



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 | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • +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* | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • USB 1.1 Device (Type B) and Host (Type A) ports • USB Virtual COM Serial Port and USB drive support for embedded applications | | |
| GPIO | <ul style="list-style-type: none"> • 4 inputs, optically isolated 3-30V; 4 outputs, optically isolated, 0-30V, non-isolated 5V, 100mA supply (DB-15) | | |
| Power Sources | <ul style="list-style-type: none"> • 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 | | |