



Speedway® Revolution

Superior Performance Made Easy

Technology leader Impinj envisioned the RFID system of tomorrow—and it has a mind of its own. The Speedway Revolution reader automatically delivers peak performance—all day, every day.

Product details	AIIS	Speedway R420	
Air Interface Protocol	EPCglobal UHF Class 1 Gen 2 / ISO 18000-6C		
Performance	Includes all possible performance configurations and functionality to deliver peak performance for even the most challenging of applications		
Supported Regions or Geographies	• US, Canada, and other regions following US FCC Part 15 regulations • Europe and other regions following ETSI EN 302 208 v1.2.1 without LBT regulations For complete region list visit: http://www.impinj.com/Speedway_Revolution_Reader.aspx		
Antennas	4 high performance, monostatic antenna ports optimized for Impinj reader antennas (RP TNC)		
Transmit Power	• +10.0 to +30.0 dBm (PoE) • +10.0 to +32.5 dBm (external universal power supply)		
Max Receive Sensitivity	-82 dBm		
Min Return Loss	10 dB		
Application Interface	EPCglobal Low Level Reader Protocol (LLRP) v1.0.1, Speedway Revolution SDK & EDK		
Network Connectivity	10/100BASE-T auto-negotiate (full/half) with auto-sensing MDI/MDX for auto-crossover (RJ-45)		
Cellular Connectivity*	• Sierra Wireless AirLink PinPoint XT (CDMA or GSM connectivity with GPS data) • Sierra Wireless AirLink Raven XT (CDMA or GSM connectivity) (* Available through Impinj-authorized partners)		
IP Address Configuration	DHCP, Static, or Link Local Addressing (LLA) with Multicast DNS (mDNS)		
Time Synchronization	Network Time Protocol (NTP)		
Management Interfaces	• Impinj Web Management UI • Impinj RShell Management Console using serial management console port, telnet or SSH • SNMPv2 MIBII • EPCglobal Reader Management v1.0.1 • Syslog		
Reliable Firmware Upgrade	• Dual image partitions enable smooth transition to new firmware while the reader is still operating • Scalable upgrade mechanism enables simultaneous scheduled upgrades of multiple readers • USB Flash Drive • Impinj Web Management UI		
Management Console	• RS-232 using a standard Cisco-style management cable (DB-9 to RJ-45) • Baud rate: 115200, Data: 8 bit, Parity: none, Stop: 1 bit, Flow control: none		
USB	• USB 1.1 Device (Type B) and Host (Type A) ports • USB Virtual COM Serial Port and USB drive support for embedded applications		
GPIO	• 4 inputs, optically isolated 3-30V; 4 outputs, optically isolated, 0-30V, non-isolated 5V, 100mA supply (DB-15)		
Power Sources	• Power over Ethernet (PoE) IEEE 802.3af • +24 VDC @ 800mA via external universal power supply with locking connector—sold separately		
Power Consumption		IdleTypical	LDC
	PoE at +30 dBm	3W1.5W	6W
	Power Supply at +30 dBm	3W3.5W	6W
	Power Supply at +32.5* dBm	3W5W	6W
	(*maximum is 31.5 dBm for ETSI region readers)		
Environmental Sealing	IEC IP52		
Shock and Vibration	Mil-Std-810G Certified		
Operating Temperature	-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 lbs (24.5 oz)		
RoHS	Compliant to European Union directive 2002/95/EC		