

JRE443 UHF RFID Desktop Reader & Writer

Powered by Zebra Advanced RFID Technology, Unlock New Use Case with No Learning Curve

The JRE443 is a compact, integrated UHF RFID reader combining antenna and reader in a single unit, designed based on the Zebra RE40 RFID module for specific application scenarios. It seamlessly extends Zebra-based RFID deployments into new edge applications — without adding complexity or risk, supported by Zebra's 123RFID Desktop utility and standard APIs and SDK workflows, which enables easy configuration and management.

It delivers Plug-and-Play USB integration, which not only reduce time from concept to deployment for the applications like POS / host system, but also unlock new opportunities with a complete, end-to-end solution architecture, aligned with Zebra's " unified ecosystem" for applications of POS RFID (checkout / returns), Smart lockers / kiosks, Medical cabinets / carts, Tool tracking desks, Authentication / encoding stations.

Close More Deals. Deploy Faster. Expand Use Cases.



Optimize Your Workflow

Rugged Ergonomic Design

The JRE443 UHF RFID integrated device is designed for daily use in demanding environments, including manufacturing, transportation, logistics, and retail. This ultra-rugged unit is dustproof, splash-resistant, and waterproof. Its ergonomic design reduces operator fatigue, enhances comfort, and improves productivity.

Easy UHF RFID Reading Solution

The JRE443 features high sensitivity, excellent channel isolation and stable inventory performance, automatically identifies item and location data, transmitting it to systems in real time. This improves efficiency, reduces operator's workload, and ensures smooth operations. Your investment supports both current and future data collection needs.

High Budget-Friendly Solution

Using the RE40 RFID reader chip, the JRE443 provides high performance, accurate filtering of stray tags, fast and precise checkout and inventory operations. It minimizes interference from adjacent lanes or nearby displays during point-of-sale operations.

Zebra RE40 RFID Chip Module

Powered by Zebra's highly integrated OEM UHF RFID module—RE40, a compact RFID chip module delivers industry-leading performance even in harsh environments: 27 dBm output power / -78 dBm sensitivity.

Zebra 123RFID Desktop Utility

A free Windows-based GUI tool that simplifies deployment, allows easy setup without expert knowledge, guided configuration using intuitive interface and Built-in help and tutorial videos

UHF RFID Enhanced Data Security

Reliable RFID Performance

Achieve consistent read/write performance with excellent RF sensitivity. enables echo cancellation and noise reduction, combined with powerful software, support diverse applications. Dense Reader Mode (DRM) supported, up to 250 tags per second read rate, Global frequency support: 865– 928 MHz, and optimized RF design and signal algorithms for complex environments

Compact Integrated Design

The JRE443 integrates antenna and reader into a compact unit, suitable for small POS counters to large retail deployments, can be used as a pad-style reader on workstations and optional mounting plate enables flush installation

Simple Deployment & Integration

The JRE443 integrates easily into POS systems and retail checkpoints via USB connection. Zebra provides tools, APIs, and SDKs with User-friendly menus and Built-in tutorials, which allowing fast deployment and configuration.

Embedded Zebra RFID Module, Deploy Easier and Faster, Aligned Zebra Unified Ecosystem

For more information, please visit: <https://www.jnxfid.com>

Technical Specification

General Spec

Dimensions	430mm x 320mm x 24.5mm
Weight	2.3kg
Antenna	Circular polarized (optional near-field antenna), gain > 6 dBi
Form-factor	Acrylic panel, metal bottom shell
Indicator	PWR: RED LED, Power LED light DATA: GREEN LED, RFID Activity LED light
Interface Protocol	EPC Global UHF Class 1 Gen2/ ISO 18000-63
TX Output Power	Single port: Global: -10 dBm to +27 dBm (adjustable) Japan: -10 dBm to +24 dBm
Sensitivity	(Adjustable) – 78dBm
Frequency	865–928 MHz (global)
Power Supply	12V to 24V, 4A
RE440 Power	Active Mode: < 8 W, Standby Mode: 0.49 W Sleep Mode: 0.015 W, Power-off Mode: 0.000001 W
RE40 Module I/O	4 GPIO, 2 GPO Optional UART host interface
Reader interface	USB Type-C

Environmental Conditions

Operating Temperature	-4°F/-140°F/-20°C-60°C
Storage Temperature	-40°F- 185°F/-40°C-85°C
Humidity	Operating: 95% RH (non-condensing at 55°C) Storage: 85% RH (non-condensing at 70°C)
Shock Resistance	2000 G ± 5% across X, Y, Z axes (0.85ms± 0.05 duration)
ESD Protection	Pins: ±2kV (HBM), Receiver pins: ±1kV

Software Interface

SDK Support C#	C# (.NET Framework 4.6.1) - Windows 64-bit
Binary com protocol	cross-platform (custom development required)

Software Interface

123RFID Desktop	GUI-based (Windows 10 64-bit)
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Development Kit (optional)

<p>Use the Development Kit Radio Engine (DKRE) for rapid testing and software development, which includes:</p> <ul style="list-style-type: none"> Development PCB (2 RF ports, serial interface, USB, power interface) Antenna Power supply Cables - RF cable, USB cable, power cable Sample tags - Quick Start Guide and USB drive with documentation RF module

Regulatory Compliance

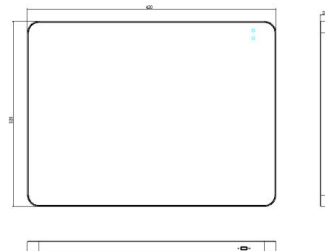
<ul style="list-style-type: none"> FCC (Canada) and ETSI module compliance Environmental Standard: EN 50581:2012 Electrical Safety Standards: IEC 62368-1 (ed.2) E EN 62368-1:2014/AC:2015 EMI/RFI Standards: EN 55032:2012/AC:2013 (Class B) EN 55032:2015/AC:2016 (Class B) EN 55024:2010 EN 55024:2010/A1:2015 EN 55035:2017 47 CFR Part 15, Subpart B (Class B) RoHS Compliant
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Warranty

Covered by Zebra hardware warranty: 12 months from shipment

Note

*Unless otherwise specified, all product claims are based on Zebra's internal testing. Individual product performance may vary; actual results may differ.
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Applications

Healthcare

- Medical Equipment
- Medical carts
- Medical cabinets

Manufacturing

- Tool crib / tool warehouse
- Robotics
- Industrial automation
- Process control
- Product verification and authentication

Retail

- Point-of-sale (POS) terminals
- Smart lockers
- Self-service kiosks
- Asset tracking

Transportation & Logistics

- Inventory management
- Robotics

Public Services

- Access control
- Ticketing systems

