

Speedway RAIN RFID Readers

Impinj Speedway readers are enterprise-class fixed readers with the performance, quality, and reliability necessary for maximum endpoint visibility



Enables Custom Solutions to Everyday Problems

With the largest installed base of fixed readers across a diverse range of applications, Speedway readers deliver market-leading performance, quality, flexibility and reliability for companies who use RAIN RFID to increase sales, reduce costs, and improve efficiency.



Speedway Benefits

Versatile and Customizable

Provides low-cost opportunity to create a large, contiguous read zone with many antennas connected to a single reader

Maximum Performance 24/7

Maintain high read rates regardless of RF noise or interference leveraging patented AutoPilot capability that automatically optimizes performance




Powerful Application Development Tools

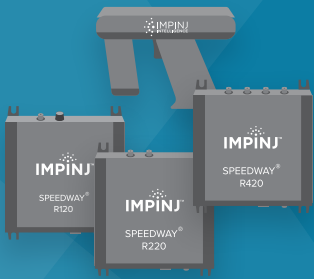
Suite of hardware and software tools enable custom solution development

Key Features

- **Senses and Adapts to Environment**
Impinj AutoPilot technology automatically optimizes the reader's operation for its environment
- **Flexible, Design-Specific Solutions**
Handles high traffic volumes, RF-challenging environments and a wide variety of RAIN RFID-tagged products
- **Platform Ready**
Leverage Impinj ItemSense software for large-scale data aggregation and device management

Use Cases

-  **Inventory Management**
Ensure supplies are always in stock, get accurate information about the availability and consumption of materials, and manage inventory with lower cost through efficient utilization and expiration management
-  **Asset Tracking**
Easily track returnable, reusable assets for reduced errors and increased efficiency
-  **Authentication**
Track and authenticate items through the supply chain



Reader Family Overview

Impinj readers deliver item visibility with the performance, quality, and reliability necessary for robust solutions. Impinj Speedway readers have accessories that support custom solution development. Our handheld readers provide high performance coupled with full-featured mobile computing and intuitive operation.

| Product Details | Speedway R420 | Speedway R220 | Speedway R120 |
|--|---|---|--|
| Use Cases | Optimized for 4 read zone use cases Expandable to 32 read zones with Impinj Antenna Hubs Up to 1,100 tag reads per second | Optimized for 2 read zone use cases Up to 200 tag reads per second | Optimized for 1 read zone use cases Expandable to 8 read zones with optional Impinj Port Pack Up to 200 tag reads per second |
| Antenna Ports | 4 | 2 | 1 (enabled) |
| Read Zones (maximum) | 32 with Antenna Hubs | 2 | 8 with Port Pack |
| Transmit Power (maximum without Antenna Hub) | FCC: 32.5 dBm AC/ 31.5 dBm PoE ETSI: 31.5 dBm AC/ 30.0 dBm PoE | FCC: 32.5 dBm AC/ 31.5 dBm PoE ETSI: 31.5 dBm AC/ 30.0 dBm PoE | FCC: 30.0 dBm AC and PoE ETSI: 30.0 dBm AC and PoE |
| Air Interface Protocol | GS1/EPCglobal UHF Gen2 (ISO 18000-63) or RAIN RFID | | |
| Receive Sensitivity (maximum) | - 84dBm | | |
| Return Loss (minimum) | 10dB | | |
| Reliability | Enterprise Grade | | |
| Network Connectivity | 10/100BASE-T Ethernet | | |
| GPIO Support | Yes | | |
| USB Ports | 1 device (Type B), 1 host (Type A) | | |
| Management Console Port | RS-232 using a standard Cisco-style management cable (DB-9 to RJ-45) | | |
| Power Sources | 802.3af PoE or AC-DC power supply rated for 24Vdc/2.1A | | |
| Environmental Sealing | IEC IP52 | | |
| Shock and Vibration | MIL-STD-810G | | |
| Operating Temperature | -4°F to 122°F (-20°C to 50°C) | | |
| Humidity | 5% to 95% non-condensing | | |
| Dimensions (H x W x D) | 7.5 x 6.9 x 1.2 in (19 x 17.5 x 3 cm) | | |
| Weight | 1.5 lb (.7 kg) | | |
| RF Certifications | www.impinj.com/supported_regions | | |
| RoHS Compliant | Yes | | |
| Speedway SDK, ETK and LTK library support | Yes | | |
| Warranty and Maintenance Options | 1 year limited warranty with purchase, option to extend 3 year Enhanced Maintenance upgrade available | | |