mil    | 0.6 in to 29.0 in (1.5cm to 73.7cm) |
| Code 128: 5 mil    | 1.7 in to 5.0 in (4.3cm to 12.7cm)  |
| PDF 417: 6.7 mil   | 0.6 in to 9.3 in (1.5cm to 23.6cm)  |
| UPC: 13 mil (100%) | 0 in to 18.0 in (0cm to 45.7cm)     |
| DataMatrix: 10 mil | 0.2 in to 9.5 in (0.5cm to 24.1cm)  |
| QR: 20 mil         | 0 in to 13.5 in (0 cm to 34.3cm)    |

## User Environment

|                        |  |
|------------------------|--|
| Operating Temp.        | +32.0F to +122.0F (0.0C to +50.0C)   |
| Storage Temp.          | -40.0F to +158.0F (-40.0C to +70.0C)   |
| Humidity               | 5% to 95% RH, non-condensing   |
| Drop Specification     | Designed to withstand multiple drops at 6.0 ft (1.8m) to concrete  |
| Tumble Specification   | Designed to withstand 2,000 tumbles in 1.5 ft (0.5m) tumbler   |
| Sealing                | IP52   |
| ESD                    | Scanner/Standard Cradle/Presentation Cradle: ESD per EN61000-4-2, +/-15 KV Air, +/-8 KV Direct, +/-8 KV Indirect |
| Ambient Light Immunity | 0 to 10,000 foot candles/0 to 107,000 Lux  |

## Radio Specifications (DS4678)

|                 |  |
|-----------------|--|
| Bluetooth Radio | Standard Bluetooth Version 5.2 with BLE: Class 1 330 ft (100m) and Class 2 33 ft (10m), Serial Port and HID Profiles; adjustable power: Class 1: output power adjustable down from 2dbm in 8 steps; Class 2: output power adjustable down from 0dbm in 8 steps |
|-----------------|--|

## Battery (DS4678)

|         |   |
|---------|---|
| Battery | Type: Li-Ion with asset reporting<br>Capacity: 2,500 mAh <sup>5</sup><br>Number of scans from full charge: 50,000 <sup>3</sup><br>Charge times from empty to full:<br>2 hours 15 minutes over external 12V<br>4 hours 30 minutes over external 5V<br>3 hours over BC1.2 USB<br>7 hours 45 minutes over standard USB |
|---------|---|

## Warranty

Subject to the terms of Zebra's hardware warranty statement, the DS4678 and the CR8178 are warranted against defects in workmanship and materials for a period of three years from the date of shipment. The DS4608 is warranted against defects in workmanship and materials for a period of five years from the date of shipment. For the complete Zebra hardware product warranty statement, please visit: [www.zebra.com/warranty](http://www.zebra.com/warranty)

## Recommended Services

Zebra OneCare Select; Zebra OneCare Essential; Zebra OneCare Battery Maintenance

## Footnotes

1. Available on DS4600-DL/HL models
2. Refer to Product Reference Guide for complete list of symbologies
3. At one scan per second
4. Printing resolution, contrast and ambient light dependent specifications are subject to change without notice.

## Zebra DNA

Zebra DNA is a suite of highly intelligent firmware, software, utilities and apps exclusively engineered to ensure maximum performance from every Zebra scanner. For more information, please visit [www.zebra.com/zebradna](http://www.zebra.com/zebradna)

