



Symbol DS3478 Series

Rugged cordless digital scanners



FEATURES

Ability to read all standard 1D and 2D bar codes

Increases productivity by leveraging the high performance of 2D bar codes: one device reads all industry standard bar codes

Ability to capture high density bar codes (HD unit only)

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

Ability to read a wide variety of DPM marks (DPM unit only)

Enhances quality processes and improves lifetime product traceability

Integrated Bluetooth Class 1 v 1.2

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

Capture bar codes, images and direct part marks with laser-like precision

The Symbol DS3478 Series of cordless rugged digital scanners is designed to bring high performance data capture to harsh industrial environments to improve business efficiency. This scanner family offers digital imaging technology, providing the rapid and accurate capture of one-dimensional (1D) and two-dimensional (2D) bar codes, images and direct part marks (DPM) with the high performance typically found only in laser scanners. Regardless of the types of data capture required in your enterprise, there is a DS3478 Series model that will fit your needs.

Cordless freedom improves productivity

Integrated Bluetooth eliminates the cord between the scanner and the host, enabling employees to move freely throughout the work environment. Productivity, efficiency, and even worker safety can be improved. Plus, the elimination of the cord reduces downtime from cable breakdowns — a common point of failure in handheld devices used in industrial environments.

High performance that speeds productivity

Designed specifically for fast-paced production environments, the DS3478 Series is equipped with charge coupled device (CCD) image sensors, which enable faster and more accurate data capture and processing than typical digital scanners.

The wide working range and two-position smart focus technology, unique to Motorola, enable fast and accurate reading of bar codes of virtually any size or density. Omni-directional scanning functionality eliminates the need to align the bar code and scanner, allowing operators to quickly capture bar codes and marks from any angle.

Built for industrial environments

As innovative as it is rugged, the DS3478 Series delivers the ergonomic and operational features for scan-intensive industrial applications under the harshest operating conditions. The device is designed to perform reliably despite the inevitable bumps and drops — even on concrete. An IP65-rated seal makes it impervious to dust and water, and the exit window is scratch-resistant and recessed for the highest level of durability. As a result, enterprises enjoy a low total cost of ownership — employee and device downtime as well as equipment repair and replacement costs are minimized.

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. Symbol's DS3478 Series addresses this challenge with bright LEDs and an adjustable volume beeper, ensuring that decode feedback is clearly visible and audible to users, saving valuable worker time.

Omni-directional scanning

Increases productivity by eliminating the need to orient scanner and bar code

Rugged design withstands multiple 6.5 ft./2 m drops to concrete

Ensures maximum reliability with less downtime resulting from accidental drops

IP65-rated sealing

Protects against water and dust for reliable performance in harsh industrial conditions

Bright LED and beeper with adjustable volume

Multiple confirmation modes for positive user feedback in noisy environments

Two-position smart focus

Unique to the Symbol DS3478 Series, this feature provides two focal positions for optimum application flexibility and performance

Advanced data formatting

Eliminates costly modifications to the host software

Multiple on-board interfaces and universal cable set

Ensures flexible connectivity with different hosts; enables easy upgrading of hosts and cable replacement; provides investment protection

Three models to meet many needs

This diverse product line offers a number of models designed to meet a wide variety of application needs across a variety of industries:

DS3478-SF: Flexible 1D and 2D bar code capture

The DS3478-SF offers the flexibility to meet the needs of a wide variety of applications and environments, with 1D and 2D bar code scanning as well as support for a wide variety of interfaces for easy integration with new and legacy systems. The DS3478-SF is designed to streamline inventory management in 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 enables automatic reconciliation of 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, eliminating false out-of-stocks due to misplacement — and lost sales. In shipping, a quick scan verifies that the right shipment is addressed to the right person, eliminating costly mis-ships.

DS3478-HD: Optimized for comprehensive 2D bar code capture

The DS3478-HD offers the same capabilities as the DS3478-SF, but is optimized for the very tiny and dense 2D bar codes frequently found in warehousing, transportation and logistics, and manufacturing environments. In manufacturing operations, the DS3478-HD allows even small parts with small bar code labels to be easily scanned to verify that the right part is used at the right time. As a result, product quality improves, increasing customer satisfaction and retention. Real-time inventory visibility allows manufacturers to reduce standard stocking levels, reducing warehouse space requirements and increasing inventory turns and profitability. And in the event you are notified of a defective part, you can easily trace the location of defective product for more rapid and targeted recalls, protecting brand image, customer perception and recall costs. And companies involved in warehousing, shipping and delivery of smaller items can easily read the small, dense 2D bar codes that may be utilized on smaller packages.

DS3478-DP: Comprehensive bar code scanning with support for 1D, 2D and DPM bar codes

In automotive, aerospace, medical and other heavy manufacturing environments, a wide variety of data types are typically in use, including 1D and 2D bar codes as well as permanent bar codes, known as direct part marks (DPM). The DS3478-DP provides manufacturers with a single flexible device capable of capturing all 1D and 2D bar codes as well as every type of direct part mark — including dot peen. This powerful scanner combines highly advanced DPM-specific software with the functionality of the DS3478-SF and the focusing capability of the DS3478-HD, allowing workers to easily capture even the very tiny and dense marks frequently utilized in DPM applications.

Reduce capital and operational expenses

The ability to capture multiple data types with a single device eliminates the need to purchase, manage and maintain multiple devices to accommodate multiple bar code symbologies in the enterprise. As a result, the enterprise enjoys a fast return on investment. Since one device does it all, capital and operational costs are reduced — and productivity is increased. Less training is required. And the simplification of the mobility architecture translates into less demand on your IT staff, leaving them more time to address more crucial IT business initiatives.

An investment for now and the future

In addition to the productivity-enhancing features you need to keep business moving, the DS3478 Series provides you with investment protection. Onboard support for multiple interfaces, a standard feature, allows you to use your scanner with many different types of systems for seamless integration now, as well as painless migration to the new systems of the future. We back up our leading scanner design with a full three-year warranty. And to help protect your investment, Motorola Enterprise Mobility Services offers Service from the Start with Comprehensive Coverage. This unique service goes far beyond normal wear and tear to include accidental damage to exit windows, scan elements and more at no additional charge.

For more information

For more information on the Symbol DS3478 Series of rugged, cordless, handheld scanners and the full line of accessories, access our global contact directory at www.motorola.com/enterprise/contactus or visit us on the Web at www.motorola.com/ds3478

Symbol DS3478 Series Specifications

Physical characteristics			
Dimensions:	7.34 in. L x 4.82 in. W x 2.93 in. D 18.65 cm H x 12.25 cm W x 7.43 cm D)	Sealing:	Sealed to IP65 specifications
Weight (w/o cable):	14.6 oz. (414 gm)	Drop specs:	Unit functions normally after repeated 6.5 ft. (2 m) drops to concrete
Battery:	2200 mAh Lithium Ion Battery	Ambient light immunity:	Immune to direct exposure of normal office and factory lighting conditions, as well as direct exposure to sunlight: Outdoor: 10,000 foot-candles/107,600 Lux
Battery charge time:	Fully charged (100%) in 3 hours	Electrostatic discharge (ESD):	Conforms to 15 kV air discharge and 8 kV of contact discharge
Color:	Twilight Black and Yellow	Cradles	STB 3408 and FLB 3408 STB 3478 and FLB 3478
Performance characteristics		Power reqs.:	4.75 – 14 VDC 4.75 – 14 VDC
Light source:	650 nm visible laser diode	Typical current draw:	
Resolution:	640 x 480	Not charging:	10 mA 105 mA @5V 45 mA @9V
Min. element width:	4 mil (0.102mm)	Fast rate charge:	915 mA @5V 915 mA @5V 660 mA @9V 660 mA @9V
Nominal working distance:	Please see decode zone	Slow rate charge:	480 mA @5V 480 mA @5V 345 mA @9V 345 mA @9V
Print contrast:	25% minimum reflective difference	Radio link:	N/A Bluetooth class 1 (2.4 GHz), Class 2
Roll (Tilt) ¹ :	±180 degrees from normal	Radio specification	
Pitch ² :	±60 degrees from normal	Radio:	Bluetooth, Class 1, Version 1.2
Skew (Yaw) ³ :	±50 degrees from normal	Radio range:	Up to 300 ft. (100m) direct line of sight in open air (See Technical Brief for more information)
1D Codes:	UPC.EAN, UPC.EAN with Supplementals, GS1-128 (formerly UCC/EAN 128), JAN 8 & 13, Code 39, Code 39 Full ASCII, Code 39 Trioptic, Code 128, Code 128 Full ASCII, Codabar (NW7), Interleaved 2 of 5, Discrete 2 of 5, Code 93, MSI, Code 11, Code 32, Bookland EAN, IATA, GS1DataBar (formerly RSS)	Frequency:	2.4 GHz
2D codes:	PDF417, microPDF417, Maxicode, Data Matrix (ECC 2000), Composite Codes, QR Code	Regulatory	
Postal codes:	U.S. Postnet, U.S. Planet, U.K. Postal, Japan Postal, Australian Postal, Dutch Postal, 4State Postal	Input transient protection:	IEC 1000-4-(2,3,4,5,6,11)
DPM Marks (DPM unit only):	Data matrix marks applied by dot peening, laser etching, chemical etching, ink marking, molding, stamping or casting methods to multiple substrates including metal, plastic or glass	EMI/RFI:	FCC Part 15 Class B, ICES-003 Class B, European Union EMC Directive, Japan VCCI/MITI/Dentori
Interfaces supported:	RS232, Keyboard Wedge, Wand Emulation, Scanner Emulation, IBM 468X/469X, USB and Synapse	Laser safety:	CDRH Class II, IEC Class 2
User environment		Warranty	
Operating temp.:	-4° to 122°F (-20° to 50°C)	The Symbol DS3478 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.	
Storage temp.:	-40° to 140°F (-40° to 60°C)	Recommended Service	
Humidity:	5% to 95% relative humidity, noncondensing	Service from the Start – Bronze	

1 - Roll (Tilt): Controlled by rotating the wrist clockwise or counterclockwise
 2 - Pitch: Controlled by dropping or raising the wrist
 3 - Skew (Yaw): Controlled by rotating the wrist from left to right or vice versa

*See back for decode zone.

SPECIFICATION SHEET

Symbol DS3478 Series

DS3478 Series Decode Zone

Label Density	Depth of Field			
	DS3478-SF		DS3478-HD/DS3478-DP	
	English	Metric	English	Metric
Code 39 - 5 mil	2.00" - 6.00"	5.08 - 15.24 cm	1.64" - 7.50"	4.17 - 19.05 cm
Code 39 - 7.5 mil	1.30" - 8.50"	3.30 - 21.59 cm	2.10" - 9.50"	5.33 - 24.13 cm
Code 39 - 20 mil	Up to 20.00"	Up to 50.80 cm	Up to 15.00"	Up to 38.10 cm
100% UPC - 13 mil	0.80" - 14.50"	2.03 - 36.83 cm	2.70" - 11.00"	6.86 - 27.94 cm
PDF417 - 6.67 mil	2.30" - 4.50"	5.84 - 11.43 cm	2.50" - 7.60"	6.35 - 19.30 cm
PDF417 - 10 mil	1.80" - 8.80"	4.57 - 22.35 cm	Up to 9.50"	Up to 24.13 cm
PDF417 - 15 mil	Up to 12.3"	Up to 31.24 cm	Up to 10.70"	Up to 27.18 cm
Data Matrix - 4 mil	N/A	N/A	0.88" - 1.92"	2.24 - 4.88 cm
Data Matrix - 5 mil	1.79" - 3.58"	4.55 - 9.09 cm	0.63" - 2.00"	1.60 - 5.08 cm
Data Matrix - 7.5 mil	1.58" - 4.54"	4.01 - 11.53 cm	0.58" - 2.38"	1.47 - 6.05 cm
Data Matrix - 10 mil	1.25" - 5.00"	3.18 - 12.70 cm	0.50" - 2.42"	1.27 - 6.15 cm
QR Code - 4 mil	N/A	N/A	0.83" - 1.63"	2.11 - 4.14 cm
QR Code - 5 mil	2.07" - 3.00"	5.26 - 7.62 cm	0.83" - 1.96"	2.11 - 4.98 cm
QR Code - 7.5 mil	1.71" - 4.25"	4.34 - 10.80 cm	0.67" - 2.34"	1.70 - 5.94 cm
QR Code - 10 mil	1.21" - 4.83"	3.07 - 12.27 cm	0.33" - 2.54"	0.84 - 6.45 cm

For more information, including decode zone pictorial, see the Product Reference Guide located in the Resources tab at www.motorola.com/ds3478.



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