JRE232 Compact UHF RFID Reader & Writer for Automation

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

The JRE232 is a compact industrial-grade UHF RFID reader built on Zebra's proven RE40 RFID engine, delivering enterprise-class RFID performance in a highly integrated all-in-one design. Featuring a built-in antenna, global UHF frequency support, industrial communication interfaces, and PLC-friendly protocols (Modbus RTU, Modbus TCP, RS232), and Zebra 123RFID desktop utility, the JRE232 enables rapid deployment of RFID identification and tracking applications across retail, manufacturing, logistics, healthcare, and self-service environments.

Designed for system integrators and automation solution providers, the JRE232 simplifies RFID adoption by combining reader, antenna, and communication interfaces into a single rugged device that can be easily integrated into existing industrial control systems and data collection infrastructures

Compact RFID Edge Reader for Automation & Smart Devices

Built for Industrial Reliability

Industrial-Grade Construction Design
The JR232 UHF RFID reader is built for demanding environments, rugged industrial construction ensures reliable performance in manufacturing, logistics, retail, and unattended applications, minimizing downtime and maintenance requirements.

Easy UHF RFID Reading Solution
The JRE232 integrated reader and antenna architecture eliminates RF complexity, enabling fast deployment and dependable tag reading with minimal setup effort..

Fast Integration and Faster ROI
Using the RE40 RFID reader chip, the JRE232 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 JRE232 all-in-one design combines reader and antenna in a compact enclosure, making it easy to embed into kiosks, smart lockers, workstations, and automation equipment.

Simple Deployment without Complexity
The JRE232 supports Power over Ethernet, industrial communication protocols and standard interfaces for quick integration with PLCs, automation platforms, and enterprise applications..

Technical Specification

General Spec

Dimensions	95mm x 95mm x 42mm
Weight	0.5kg
Antenna	Circular polarized (optional near-field antenna), gain > 2 dBi
Form-factor	Aluminum Alloy + ABS housing
Indicator	PWR: RED LED, Power LED light DATA: GREEN LED, RFID Activity: YELLOW LED
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: < 15 W, Standby Mode: 0.49 W Sleep Mode: 0.015 W, Power-off Mode: 0.000001 W
RE40 Module I/O	4 GPI/O, 2 GPO Optional UART host interface
Reader interface	RS232

Environmental Conditions

Operating Temperature	-4°F-140°F/-20℃-60℃
Storage Temperature	-40°F- 185°F/-40℃-85℃
Humidity	Operating: 95% RH (non-condensing at 55℃) Storage: 85% RH (non-condensing at 70℃)
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)

Development Kit (optional)

Use the Development Kit Radio Engine (DKRE) for rapid testing and software development, which includes:

- 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

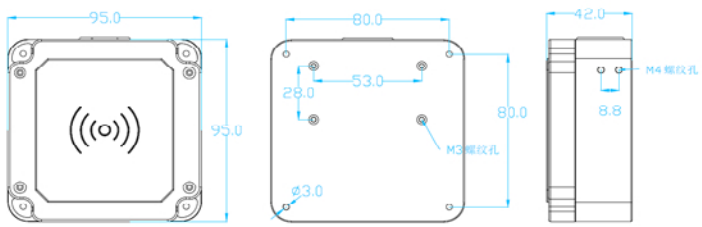
- FCC (Canada) and ETSI module compliance
- Environmental Standard:
  EN 50581:2012
- Electrical Safety Standards:
  IEC 62368-1 (ed.2) E
  EN 62368-1:2014/AC:2015
- EMI/RFI Standards:
  EN 55032:2012/AC:2013 (Class B)
  EN 55032:2015/AC:2016 (Class B)
  EN 55024:2010
  EN 55024:2010/A1:2015
  EN 55035:2017
- 47 CFR Part 15, Subpart B (Class B)
- RoHS Complian

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.



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

Embedded Zebra RFID Module, Deploy Easier and Faster, Aligned Zebra Unified Ecosystem
For more information, please visit: **https://www.jnxrfid.com**