DS2200 Series Handheld Imagers

Affordability and Simplicity Delivered

2D barcodes have made their way to your Point of Sale, appearing on everything from the items your customers are purchasing to printed and electronic coupons and loyalty cards. Your 1D scanner can't capture the new 2D codes, leading to exceptions that slow down the check-out process and frustrate customers at that key last personal touchpoint in your store. But with the DS2200 Series, you can scan it all. You get an affordable 1D/2D imager that doesn't compromise performance or features for price. Your workers get best-in-class first-time, everytime scanning with point-and-shoot simplicity. You get an imager that couldn't be easier to deploy and manage. And you can choose the model that best fits your POS needs — the corded DS2208 or the cordless DS2278. The DS2200 Series — the affordability your budget demands, with the deployment, ease-of-use and management simplicity your business requires.

Easy to Deploy

Pre-configured and ready to use, right out of the box
Since the default settings are optimized for the majority of scanning applications, you can use the DS2200 Series imager the moment you take it out of the box — no configuration required.

Auto-host detect cables
Just plug the DS2200 Series into your Point of Sale (POS) and the auto-host detect cables will automatically identify the interface and connect the imager, simplifying and reducing setup time.

Easy integration with a tablet-based POS
The DS2200 Series offers all the features you need to add high-quality scanning to your tablet-based POS. The Micro USB cable provides a low-cost charging alternative to a cradle. And with our simplified app development tools, you can easily configure and update the DS2200 Series right from the tablet.

Deploy anywhere in the world
With over 90 international keyboards, the DS2200 Series is easy to deploy all around the world.

Easily customize settings with 123Scan
This complementary software tool is so intuitive that even a first time user can easily set up a DS2200 Series imager. The wizard-driven interface makes it easy to embed all settings into a single programming barcode, enabling you to configure your devices with a single scan.

Backwards compatible with Zebra LS2208 series cables
If you use Zebra's 1D LS2208 scanners today, you can use the same universal cables with the DS2200 Series, allowing you to leverage your existing accessory investment to minimize the cost of upgrading to a 1D/2D imager.

The DS2200 Series — the affordability your budget demands, with the simple deployment, ease-of-use and manageability your business requires.
For more information, visit www.zebra.com/ds2200 or access our global contact directory at www.zebra.com/contact.

Easy to Use

Instant decoding with PRZM intelligent imaging

Only from Zebra, PRZM's software decode algorithms for the DS2200 Series deliver superior performance on poor quality barcodes. The result is first-time, every-time scanning to help your workers improve productivity at the checkout counter.

Unsurpassed scanning range

Workers can scan barcodes across a wide range (0.5 in./1.23 cm to 14.5 in./36.8 cm), improving checkout speed and reducing training time.

Point-and-shoot scanning simplicity

With omni-directional scanning, users never need to line up the imager and the barcode — unlike 1D scanners.

Patent pending technology for the most intuitive aiming

The aim line is similar to the 1D scanners you have today, providing your associates with a familiar experience. Additionally, the aim line guides users to scan at the ideal distance from the barcode — especially helpful when capturing wide barcodes.

Easiest pairing on the planet

With our industry-first Scan-to-Connect technology, your workers can pair the cordless DS2278 with any Bluetooth®-enabled PC, tablet or smartphone in a single step.

Fast, easy and flexible charging

Plug the imager directly into the host or any standard wall socket via the Micro USB cable to charge the DS2278 in just an hour without the cradle. The Presentation Cradle, which provides hands-free scanning, charges the DS2278 in just four hours. The Presentation Cradle charges the battery during use, so you can keep the scanner in service during charging. And since the Presentation Cradle doesn't require a separate power supply, there are fewer accessories to purchase and manage.

Unique direct decode indicator improves productivity

The illumination on the barcode flashes to indicate a good decode, so workers know instantly if the barcode was captured correctly — regardless of how noisy the environment might be.

On-the-fly switching between handheld and hands-free scanning

Regardless of whether your workers are using the corded DS2208 or the cordless DS2278, workers can simply place the imager in its presentation stand to automatically switch to hands-free mode – no change of settings is required.

Guaranteed full shift battery power

With 14 hours of power, your cordless DS2278 imagers are always available for use — no need to waste time recharging during the business day.

Easy to Manage

Control your scanners from a smartphone, tablet or PC

You can easily control the beeper, LED and Symbology settings; display scanned barcode data; access model and serial number information and more from Windows, Android and iOS hosts.

Eliminate Bluetooth interference with Zebra's proprietary Wi-Fi friendly mode

Ensure that your cordless DS2278 Bluetooth imagers only operate on channels that are not shared with your WLAN, protecting WLAN service levels for your workers and your customers.

A battery designed to last

The long-lasting 2400 mAh Lithium Ion battery in the cordless DS2278 will likely never need to be replaced, reducing total cost of ownership and simplifying everyday management by eliminating the need to purchase and manage a battery pool.

No-cost tools to meet advanced management and application development needs

If you have Imagers in different locations, you can remotely manage them all with our Scanner Management Service (SMS) application. Need a custom scanning application? Our Scanner Software Development Kits (SDKs) provide everything you need, including documentation, drivers, test utilities and sample source code for Windows, Android, iOS and Linux.

DS2200 Series Specifications

Physical Characteristics

Dimensions	Corded DS2208: 6.5 in. H x 2.6 in. W x 3.9 in. D 16.5 cm H x 6.6 cm W x 9.9 cm D Cordless DS2278: 6.9 in. H x 2.6 in. W x 3.5 in. D 17.5 cm H x 6.6 cm W x 9.0 cm D Presentation Cradle: 2.8 in. H x 3.7 in. W x 4.8 in. D 7.2 cm H x 9.4 cm W x 12.2 cm D
Weight	Corded DS2208: 5.7 oz. / 161.6 g Cordless DS2278: 7.5 oz. / 214 g Presentation Cradle: 5.2 oz. / 151 g
Input Voltage Range	DS2208/DS2278 and Cradle: 4.5 to 5.5 VDC Host Powered; 4.5 to 5.5 VDC External Power Supply
Current	Corded DS2208 Operating Current at Nominal Voltage (5.0V): 250 mA (typical). (Note: Auto-Aim and Illumination on Acquiring Image) Corded DS2208 Standby Current (idle) at Nominal Voltage (5.0V): 150 mA (typical). (Note: Auto-Aim On) Presentation Cradle and Micro USB Cable: 500 mA (typical) Standard USB; 1100 mA (typical) BC 1.2 USB
Color	Nova White, Twilight Black
Supported Host Interfaces	USB, RS232, Keyboard Wedge, TGCS (IBM) 46XX over RS485
Keyboard Support	Supports more than 90 international keyboards
User Indicators	Direct Decode Indicator; good decode LEDs; Rear view LEDs; beeper (adjustable tone and volume)

Performance Characteristics

Motion Tolerance (Handheld)	Up to 5 in./13 cm. per second for 13 mil UPC
Swipe Speed (Hands-Free)	Up to 30.0 in./76.2 cm. per second for 13 mil UPC
Light Source	Aiming Pattern: Linear 624nm Amber LED
Illumination	(2) 645nm Super-Red LEDs
Imager Field of View	32.8° H x 24.8° V Nominal
Image Sensor	640 x 480 pixels
Minimum Print Contrast	25% minimum reflective difference
Skew/Pitch/Roll Tolerance	+/- 65°; +/- 65°; 0-360°
Minimum Element Resolution	Code 39 - 4.0 mil; Code 128 - 4.0 mil; Data Matrix - 6.0 mil; QR Code - 6.7 mil

Regulatory

Electrical Safety	EN 60950-1 2ed + A11 + A1 + A12 + A2:2013, IEC 60950-1 2ed + A1 + A2, UL 60950-1, CAN/CSA-C22.2 No. 60950-1-07
Environmental	RoHS EN 50581
LED Safety	IEC 62471
IT Emissions	EN 55032 (Class B)
IT Immunity	EN 55024
Harmonic Current Emissions	EN 61000-3-2
Voltage Fluctuation and Flicker	EN 61000-3-3
Radio Frequency Devices	47 CFR Part 15, Subpart B, Class B
Digital Appartus	ICES-003 Issue 6, Class B

Cordless Accessories

CR2278 Presentation Cradle, Spare Battery, Micro USB Cable

Decode Capabilities[3]

Input Voltage Range	DS2208/DS2278 and Cradle: 4.5 to 5.5 VDC Host Powered; 4.5 to 5.5 VDC External Power Supply
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, Composite Codes, TLC-39, Aztec, DataMatrix, MaxiCode, QR Code, Micro QR, Han Xin, Postal Codes

Warranty

Subject to the terms of Zebra's hardware warranty statement, the DS2200 Series is warranted against defects in workmanship and materials for the following period from the date of shipment: DS2208 Corded Scanner: Sixty (60) months; DS2278 Cordless Scanner: Thirty-six (36) months; CR2278 Presentation Cradle: Thirty-six (36) months; Battery: Twelve (12) months. For the complete Zebra hardware product warranty statement, go to: http://www.zebra.com/warranty.

Recommended Services

Zebra OneCare Select; Zebra OneCare Essential

Utilities and Management

123Scan	Programs scanner parameters, upgrades firmware, provides scanned barcode data and prints reports. www.zebra.com/123Scan
Symbol Scanner SDK	Generates a fully-featured scanner application, including documentation, drivers, test utilities and sample source code. www.zebra.com/scannersdkforwindows

Put the DS2200 Series to work in:

Retail

• Point-of-Sale (POS)
• Loyalty applications
• Electronic coupon redemption

Hospitality

• Check-in
• Ticketing (concerts, sporting events and more)
• Loyalty cards

Transportation and Logistics

• Back-of-store shipping and receiving
• Product tracking
• Ticketing (airports, train and bus terminals)
• Postal

Light/Clean Manufacturing

• Product and component tracking
• Work-in-Process (WIP)

Government

• Lottery and gaming
• Administration
• Banking

User Environment

Operating Temperature	DS2208/DS2278 Imagers: 32.0° to 122.0° F/0.0° to 50.0° C Presentation Cradle: 32.0° to 104.0° F/0.0° to 40.0° C
Storage Temperature	-40.0° to 158.0° F/-40.0° to 70.0° C
Humidity	5% to 95% RH, non-condensing
Drop Specification	Designed to withstand multiple drops at 5.0 ft./1.5 m to concrete
Tumble Specification	Designed to withstand 250 tumbles in 1.5 ft./.5 m tumbler[1]
Environmental Sealing	IP52
Electrostatic Discharge (ESD)	DS2208/DS2278 and CR2278 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 107,600 Lux

Radio Specifications

Bluetooth Radio	Standard Bluetooth Version 4.0 with BLE: Direct line of sight in open air: Class 2: Minimum 30 ft. (10.0 m) and up to 300 ft. (100.0 m) when paired with CR2278 cradle. Environmental factors may impact results. Serial Port and HID Profiles; output power adjustable down from 2.0 dBm in 8 Steps

Battery

Battery Capacity/Battery Type	2,400 mAh Li-Ion Battery
Scans Per Battery Charge2	110,000 scans at 60 Scans per Minute or 50,000 scans at 10 Scans per Minute
Operating Time Per Full Charge2	84.0 Hours
Charge Time (from Empty)	14 Hour Shift Hours / Full Charge Hours
Standard USB	14 Hour Shift Hours: 4 Full Charge Hours: 17
BC1.2 USB	14 Hour Shift Hours: 1 Full Charge Hours: 5
External 5V Source	14 Hour Shift Hours: 1 Full Charge Hours: 5
Micro USB	14 Hour Shift Hours: 1 Full Charge Hours: 7
BC1.2 Micro USB	14 Hour Shift Hours: 1 Full Charge Hours: 4

Utilities and Management

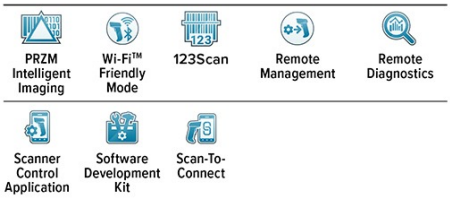
Scanner Management Service (SMS)	Remotely manages your Zebra scanner and queries its asset information. www.zebra.com/sms

Decode Ranges (Typical)[4]

Code 39	Resolution: 5 mil Near: .2in./.5cm Far: 6.0 in/15.2 cm.
Code 128	Resolution: 5 mil Near: .6in./1.5 cm. Far: 4.0 in./10.1 cm.
PDF417	Resolution: 6.7 mil Near: .8 in./2.0 cm Far: 5.7 in/14.5 cm.
UPC	Resolution: 13 mil (100%) Near: .5 in./.1.3 cm Far: 14.5 in./36.8 cm.
Data Matrix	Resolution: 10 mil Near: .3in./.8 cm. Far: 6.2 in./15.7 cm.
QR	Resolution: 20 mil Near: .0 in./.0cm Far: 11 in./27.9 cm.

Footnotes

1. Note: 1 tumble = 0.5 cycle.
2. Simulated Checkout profile of 10 scans in 10 seconds with a 50 second rest.
3. Refer to Product Reference Guide for complete list of symbologies.
4. Printing resolution, contrast, and ambient light dependent.



NA and Corporate Headquarters
+1 800 423 0442
inquiry4@zebra.com

Asia-Pacific Headquarters
+65 6858 0722
contact.apac@zebra.com

EMEA Headquarters
zebra.com/locations
contact.emea@zebra.com

Latin America Headquarters
zebra.com/locations
la.contactme@zebra.com

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