

UHF | RAIN - Desktop Reader Chainway - R3S

- RAIN RFID (UHF EPC Class1 Gen2, ISO 18000-63) compliant
- Up to 30 dBm (1 W) output power
- Integrated Antenna
- USB Type-C interface (VCP)
- BLUETOOTH LE
- Compact all-in-one design



UHF | RAIN - Desktop Reader RFID - Compact POS Reader

The Chainway R3S is a compact desktop UHF RFID reader designed for close-range RFID data capture in space-constrained environments. Featuring an integrated UHF module and near-field antenna, the R3S enables precise and reliable reading while minimizing stray reads and misreads.

Powered by an Impinj E-Series chipset with Gen2X support, the R3S delivers high sensitivity and strong anti-collision performance, allowing efficient batch reading even in dense tag environments. Adjustable RF power levels, multiple interface options and plug-and-play operation make the R3S easy to deploy across desktop, counter and kiosk applications.

With support for USB, Ethernet (PoE+) and Bluetooth, and compatibility with Windows, Android and iOS platforms, the R3S provides flexible integration for modern RFID-enabled systems.

Common Applications

- Gate / Portal Applications
- Multi Read Point Applications
- Scan Tunnel Applications
- Access Management
- Overhead Read Points

CHAINWAY
Powering Intelligence at the Source



TECHNICAL SPECIFICATIONS

Physical Characteristics

Dimensions	255mm × 235mm × 18mm 10.04in × 9.25in × 0.71in
Weight	650g / 22.93oz.
Port	USB Type-C
Power Supply Protocol	USB 2.0
LED Indicator	1 × Power indicator (ring around the inventory button) 1 × Bluetooth indicator 1 × Operation indicator Ethernet indicators: 1 × green LED + 1 × yellow LED (optional)

UHF

Engine	Based on Impinj E Series chip
Frequency	865-868MHz / 920-925MHz / 902-928MHz (custom-design for frequency band)
Impinj Gen2X	Supported
Protocol	EPC global Class 1 Gen 2 / ISO 18000-63 RFID
Antenna	Near-Field Antenna
Output Power	1-30, step 1dB
Fastest Read Rate	250+ tags/sec
Multi-tag Inventory	Supports reading 70+ RFID tags at once (5 seconds)
Max Read Range	>100cm (tag: Impinj M750 tag)

User Environment

Operating Temp.	-20°C to 50°C
Storage Temp.	-40°C to 70°C
Humidity	5% RH - 95% RH non condensing
Sealing	IP54
Vibration	YD/T 1539-2019
ESD	±15kV air discharge, ±8kV contact discharge

Communication

Ethernet interface	10 / 100 Base-T Ethernet / PoE+ support
Bluetooth	BLE 5.0
USB Type C	USB 2.0 with a transmission rate of 12Mbit/s

Developing Environment

SDK	Supports Android, iOS, and Windows systems
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