DS55 Series Fixed Mount Scanner

Proven scanning performance in a compact, fits anywhere design

The compact DS55 Fixed Mount Scanner puts high-performance scanning wherever you need it — the retail counter, self-service and ticketing kiosks, contactless pickup lockers, boarding gates and more. A versatile design lends itself to both standalone and embedded applications. With a tiny footprint, the DS55 Series fits into the smallest of kiosks, while its modern and elegant design blends seamlessly in any décor. Flexible mounting options, including support for third-party accessories, enable the DS55 Series to meet a wide range of applications. Zebra's industry-leading performance ensures flawless high-volume scanning of any 1D and 2D barcode, including mobile barcodes on customer phones. And Zebra DNA ensures maximum performance year after year and makes it easier than ever to integrate, deploy and manage your scanners.

Scan it All, Everywhere

Give Every User a Better Scanning Experience
Both seasoned employees and novice self-service users can count on first-time, every-time scanning with Zebra's Intelligent Imaging technology. A megapixel sensor delivers 184% higher resolution than the previous generation DS457 for superior performance on damaged and poorly printed barcodes. Fast swipe speeds ensure barcodes are captured as quickly as they're presented. A large, omni-directional field of view makes scanning easier than ever, as there's less need to carefully position barcodes for a successful scan.

Engineered to Read Virtually Any Barcode
Whether your applications call for 1D or information-rich 2D barcodes, printed or mobile, including image capture or OCR, the DS55 Series can handle them all. Enhanced performance on mobile barcodes, including those on dimly lit screens, ensures that customer's electronic tickets, boarding passes, loyalty cards and coupons are effortlessly scanned.

Versatility Redefined — One Scanner Meets Multiple Needs

Fits in the Smallest of Spaces
The tiny DS55 Series is ideal wherever a zero or minimal footprint is required. At just 1.2 in H x 2.2 in W x 2.8 in D (3.0cm H x 5.6cm W x 7.2cm D), the scanner can be mounted just about anywhere — attached to the register, under the counter for a true zero footprint, on the retail cashwrap, or a space-constrained light manufacturing workstation. And its sleek, elegant aesthetics are ideal for even the trendiest boutique.

Easy Integration into Self-Service Solutions
The DS55 Series can be integrated into the most space-constrained products to bring world-class scanning performance to self-service kiosks, contactless pickup lockers, buy online pickup in store (BOPIS) kiosks, lottery terminals, ticketing kiosks and more. Integration into your product designs is easy. The flat face design can be flush mounted for a clean look. If you have a Zebra DS457 deployed today, the DS55 Series offers similar dimensions and matching mounting hole locations for an easy replacement.

Bring proven scanning performance to the smallest of spaces with the compact, fits anywhere DS55 Series.

For more information, please visit www.zebra.com/ds55series

All the Cables You Need

Multiple cable options — including 2 ft (0.6m) and 7 ft (2.1m), straight and right-angle connectors — provide just the right fit for your particular needs.

User-friendly Illumination and Aimer

Soft white illumination is easy on the eyes and the green LED aimer is easy to see in a variety of lighting conditions, making the DS55 Series a great fit for all applications, including ones sensitive to red light sources or safety issues with laser aimers.

Feedback You Can Hear in Any Environment

The DS55 Series features good decode LEDs and an adjustable beeper that's twice as loud as the DS457. Users can easily confirm a successful scan even in loud environments or when the scanner is embedded inside a kiosk or locker.

Instantly Capture and Process Driver's License Data

Use the information on a driver's license to instantly verify age and identification, populate loyalty and credit card applications and more.

Capture OCR, Images and Documents

The DS55 Series makes it easy to take high quality images of prescriptions, ID cards, checks and more. Support for multiple OCR fonts streamlines and error-proofs data collection.

Flexible Mounting Options

Standard Mount Opens Up Virtually Limitless Possibilities

The DS55 Series features a standard ¼ - 20 camera mount for quick and easy mounting to a wide range of third-party accessories — clamps, poles, swivels, wall mounts, vehicle dash mounts and more. You can always find the right accessory for your specific need.

Triple Your Mounting Options with an Innovative 3-in-1 Mount

Zebra's new 3-in-1 mounting accessory is a computer display mount, wall mount and presentation stand all in one. The magnetic mounting face securely holds the DS55 Series scanner in place, while letting the scanner swivel to either side as needed. It's easy to lift the scanner off to scan an item in handheld mode, then pop it back on.

Low Cost of Ownership

Designed to Survive Spills and Drops

The DS55 Series offers the durability needed to handle all-day, everyday use in a variety of applications and environments. It's built to withstand 5 ft (1.5m) drops to concrete and IP54 sealing protects against spills and dust.

Superior Reliability

The DS55 Series is backed by a 3-year warranty. Since Zebra data capture products are proven to have less than 0.5% failure rates, you can be confident in the long-term reliability of your scanner.

Easy Application Development

Get everything you need to easily integrate scanning into your business applications with our Scanner Software Development Kits (SDKs) for Windows, Android, iOS and Linux. These SDKs provide documentation, drivers, test utilities and sample source code.

Multi-Interface Flexibility

Every DS55 Series scanner supports both RS232 and USB to help future-proof your investment. If you migrate your host from RS232 to USB, you won't need to purchase new scanners. And the DS55 Series is USB Certified for worry-free integration.

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. The result? You can mine the data and get the insights needed to make 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 event verification, blockchain traceability, pilot site ROI generation, troubleshooting and predictive fleet-wide trend analysis.

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 offers a patented configuration wizard that 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. ScanSpeed Analytics helps identify poor performing barcodes that slow down transactions. Advanced parsing tools streamline the capture of more kinds of data. Powerful complimentary management software enables easy remote management. And much more.

Specifications

Physical Characteristics

Dimensions	1.2 in H x 2.2 in W x 2.8 in D (3.0cm H x 5.6cm W x 7.2cm D)
Weight	2.3 oz (65.2g)
Input Voltage Range	4.75 to 5.25 VDC Host Powered; 4.75 to 5.25 VDC External Power Supply
Operating Current at Nominal Voltage (average)	Presentation Mode: 360 mA RMS (Typical), Trigger Mode: 350 mA RMS (Typical)
Standby Current (Idle) at Nominal Voltage (average)	Presentation Mode: 185 mA RMS (Typical), Trigger Mode: 155 mA RMS (Typical)
Color	Alpine White, Midnight Black
Supported Host Interfaces	USB, RS232
USB Certification	USB Certification
User Indicators	Good Decode LEDs, Speaker (adjustable tone and volume)

Performance Characteristics

Swipe Speed (Hands-Free)	Up to 100 in (254cm) per second for 13 mil UPC in optimized mode
Image Sensor	1280 x 800 pixels
Aiming Pattern	Circular 525 nm True Green LED
Illumination	(1) Warm White LED
Imager Field of View	48° H x 30° V nominal
Minimum Print Contrast	15% minimum reflective difference
Skew Tolerance	+/- 60°
Pitch Tolerance	+/- 60°
Roll Tolerance	0°-360°

Imaging Characteristics

Graphics Format	Images can be exported as Bitmap, JPEG or TIFF
Image Quality	200 PPI on a 6.0 x 3.8 in (15.2 x 9.5cm) document @ 7.0 in (17.8cm)

User Environment

Operating Temperature	-4F to +122F (-20C to +50C)
Storage Temperature	-40F to +158F (-40C to +70C)
Humidity	5% to 95% RH, non-condensing
Environmental Sealing	IP54

Decode Ranges (Typical)[1]

Symbology/Resolution	Near/Far
Code 39: 3 mil	Trigger Mode: 2.8 in to 5.6 in (7.1cm to 14.2cm) Presentation: 2.8 in to 5.6 in (7.1cm to 14.2cm)
Code 39: 4 mil	Trigger Mode: 2.4 in to 8.0 in (6.1cm to 20.3cm) Presentation: 2.4 in to 8.0 in (6.1cm to 20.3cm)
Code 39: 5 mil	Trigger Mode: 1.6 in to 10.0 in (4.1cm to 25.4cm) Presentation: 1.6 in to 9.0 in (4.1cm to 22.9cm)
Code 39: 7.5 mil	Trigger Mode: 2.1 in to 15.0 in (5.3cm to 38.1cm) Presentation: 2.2 in to 10.0 in (5.6cm to 25.4cm)
Code 39: 20 mil	Trigger Mode: 1.6 in to 35.9 in (4.1cm to 91.2cm) Presentation: 2.0 in to 18.0 in (5.1cm to 45.7cm)
Code 128: 3 mil	Trigger Mode: 2.9 in to 5.5 in (7.1cm to 14.0cm) Presentation: 2.9 in to 5.5 in (7.1cm to 14.0cm)
Code 128: 5 mil	Trigger Mode: 2.1 in to 9.6 in (5.3cm to 24.4cm) Presentation: 2.1 in to 8.5 in (5.3cm to 21.6cm)
PDF 417: 6.7 mil	Trigger Mode: 2.3 in to 9.9 in (5.8cm to 25.1cm) Presentation: 2.3 in to 8.9 in (5.8cm to 22.6cm)
UPC: 13 mil (100%)	Trigger Mode: 1.6 in to 24.7 in (4.1cm to 62.7cm) Presentation: 1.6 in to 14 in (4.1 cm to 35.6cm)
Data Matrix: 10 mil	Trigger Mode: 1.9 in to 10.8 in (4.8cm to 27.4cm) Presentation: 1.9 in to 9.5 in (4.8cm to 24.1cm)
QR: 20 mil	Trigger Mode: 0.9 in to 17.3 in (2.3cm to 43.9cm) Presentation: 0.9 in to 14.0 in (2.3cm to 35.6cm)

Accessories

Gooseneck Presentation Stand; 3-1 Mount (PC display mount, Presentation stand, Wall mount); supports third-party accessories that support a standard 1/4" - 20 mounting screw

Regulatory

Environmental	RoHS - EN IEC 63000:2018 Amendment 2015/863 WEEE RECAST 2012/19/EU China RoHS - SJ/T 11364 REACH - EC 1907/2006
Electrical Safety	EN 62368-1:2014/AC:2015 EN 62368-1:2014/A11:2017 IEC 62368-1:2014 EN IEC 62368-1:2020+A11:2020 IEC 62368-1:2018 UL 62368-1, third edition CAN/CSA-C22.2 No. 62368-1-19
LED Safety	EN 62471, IEC 62471 plus all amendments and all national deviations
EMI/RFI	FCC 47 CFR Part 15B, ICES-003, EN55032, EN55035, EN61000-6-2, EN60601-1-2, IEC60601-1-2, VCCI, and SABS

Markets and Applications

Retail and Hospitality

• Point of sale: self-checkout
• Buy online pickup in store (BOPIS)
• Price checks
• Mobile coupons
• Loyalty cards
• Driver's license parsing (N.A. only)
• Self-service kiosks

Light Manufacturing

• Work in progress (WIP)
• Asset tracking

Transportation

• Ticketing
• Identification verification
• Self-service kiosks

User Environment

Drop Specification	Designed to withstand multiple drops at 5 ft (1.5m) to concrete
Approved Cleaners	Refer to the product reference guide for the complete list of approved cleaners.
Electrostatic Discharge (ESD)	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

Symbol Decode Capability

1D	All major 1D barcodes including 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	All major 2D barcodes including PDF417, Micro PDF417, Composite Codes, TLC-39, Aztec, DataMatrix, MaxiCode, QR Code, Micro QR, Han Xin, Postal Codes, SecurPharm
OCR	OCR-A, OCR-B, MICR, US Currency
Minimum Input Resolution	Code 39: 3.0 mil; Code 128: 3.0 mil; Data Matrix: 5.0 mil; QR Code: 5.0 mil
	Refer to Product Reference Guide for complete list of symbologies.

Utilities and Management

123Scan	Programs scanner parameters, upgrades firmware, displays scanned barcode data, scanning statistics, battery health, asset data and prints reports. www.zebra.com/123scan
Scanner SDK	Generates a fully-featured scanner application, including documentation, drivers, test utilities and sample source code. www.zebra.com/scannersdkforwindows
Scanner Management Service (SMS)	Remotely manages your Zebra scanner and queries its asset information. www.zebra.com/sms

Warranty

Subject to the terms of Zebra's hardware warranty statement, the DS5502 is warranted against defects in workmanship and materials for a period of Three Years from the date of shipment. Complete Zebra hardware product warranty statement: www.zebra.com/warranty

Recommended Services

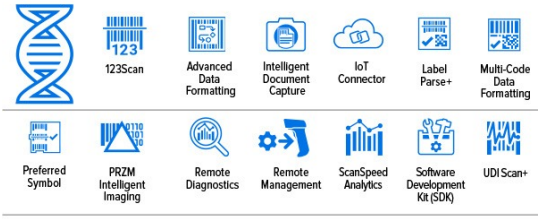
Zebra OneCare Select; Zebra OneCare Essential

Footnotes

1. Distance dependent on symbology type and size.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 about Zebra DNA and its applications, please visit www.zebra.com/zebradna



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