

## **SYMBOL DS3578 SERIES**

# RUGGED CORDLESS DIGITAL SCANNERS WITH INTEGRATED $\mathsf{BLUETOOTH}^{\textcircled{B}}$

### INSTANTLY CAPTURE VIRTUALLY ANY TYPE OF BAR CODE

Improve business efficiency in your harshest industrial environments with the DS3578 Series. Breakthrough digital imaging technology allows workers to capture virtually any bar code, with extreme speed and accuracy. Three models can meet any bar code capture requirement you have — from 1-D and 2-D bar codes and Direct Part Marks (DPM) to Unique Identification (IUID)\* support.

#### IMAGE CAPTURE ADDS VALUE

When a shipment arrives damaged, a picture is worth a thousand words. With the press of a trigger, workers can capture a photo and automatically append it to the shipment record. The image is wirelessly transferred to the cradle and on to your host PC, providing indisputable evidence of damage and streamlining returns processing.

#### CORDLESS FREEDOM IMPROVES PRODUCTIVITY

With integrated Bluetooth<sup>®</sup>, there is no cord between the scanner and the host, so your employees can move freely throughout your work environment. Productivity, efficiency and even worker safety is improved. Plus, downtime from cable breakdowns — a common point of failure in handheld devices used in industrial environments — is eliminated.

#### MAXIMUM PERFORMANCE FOR MAXIMUM PRODUCTIVITY

The DS3578 Series is designed specifically for fast-paced production environments. Complementary metal–oxide–semiconductor (CMOS) image sensors accurately capture and process bar codes much faster than the typical digital scanner. The powerful 624 MHz microprocessor decodes 1-D and 2-D bar codes within milliseconds, regardless of size or density. The patent pending fast-pulse illumination and fast sensor shutter speed deliver outstanding motion tolerance, eliminating the need for users to pause between scans. Omni-directional scanning functionality allows operators to quickly capture bar codes from any angle, so users never need to take the time to align bar codes with laser lines. Plus, the DS3578 Series offers the widest working range of any scanner in its class.

\* Direct Part Marks (DPM) and IUID available only on the DS3578-DP (DPM-enabled model)

#### **BUILT FOR INDUSTRIAL ENVIRONMENTS**

As innovative as it is rugged, the DS3578 Series delivers the ergonomic and operational features required in scan-intensive industrial applications in the harshest environments. The device is built to handle the inevitable bumps and drops — even on concrete. An IP65-rated seal makes it impervious to dust and water. The exit window is scratch-resistant and recessed for the highest level of durability. These features deliver a low total cost of ownership, minimizing employee and device downtime as well as equipment repair and replacement costs.

In addition, noisy machinery and poor lighting can make it difficult for operators to see or hear scanner feedback to ensure proper completion of scans. DS3578 Series addresses this challenge with bright LEDs, adjustable beeper volume and a vibrating pager motor placed in the handle. Decode feedback is clearly visible and audible, protecting productivity and task accuracy.



#### FEATURES Reads both 1-D and 2-

D bar codes

Increases productivity by providing one device that can read all industry standard bar codes

Powerful 624 MHz processor, fast sensor shutter speed and patent pending fastpulse illumination

Superior performance on 1-D and 2-D bar codes, improving productivity in a wide variety of applications

#### Government grade security: FIPS 140-2 validation

Meets the most stringent federal government and industry security regulations

### IUID-enabled (DS3578-DP only)

Ability to understand IUID constructs, and automatically separate and send the required information to your application

#### Captures high density bar codes (DS3578-HD only)

Increases productivity by enabling users to read high density 2-D bar codes in addition to all industry standard bar codes

#### EZ-DPM software for Direct Part Mark capture (DS3578-DP only)

Enhance quality processes and improve lifetime product traceability with this highly advanced DPM software; captures hard to read DPM codes faster; captures the

#### **GOVERNMENT GRADE-SECURITY**

Achieving government grade security with the DS3578 Series is easy. All models are FIPS 140-2 compliant, right out of the box. Just scan the included Enable FIPS Encryption bar code to activate FIPS security.

### THREE MODELS TO MEET MANY NEEDS

Three models meet a wide variety of application needs across a variety of industries:

#### DS3578-SR: Combination 1-D and 2-D bar code scanning

The flexible DS3578-SR meets the needs of a wide variety of applications and environments, offering 1-D and 2-D bar code scanning, as well as support for a wide variety of interfaces for easy integration with new and legacy systems. The DS3578-SR streamlines inventory management in the most scan intensive, fast-paced environments — from the largest warehouse to the retail backroom — where a quick scan enables the automatic and accurate capture of the information required to increase productivity and reduce errors. At the receiving dock, a scan of the bar code on the boxes, pallets or bill of lading can automatically reconcile incoming shipments for faster processing of incoming goods. In put-away and picking, a quick scan can determine where product should be stored and also verify that product was placed on the right shelf. False out-of-stocks due to misplaced materials are eliminated — along with lost sales. In shipping, a quick scan verifies that the right shipment is addressed to the right person, preventing costly mis-ships.

#### DS3578-HD: Optimized for comprehensive 2-D bar code capture

The DS3578-HD offers the same capabilities as the DS3578-SR, but adds optimization for the very tiny and dense 1-D and 2-D bar codes frequently found in warehousing, transportation and logistics, and manufacturing environments. For manufacturers, the DS3578-HD allows scanning of bar codes on the smallest parts to verify that the right part is used at the right time. Product quality improves, increasing customer satisfaction and retention. Real-time inventory visibility allows manufacturers to lower standard stocking levels, reducing warehouse space requirements and increasing inventory turns — and profitability. And in the event you are notified of a defective part, a quick scan can instantly reveal the location of the defective product, allowing rapid and targeted recalls that protect brand image, customer perception and recall costs. And companies involved in warehousing, shipping and delivery of little items can easily read the small, dense 2-D bar codes that may be utilized on smaller packages.

DS3578-DP: Comprehensive IUID-enabled scanner with support for 1-D, 2-D and DPM bar codes This powerful

scanner combines our highly advanced EZ-DPM software with the functionality of the DS3578- SR, the focusing capability of the DS3578-HD, plus integrated IUID parsing capability. Government agencies and industrial manufacturers — including automotive, aerospace and medical — can capture all 1-D and 2-D bar codes as well as every type of Direct Part Mark (DPM). EZ-DPM software allows easy reading of even the most challenging marks, including very low contrast marks on black plastic, 'noisy' marks on cast surfaces and marks on corroded steel and cast iron pipe that have been in the field for years. Comprehensive IUID support allows you to capture and process Unique Item Identifiers (UIIs) — the scanner can validate, read, separate and transmit the right information to your application. And since construct tables are field upgradable, your IUID applications are future proof.

#### **REDUCE HARDWARE AND MANAGEMENT COSTS**

The DS3578 not only helps you save time, it helps you save money. Since this one device can capture any bar code, you no longer need to purchase, manage and maintain multiple devices to accommodate different bar code symbologies. You also no longer need a cradle for every device —one FIPS validated cradle supports up to seven FIPS validated scanners. In addition, two Zebra-unique tools substantially reduce management time and cost. 123Scan<sup>2</sup> is a powerful PC-based software tool that enables rapid and easy scanner set-up and customization. And Remote Scanner Management (RSM) enables remote, network based device management from a central location.

#### END-TO-END SUPPORT

Service from the Start Advance Exchange Support provides next-business-day replacement of devices that require repair. Built-in Comprehensive Coverage protects your scanners from the unexpected, significantly reducing unforeseen repair expenses and delivering service peace of mind.

For more information on how you can put the DS3578 Series to work in your organization, please visit us on the Web at <u>www.zebra.com/</u> <u>ds3578</u> or access our global contact directory at <u>www.zebra.com/</u> <u>contact</u> widest range of sizes and densities on virtually any surface

#### **Captures photos**

A press of the trigger captures and transfers photographic information to the cradle and on to your host computer

#### Integrated Bluetooth<sup>®</sup> Class II, Version 2.1

Cable-free convenience; secure wireless transmissions; reduces repairs due to cable failure

## Exceptional motion tolerance

Enables extraordinary scanning speed for all bar codes, increasing throughput and productivity— regardless of application

#### Unique aiming pattern

Bright central laser dot ensures quick, accurate scanning — even in bright sunlight

## Omni-directional scanning

Speeds reading time by eliminating the need to line up the bar code with the scan line

#### Rugged design: IP65 sealing and 6.5 ft./2 m drop specification

Ensures maximum reliability with less downtime resulting from accidental drops and exposure to water and dust

#### Bright LED, beeper with adjustable volume and vibrating pager motor

Multiple confirmation modes for positive user feedback in noisy environments

#### Advanced data formatting

Eliminates costly modifications to the host software

### **SPECIFICATIONS CHART**

#### PHYSICAL CHARACTERISTICS

SYMBOLOGY DECODE CAPABILITY

1-D Codes Dimensions 7.34 in. H x 4.82 in. W x 2.93 in. D UPC/EAN and with supplementals, 18.65 cm H x 12.25 cm W x 7.43 Code 39, Code 39 Full ASCII, Tri-optic Code 39, GS1 DataBar cm D Variants, GS1-128, Code 128, Weight 14.6 oz. (414 gm) Code 128 Full ASCII, Code 93, Codabar (NW1), Interleaved 2 of 5, Battery 2200 mAh Lithium Ion Battery Discrete 2 of 5 MSI, Codell, IATA, **Battery Charge Time** Fully charged (100%) within 4.5 Bookland EAN, Code 32 hours using an external power PDF417 (and PDF417 (Standard, Macro), supply and up to ten hours using a Variants) MicroPDF417 (Standard, Macro), USB cable Composite Codes (CC-A, CC-B, Color Twilight Black/Yellow CC-C) Scans The DS3578 typically achieves 2-D Codes TLC-39, Aztec (Standard, Inverse), 50,000 (fifty thousand) scans MaxiCode, DataMatrix/ECC 200 ( Standard, Inverse), QR Code ( Standard, Inverse, Micro) PERFORMANCE CHARACTERISTICS Postal U.S. Postnet, U.S. Planet, U.K. Light Source Aiming pattern: 650nm visible laser Postal, Japan Postal, Australian diode Postal, Dutch Postal, Illumination: 630nm LED 4 State Postal **Imager Field of View** Standard Range Focus: 39.6° H x **DPM Marks** Datamatrix marks applied by 25.7°V (DPM unit only) dot-peening. All supported barcode High Density Focus: 38.4° H x 24.9 types listed above ۰V marked by laser etching, chemical etching, ink marking, molding, Roll/Pitch/Yaw 360°, ±65°, ±60° stamping or casting methods on **Motion Tolerance** Up to 60 in./sec. (1.52m/sec.) for surfaces such as including metal, 100% 13 mil UPC. Motion plastic, rubber or glass tolerance will vary depending on **IUID Support** Supports IUID parsing. The ability code type, scan distance and print to read and separate IUID fields quality. per application requirements Nominal Working See chart on back **USER ENVIRONMENT** Range Operating Temp. -4° F to 122° F/-20° C to 50° C Storage Temp. -40° F to 158° F/-40° C to 70° C CRADLES - CHARGING ONLY(STB 3508 AND FLB 3508) Humidity 5% to 95% relative humidity, non-condensing Power Reqs. 4.75-14 VDC Sealed to IP65 specifications Sealing Typical current draw **Drop Specifications** Unit functions normally after 35 mA repeated 6.5 ft. (2 m) drops to Not charging 45 mA @9V concrete Cradle Insertions 250,000+ insertions 915 mA @5V Fast rate charge\* 660 mA @9V **Ambient Light** Indoor: 450 Ft Candles (4,842 Lux) Immunity Outdoor: 8,000 Ft Candles (86,080 480 mA @5V Lux) Slow rate charge\*\* 345 mA @9V Electrostatic 15 kV air discharge discharge (ESD): 8 kV contact discharge CRADLES - BLUETOOTH<sup>®</sup> (STB 3578 AND FLB 3578) **RADIO SPECIFICATION** 

Pair seven scanners to a single cradle, greatly reducing cradle costs ( scanners and cradle must be FIPS validated)

#### Multiple on-board interfaces and universal cable set

Easy to connect to your existing host system as well as upgrade to new hosts of the future; protecting your investment

### Supports 123Scan<sup>2</sup>

Enables rapid and easy customized set-up through a free, wizard-based PC software tool

#### Supports RSM ( Remote Scanner Management)

Lowers IT expenses and TCO by enabling remote management from a central location

| Radio             | Bluetooth <sup>®</sup> Class II Version 2.1,  | Power Reqs.   | 4.75-14 VDC   |  |
|-------------------|---|---|---|--|
| Frequency         | Serial Port and HID Profiles<br>2.402 to 2.480 GHz adaptive<br>frequency hopping and<br>co-existence with 802.11 wireless<br>networks | Typical current draw<br>:<br>Not charging   | 105 mA @5V<br>110 mA @9V  |  |
| Data Rate         | Basic Data Rate is 720 kbps<br>Enhanced Data Rate (EDR) for<br>image transfer   | -<br>Fast rate charge*  | 915 mA @5V<br>660 mA @9V<br>480 mA @5V  |  |
| Radio Range       | Radio range: Up to 300 ft. (100m)<br>direct line of sight in open air.<br>Typical indoor cordless range is                            | Slow rate charge**  | 345 mA @9V  |  |
|                   | 100 ft. (33m), but range will vary<br>depending upon environment; see   | INTERFACES  |   |  |
|                   | Bluetooth <sup>®</sup> Radio Performance<br>Technical Brief for more<br>information   | Interfaces<br>Supported   | USB, RS-232, RS-485 (IBM 46xx<br>Protocols) and Keyboard Wedge  |  |
| REGULATORY        |   | OPTIONS   |   |  |
| Electrical Safety | UL60950-1, CSA C22.2 No. 60950<br>-1, EN 60950-1 / IEC 60950-1  | - Accessories   | Holster (mounts to pants or belt);<br>Tool Balancer Pulley (tethered);<br>Standard Cradle                 |  |
| Laser Safety      | EN 60825-1, IEC 60825-1,<br>21CFR1040.10, CDRH Class II,<br>IEC Class 2   | -   | (Charge Only); Standard Cradle (<br>Radio/Charge); Fork-Lift Cradle (<br>Charge Only); Fork-Lift Cradle ( |  |
| EMI/RFI           | FCC Part 15 Class B, ICES-003<br>Class B, EN 55022, EN 55024, AS/<br>NZS 4268:2008,<br>Japan VCCI                                     | -   | Radio/Charge)   |  |
|                   |   | RECOMMENDED SERVICES  |   |  |
|                   |   | Service from the Start Advance Exchange Support   |   |  |
| Environmental     | Compliant with RoHS directive 2002/95/EEC   | * Fast rate charge requires an external power supply.<br>** Cradle defaults to slow rate charge when an external<br>supply is not used. |   |  |
| WARRANTY          |   | -   |   |  |

The DS3578 Series is warranted against defects in workmanship and materials for a period of 3 years (36 months) from date of shipment, provided that the product remains unmodified and is operated under normal and proper conditions. See full warranty for details.

| Label Density<br>Paper Label | Depth of Field   |                    |                      |                    |  |
|------------------------------|------------------|--------------------|----------------------|--------------------|--|
|                              | D\$3578-\$R      |                    | DS3578-HD/ DS3578-DP |                    |  |
|                              | English          | Metric             | English              | Metric             |  |
| Code 39 - 3 mil              | N/A              | N/A                | 1.10" - 1.60"        | 2.79 - 4.06 cm     |  |
| Code 39 - 4 mil              | 2.60" - 4.50"    | 6.60 - 11.43 cm    | Contact - 3.5"       | Contact - 8.89 cm  |  |
| Code 39 - 5 mil              | 1.00" - 6.30"    | 2.54 - 16.00 cm    | Contact - 4.2"       | Contact - 10.67 cm |  |
| Code 39 - 7.5 mil            | Contact - 10.10" | Contact - 25.65 cm | Contact - 5.4"       | Contact - 13.72 cm |  |
| Code 39 - 20 mil             | 1.00" - 20.90"   | 2.54 - 53.09 cm    | 1.10" - 9.20"        | 2.79 - 23.37 cm    |  |
| 100% UPC - 13 mil            | 0.90" - 15.10"   | 2.29 - 38.35 cm    | 0.80" - 6.20"        | 2.03 - 15.75 cm    |  |
| PDF417 - 6.67 mil            | 2.70" - 6.10"    | 6.86 - 15.49 cm    | Contact - 3.70"      | Contact - 9.40 cm  |  |
| PDF417 - 10 mil              | 0.40" - 9.30"    | 1.02 - 23.62 cm    | Contact - 4.50"      | Contact - 11.43 cm |  |

| PDF417 - 15 mil       | 3.30" - 14.80" | 8.38 - 37.59 cm         | 3.20" - 5.60"   | 8.13 - 14.22 cm    |
|-----------------------|----------------|-------------------------|-----------------|--------------------|
| Data Matrix - 4 mil   | N/A            | N/A                     | 1.00" - 2.10"   | 2.54 - 5.33 cm     |
| Data Matrix - 5 mil   | N/A            | N/A                     | 0.40" - 2.70"   | 1.02 - 6.86 cm     |
| Data Matrix - 7.5 mil | 2.10"          | - 5.50" 5.33 - 13.97 cm | Contact - 3.50" | Contact - 8.89 cm  |
| Data Matrix - 10 mil  | 1.10"          | - 7.10" 2.79 - 18.03 cm | Contact - 4.40" | Contact - 11.18 cm |
| QR Code - 4 mil       | N/A            | N/A                     | 1.10 - 1.40"    | 2.79 - 3.56 cm     |
| QR Code - 5 mil       | N/A            | N/A                     | 0.50" - 2.20"   | 1.27 - 5.59 cm     |
| QR Code - 7.5 mil     | N/A            | N/A                     | Contact - 3.30" | Contact - 8.38 cm  |
| QR Code - 10 mil      | 1.50" - 6.10"  | 3.81 - 15.49 cm         | Contact - 4.00" | Contact - 10.16 cm |

For more information, including decode zone pictorial, see the Product Reference Guide located in the Support and Documents tab at <a href="http://www.zebra.com/ds3578">www.zebra.com/ds3578</a>



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