



RS804

4-port RFID UHF IoT Reader



The Unitech RS804 is a powerful UHF/RFID fixed reader/writer with 4 antenna ports, versatile host options and connectivity options. Having a fully featured software development kit (SDK), the RS804 also comes with an open Application Programming Interface (API) that can be used by the users to integrate the device to do accurate data transmission from client to host in a total RFID solution.

The RS804 is ready to deliver the fast, accurate and dense read capability for today's business requirement. This device is equipped with most advanced RFID radio technology and an Impinj R2000 chip. It boosts the superior performance and the read rates is up to 750 read tags/sec. Supporting a global frequency range of 865MHz - 928MHz, this device is capable of reading and writing all tags that conform to EPC global Class1 Gen2, ISO/IEC 18000-6C standards.

The RS804 RFID reader/writer is rugged enough to meet challenging environments with its IP52 industrial water resistance and dustproof rating. With its compact form factor and Power over Ethernet (PoE) design, users can easily deploy the RS804 where it is needed without installing extra outlets – ideal for large open environments. RS804 offers various interfaces that make it simple to be deployed in wide applications such as warehousing, library management, logistics, kiosk services and production equipment tracking.

Application Examples

- Warehousing and logistics
 - Shipment tracking system
 - Inventory management
- Manufacturing
 - Production equipment tracking
 - Operator identifying
- Retail
 - Self-checkout application
 - Kiosk Services
 - Smart shelf
- Library management

Technical Summary

- Operating System : Linux
- Memory: 4GB Flash, 512MB RAM
- EPC Class 1 Gen 2 V2, ISO 18000-6C
- Reads up to 750 tags/s
- Transmit power: From +0dBm to +30dBm
- Frequency Range: EU: 865-868 MHz US: 902-928 MHz

Communication Interfaces

- GPIO with terminal block: 4 inputs / 4 outputs
- Other interfaces:
 - 1 x RS-232, 1 x RJ45, 1 x DC Jack, 2 x USB Type A, 1 x USB Type B

Features

- 4 antenna port configurations (RP-TNC connector)
- Supports EPC global UHF Class 1 Gen 2 / ISO 18000-6C
- For both EU: 865-868 MHz / US: 902-928 MHz
- +30dBm max transmit power and fast tag reading rate
- Supports Wi-Fi dongle, increases installation flexibility
- Leading read rates up to 750 tags per second
- Compact Form Factor : 225 x 140 x 29 mm
- Enterprise durability: IP52 sealing for ingress protection

RS804

Specifications



Operation System

OS	Linux kernel 4.4.14
Memory	Flash 4GB
	RAM 512MB
Languages support	English

Indicator

Type	Power LED *1
	Reader Status LED *1
	Wi-Fi LED *1
	APP LED *1
	Antenna LED *4

RFID

UHF	EPC Class 1 Gen2
	EU: 865-868 MHz
	US: 902-928 MHz

RFID Performance

RFID Module	RM300 4-Port version (Chip: Impinj R2000)
Tag Read Rate	750 tags/sec
Antenna Ports	4 ports with RP-TNC connectors
RF Power output	0dBm to 30dBm, ± 1.0 dBm (Default 30dBm)

Communication

WLAN	Wi-Fi Dongle
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Accessories

Accessories	Antenna (US/EU)
	3 meters RF cable
	10 meters RF cable

I/O Interfaces

USB	USB Type A *2, USB Type B *1
Serial Interface	RS232 (DB9)
Digital IO Interface	4 inputs & 4 outputs
Ethernet Interface	RJ45

Enclosure

Dimension	225 * 140 * 29mm
Weight	597g
Housing Material	Metal

Durability

Sealing	IP52
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Environmental

Operating temperature	-20 ~ 60°C
Storage temperature	-40 ~ 85°C
Relative Humidity	5-95% non-condensing
Electrostatic Discharge	+/-12kV air discharge +/-8kV contact discharge"

Power Source

Power	DC Jack-in
	Center pin 2.5mm, diameter 5.5mm (24V/2.7A)

What comes in the box

The standard package contents	RS804
	Adapter
	ALN-9654 RFID Tag



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