MS300R Bluetooth Ring Scanner

The Pinnacle of Hands-Free Scanning: Unrivaled Speed, Precision, and Hands-Free Versatility for Modern Industries.

Ultimate Adaptability Meets Peak Performance

Introducing MEFERI's revolutionary scanning solution - the MS300R. An embodiment of versatility and cutting-edge technology, this compact ring scanner transforms hands-free scanning. Its innovative dual-mode design allows users to switch between a traditional ring setup and an integrated glove mode, maximizing comfort and efficiency.

The prowess of Bluetooth BT 5.0+BR/EDR+BLE ensures swift data transfer, bolstered by the seamless pairing capabilities of NFC One Touch Easy Pair. Whether on bustling warehouse floors or amidst the meticulous order-picking in dark stores, the MS300R excels. Featuring a range of premium scanning modules, it effortlessly captures 1D and 2D barcodes from varying distances and angles. Its removable battery ensures continuity, eliminating downtime by simply swapping in a charged unit. For those upgrading from other systems, the MS300R is a leap forward, bringing together robust design, unparalleled performance, and the promise of MEFERI's OmniSoftware Suite.



Rapid Compatibility with ME10 Wearable Computer

Experience the seamless integration of the MS300R Scanner with the ME10 Wearable Computer. Leveraging the prowess of **Bluetooth BT 5.0+BR/EDR+BLE**, you enjoy not only lightning-speed data transfer but also the benefits of Bluetooth Low Energy (BLE) for longer-lasting power. Enhanced Data Rate (EDR) assures fluid, continuous workflows. With the inclusion of Bluetooth profiles such as HID and SPP, the scanner interacts flexibly and conveniently with Android mobile applications. This capability ensures tailored data management, aligning perfectly with specific business requirements of your enterprise.

Versatility of the MS300R Ring Scanner: Two-in-One Solution

1. Ring Mode: Unlock a seamless scanning experience with the MS300R worn as a ring. Slide it onto your finger, and with the ergonomically positioned scan button, initiate rapid barcode readings with a simple press of your thumb. This hands-free approach empowers users with the freedom to work unencumbered, leveraging faster scanning without juggling multiple devices.

2. Integrated Glove Mode: Transform your scanning strategy by integrating the MS300R with MEFERI's specialized glove. Crafted from high-quality microfiber, this glove not only offers durability but also an innovative mounting platform with Pogo pin contacts. Once the MS300R is securely mounted, it forms an electric connection with th e glove's built-in scan button, allowing for instant scans with each press. It's a unified solution that marries the strengths of the scanner with the adaptability of a glove.

In both configurations, the MS300R offers an invaluable hands-free scanning solution. Whether you're picking orders in dark stores or working with goods that require simultaneous scanning, the MS300R enhances efficiency. In real-world scenarios, such adaptability translates to a whopping 33% speed increase in order picking, showcasing the transformative power of flexible scanning solutions.

One-Touch NFC Pairing with the ME10 Computer

Step into the world of unparalleled convenience with the NFC One Touch Easy Pair feature. This cutting-edge technology

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ensures that the MS300R Scanner harmoniously and swiftly pairs with the MEFERI ME10 Wearable Computer. Gone are the days when employees had to tediously navigate through Android OS settings, searching for the scanner in a crowded list of available pairing devices. Now, it's as simple as touching the scanner to the ME10's casing and a single button press on its touch screen. This effortless method not only speeds up processes but also drastically reduces errors, enhancing overall operational efficiency.

Bluetooth-Powered Seamless Connectivity for Enhanced Productivity

Harness the power of the MS300R scanner's advanced Bluetooth capabilities to elevate your hands-free solution to the next level. With BT5.0+BR/EDR+BLE, the scanner ensures swift, uninterrupted data transmission between the MS300R and the ME10, providing a seamless experience even in demanding environments.

But it doesn't stop at mere data transmission. The Bluetooth integration facilitates a responsive control interface through Android applications on the ME10. This interactive platform paves the way for efficient data collection, processing, and management, streamlining operations and enhancing the overall efficiency of your hands-free solution. With the MS300R scanner, you're not just adopting technology; you're optimizing your entire workflow.

Unparalleled Selection of Advanced Scanning Modules

The MS300R scanner stands out with its unmatched range of both premium and budget-friendly scanning modules, adaptable to various tasks. Users are granted the flexibility to choose a configuration that aligns perfectly with their specific barcode scanning requirements. This vast selection of scanning modules for a ring scanner sets an industry benchmark.

Data Capture Highlights:

- **Cutting-Edge Scanning Engines:** MEFERI has integrated scanning engines that champion the Intelligent Capture Technology. This results in lightning-fast recognition and processing of barcodes and images. Coupled with optimized optical visualization, it promises an ultra-speedy scan of both printed and electronic 1D and 2D barcodes at different distances and at different angles.
- **PRZM Technology:** Found in Zebra scanners, this technology offers best-in-class scanning performance. It boasts a broad capture area, quick intelligent recognition, and even decodes smeared and dirtied barcodes with ease.
- **Zebra SE55 Long Range Scanner:** A testament to the scanner's capabilities, the SE55 can decode ranges from 20 mil to 100 mil, with distances spanning between 276.9 cm to a staggering 1407.2 cm. This means barcodes situated as far away as 15 meters, such as those on towering warehouse shelves, can be effortlessly scanned.
- **Scanner Engine Choices:** Options abound with configurations of SE4107 and SE55.

Experience rapid, accurate, and far-reaching scanning with this revolutionary hands-free solution.

Extended Battery Life for Uninterrupted Operations

Harnessing the power of cutting-edge battery technology, the MS300R scanner delivers unmatched performance to keep your operations running smoothly. Equipped with two battery options, users can choose from the standard 1000mAh battery, with a swift charging time of just 1.5 hours, or the enhanced 1250mAh battery which takes about 2 hours to fully charge.

Notably, the MS300R with the 1250mAh extended battery offers an impressive over 24-hour runtime, easily covering more than three full work shifts without the need for recharging. Dive deeper into specific scanner modules, and you'll find that Scanner Module N1 has very low power consumption and ensures battery operation with a staggering 72 hours of use, equivalent to nine full work shifts. However, battery performance can differ based on the module and usage patterns. For instance, the Zebra 4750SR and the Newland N1 modules offer anywhere from 11 to 72 hours depending on the connectivity method.

For businesses that require continuous uptime, battery longevity is pivotal. To ensure operations never halt, the MS300R scanner boasts easy-to-remove, rechargeable batteries. The thoughtful design extends to the charging solutions as well. With dedicated charging stations equipped with either 4 or 10 battery slots, batteries are simultaneously charged, ensuring no downtime. A clear LED indication for each slot eliminates guesswork - a green light for fully charged batteries and red for those still in the charging phase.

The ME10 wearable computer further complements this solution with its own 4-slot and 8-slot charging stations for its batteries. Thus, the entire hands-free solution is geared for non-stop, seamless business operations.

Unyielding Endurance & Superior Protection

The MS300R scanner is a testament to exceptional engineering, built for both performance and durability. Designed to handle the

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rigors of dynamic workspaces, it ensures reliable operation in varying temperatures and high humidity conditions. Its rugged build is evident, enduring multiple drops and countless tumbles, proving its resilience time and again. The IP65 sealing offers an added layer of defense against water, dust, and dirt. Notably, the scanner also stands firm against intense vibrations in machinery-heavy environments and is resilient to significant electrostatic discharges.

In addition to these robust features, the MS300R ring scanner boasts a unique protective frame around the scanning module's glass. This monolithic part of the housing offers unparalleled protection, safeguarding the glass from severe impacts, accidental drops, and everyday wear and tear. It's meticulously designed to resist forceful collisions with hard objects, ensuring the scanner remains at its optimal performance, regardless of the challenges thrown its way.

Power-Packed Performance with Qualcomm

At the heart of the MS300R scanner lies an advanced processing powerhouse - the Qualcomm QCC3034. This 120MHz dual-core processor ensures swift, seamless, and efficient operations, setting the scanner apart from many in its class. Coupled with the reliable Linux operating system and sufficient amount of memory space of 256KB RAM and 4MB FLASH, the MS300R promises not just speed but also reliability in performance. It's not just a scanner; it's a testament to superior technology, showing that not all portable scanners are created equal.

Adaptable Audio-Visual Feedback System

Step into enhanced operational adaptability with the MS300R scanner. Not only does it house a robust speaker that emits clear audio signals, even in bustling environments, but its unique visual feedback system truly sets it apart. Equipped with four versatile RGB LEDs, the scanner can display an array of colors corresponding to specific actions or modes. A green light for successful scans, red for incorrect ones, and blue to confirm connections are just a few default settings. But the customization doesn't stop there. While it comes with these basic, intuitive settings described in the product manual, it also offers a comprehensive configuration interface. Tailor its features according to your unique business processes and the ME10 software requirements. It's a harmonious blend of user-friendly default settings and advanced customization options.

Versatile Scanning with a Twist

Experience the unparalleled flexibility of the MS300R scanner's design. Its standout feature, the removable scan button, not only embodies versatility but also offers a practical advantage. Whether you're left or right-handed, the scanner effortlessly accommodates by allowing the button to be flipped, ensuring a comfortable fit for all users. Beyond hand preference, the MS300R can be integrated into a specially crafted glove made of breathable materials. This glove, complete with its own scan button, connects to the scanner's module, ensuring effortless scanning while worn. Gloves cater to both left and right hands, and are available in sizes: Medium, Large, and Extra Large.

Additionally, the removable design of the scan button also facilitates easy replacement, significantly reducing maintenance time and ensuring the scanner's longevity. Its ergonomic design and maintenance convenience are wrapped into one.

MEFERI OmniSoftware: Maximizing the MS300R & ME10 Potential

Unlock unparalleled potential with the MEFERI OmniSoftware Suite, tailored specifically for both MS300R and ME10. This comprehensive software isn't merely a toolkit; it's an essential gateway to maximizing device capabilities. Delve into an extensive range of industry-specific utilities and applications, each meticulously designed to ensure optimal performance and enhance operational efficiency across all MEFERI devices.

With ScanWizard, personalize your MS300R scanner experience. Delve into intricate configurations, adjust scan parameters with precision, and swiftly modify scan settings, ensuring every scan is optimized for your business needs. Beyond just scanner settings, OmniSoftware opens a world of customization and scalability, ensuring both the MS300R and ME10 are tuned to peak performance, harmoniously working in tandem to simplify and enhance every task. Experience the combined force of robust software and powerful hardware, ensuring that with MEFERI, you're always a step ahead.

Enterprise Mobility with MDM / EMM

MEFERI devices support leading MDM and EMM solutions, helping businesses securely deploy, configure, and manage enterprise Android fleets across retail, logistics, warehousing, manufacturing, field service, and public sector operations. Google-certified devices enable fast out-of-the-box setup, including Zero-Touch Enrollment and Zero Downtime Enrollment, allowing devices to receive Wi-Fi settings, security policies, OS parameters, and required business applications within minutes through a single QR code or barcode scan. IT teams can group devices, push apps from Google Play or private stores, enforce security rules, monitor status, and perform OTA firmware or OS updates centrally. Remote diagnostics, secure remote access, geolocation, battery lifecycle insights, and usage analytics help reduce downtime, simplify support, improve control, and maximize productivity across the entire device fleet.

Learn more about MDM / EMM solutions

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Physical Characteristics

Dimensions	With standard battery: 69*35.6*23.5 mm / 2.72 x 1.40 x 0.93 in With extended battery: 69*35.6*26.5 mm / 2.72 x 1.40 x 1.04 in
Weight	With standard battery: 76.5 g / 2.70 oz With extended battery: 83.2 g / 2.94 oz Without battery: 55 g / 1.94 oz
Scanner Glass Protection	**MS300R Ring Scanner: Strong Protection of Scanning Module's Glass.** The special protective frame (monolith part of the housing) around the glass of the scanning module. It provides maximum protection of the glass of the scanning module from hard impacts, falls, and careless use. The protection frame can withstand strong impacts from hard objects.
NFC Pairing with ME10	**NFC OneTouch Easy Pair.** The technology allows you to connect with lightning speed the MS300R ring scanner to the MEFERI ME10 Wearable Computer with One Tap. Eliminating the need for scanning barcodes or adjusting Bluetooth settings to identify and select the device. Bluetooth paring mode is also available.
Physical connection interfaces	USB 2.0 High-Speed (Client only) and Pogo Pin interface for reliable data transfer and charging; designed for durability and compatibility with industrial workflows.
Notifications	To get the most convenient notification in workspaces with a lot of noise, the scanner has additional notification capabilities related to scanning and functions: 1. three LED color indications (red/green/blue): status/scan; 2. vibrate alert.
Voice and Audio	Buzzer - support for custom sound and volume settings
Interface Ports	USB 2.0, Bottom Pogo Pin (2 pin) support charging
Power	Standard battery 1000mAh: ~1.5 hours charging time to 100% Extended battery 1250mAh: ~2 hours charging time to 100% MS300R Equipped with an enhanced 1250mAh Extended battery, it delivers over 24 hours* of run-time, enough for more than three full work shifts without recharging. Please note that the actual run-time of the MS300R scanner ring may vary based on the scanner module and usage pattern. Our tests conducted under the condition of 1 scan per 3 seconds reported the following results: Zebra 4750SR: HID 19 hours, SPP 18.5 hours, BLE 19.5 hours Zebra 4750MR: HID 16 hours, SPP 15.5 hours, BLE 17.5 hours Zebra 4107: HID 23 hours, SPP 19.5 hours, BLE 25 hours Zebra SE55: HID 15 hours, SPP 17 hours, BLE 14.5 hours Newland N1: HID 69 hours, SPP 68 hours, BLE 72 hours Newland EM3596: HID 20 hours, SPP 19.5 hours, BLE 20.5 hours *These estimates are based on specific battery and PCB technology interactions. **This long-lasting performance is achieved by scanning only certain fixed barcodes, resulting in low power consumption.
Scan Trigger Button	Removable, replaceable scan button. Allows you to use the ring scanner in two modes: 1. For right and left hand (the scanner button can be set in the desired position for left-handed and right-handed); 2. The scanner button is completely removable, to fix the MS300R on a special glove which also has an integrated glove scan button.

Performance Characteristics

Processor	Qualcomm QCC3034, Dual core 120MHz
Operating System	Linux
Memory	RAM 256KB / 4MB Flash; sufficient for dedicated device functions and scanning applications.
Optical Resolution	MAX: 1280 x 960 pixels
Roll	360°
Pitch	±60°
Skew	±60°
Aiming Element	Zebra SE4107: Green LED,1 warm white LED Zebra SE4750MR and SE4750SR: Red Laser cross-hair Red LED spot Zebra SE55: Green Laser 520 nm, 2 Warm-White LED Newland EM3596: Warm white LED Red laser 650nm Newland N1: Red LED (625nm), White LED
Bar Code Reading Angles	Zebra SE4107, Zebra SE4750SR, Zebra SE4750MR, Zebra SE55, Newland EM3596, Newland N1: Skew tolerance: ±60°, Pitch tolerance: ±60°, Roll tolerance: 360°
Field of View	Zebra SE4107: Horizontal: 44.5°, vertical: 33.5° Zebra SE4750SR: Horizontal: 48°, vertical: 36.7° Zebra SE4750MR: Horizontal: 31°, vertical: 23° Zebra SE55: Horizontal: 37°, Vertical: 21° Newland EM3596: Horizontal: 42°, Vertical: 28° Newland N1: Horizontal: 42°, Vertical: 31.5°
Ambient Light Immunity (from total darkness)	Max 107,639 lux (direct sunlight)

User Interface

LED	4 RGB LEDs located at the back side of the device (programmable)
Beeper	Up to 85 dBA @ 10 cm from the back of the device beeper port
Scan Triggering	Manual ambidextrous trigger

User Environment

Operating Temp	-10°C to 50°C 14°F to 122°F
Storage Temp	-20°C to 60°C -4°F to 140°F
Humidity	5% to 85% non-condensing
Drop Spec.	5 ft / 1.5 m multiple drops to concrete over operating temp
Tumble Spec.	1000hits, 1.6 ft / 0.5 m tumbles
Sealing	IP65 class protection from water, dust, dirt
Vibration	10000rpm Min, motor or rotating mechanism within the device
Electrostatic Discharge (ESD)	±10 kV air discharge; ±6 kV direct discharge

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Data Capture

Scanning	**Scanning Engines Advantages:** MEFERI uses scanner engines that support Intelligent capture technology of Barcodes and images, lightning—fast data recognition and processing with optimized optical visualization which provides ultra-fast scanning of printed and electronic 1D and 2D barcodes. PRZM technology in Zebra scanners optic, best scanning performance, wide capture area and fast recognitions decoding broken and dirty barcodes.
Scanning	**Scanner Engines Configurations Available:** Zebra: SE4107, SE4750MR, SE4750SR, SE55; Newland EM3596, N1.
Long Range Scanner	An example of the scanning capabilities of the Zebra SE55 Long Range scanner. Decode Ranges: 20 ~ 100 mil , Distance 276.9 ~ 1407.2 cm Long Range Barcodes Scanning up to 15 meters
Supported 1D Symbologies	Code 39, Code 128, Code 93, Codebar/NW7, Code 11, MSI, UPC/EAN, Interleaved 2 of 5, Korean 3 of 5, GSI DataBar, Base 32 (Italian Pharma)
Supported 2D Symbologies	PDF417, Micro PDF417, Composite Codes, TLC-39, Aztec, DataMatrix, MaxiCode, QR Code, Micro QR,Chinese Sensible (Han Xin), Postal Codes
NFC	Tag, ISO/IEC 15693
NFC Feature	**NFC OneTouch Easy Pair.** The technology allows you to connect with lightning speed the MS300R ring scanner to the MEFERI ME10 Wearable Computer with One Tap.

Wireless PAN (WPAN)

Bluetooth	BT 5.0 BR/EDR + BLE; supports three modes: HID, SPP, BLE, GATT, enhancing connectivity options for scanning control and data transfer.

Environmental Compliance

The RoHS Directive 2011/65/EU, along with its amendment 2015/863, ensures that electrical and electronic products are free from hazardous substances. Compliance with the EN IEC 63000:2018 standard guarantees that products are safe for use and minimizes the environmental impact.

Additional Regulatory

US:	
Electrical Safety	UL 60950-1
LED Safety	IEC 62471 (This is an international standard but may be referenced in the US)
Radio Frequency Devices	47 CFR Part 15, Subpart B, Class B
Digital Apparatus	ICES-003 Issue 6, Class B
Europe:	
Electrical Safety	EN 60950-1 2ed+A11+A1+A12+A2:2013, IEC 60950-1 2ed+A1+A2
Environmental	RoHS EN 50581
IT Emissions	EN 55032 (Class B)
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

Standard Accessories

Standard Battery; Scan Trigger Button; Finger Strap Velcro; USB Type-C Cable; Power Adapter.

Optional Accessories

Extended Battery (1250mAh); Wearable Gloves with Scan Button (for left-handed); Wearable Gloves with Scan Button (for right-handed); Wearable Gloves with Scan Button Gen2 (for right-handed); 4-Slot Battery Charger; 10-Slot Battery Charger; 20-Slot Battery Charger; Thumb Scan Trigger Button; Wrist Strap; Retractable Neck Lanyard Strap; Retractable Belt Tether; Bluetooth Dongle; USB to RS-232 Interface Cable.

General Certifications

UN38.3 CE FC RoHS IEC MSDS EMC Technologies SRRC CCC

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MEFERI Software Suite

OmniSoftware Suite is a powerful suite of utilities and system tools designed to extend the functionality of MEFERI devices for both end users and integration partners. It includes advanced solutions for device configuration, OS customization, application management, and workflow optimization across enterprise environments.

MeOmniSoft

The suite features tools such as rapid device provisioning and configuration transfer, enterprise browser and kiosk solutions, OEM Config support, application control and lifecycle management, security patch and system update management, remote desktop (RDP) client, scanner configuration tools, OS diagnostics and modification utilities, and more.

These tools enable faster deployment, simplified device management, deeper device diagnostics, and flexible solution development across diverse industry use cases.

Learn more about OmniSoftware Suite tools

OmniIndustry App Suite is a comprehensive portfolio of industry-specific applications designed to maximize the value of MEFERI devices across real-world business scenarios. This suite includes solutions for business process automation, inventory and price management, stock control, self-scanning in retail environments, data capture, identification, payment processing, device management, secure data transmission, and more.

MeOmniApps

Developed in collaboration with global ISV and SI partners, OmniIndustry App Suite enables businesses to accelerate deployment, reduce development time, and improve operational efficiency. The portfolio is continuously expanding with proven, integrated, and market-ready applications designed for Retail, Warehouse and Distribution, Transport and Logistics, Manufacturing, Services and Field Operations, Government and Public Sector, and Healthcare.

Learn more about OmniIndustry Suite solutions

ScanWizard: Customize your MS300R scanner experience. Configure various scan heads, adjust scanning parameters, and effortlessly modify scan settings to optimize performance.

Additional information:

- For a comprehensive list of symbologies, please consult the Product Reference Guide.
- The printing resolution, contrast, and ambient light conditions will influence the performance.

Warranty

The MS300R is covered by a 12-month hardware warranty from the date of shipment, ensuring protection during the warranty period and supporting stable device operation. Warranty service includes diagnostics and repair in accordance with defined terms and conditions, helping reduce downtime and maintain continuous business performance.

Learn more about warranty terms and conditions

MEFERI MeCare

Premium service program offering extended protection beyond the standard warranty, including comprehensive coverage for repairs, accidental damage, and additional service options tailored to project requirements. Flexible service plans help ensure long-term device reliability, reduce operational risks, and support continuous business operations.

Learn more about MeCare service plans

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