

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
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	Yes		
RoHS Compliant			
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		

Ready to discuss how Impinj can help your business?

[Contact Us](#)
SmartCard America
 Toll Free 1-800-537-1708
 email: info@smartcardamerica.com
 web: www.SmartCardAmerica.com

Impinj (NASDAQ: PI) wirelessly connects billions of everyday items such as apparel, medical supplies, and automobile parts to consumer and business applications such as inventory management, patient safety, and asset tracking. The Impinj platform uses RAIN RFID to deliver timely information about these items to the digital world, thereby enabling the Internet of Things.

