



## R420 Speedway Revolution, RFID reader UHF Gen2, 4 ports

The Speedway Revolution UHF RFID reader delivers the performance, quality, and reliability necessary for maximum visibility of tagged inventory and assets. Impinj's innovative Speedway® Revolution RFID reader with Autopilot automatically optimizes its operation to the environment—delivering peak performance at all times.

With the Speedway Revolution's Autopilot, innovative firmware features work together, automatically optimizing the reader operation to its environment—delivering peak performance at all times.



- **Autoset** continuously optimizes the reader's configuration for the best, most reliable performance. The Speedway Revolution senses levels of RF noise and interference, automatically selecting the appropriate settings.
- **Low duty cycle** reduces RF interference, power consumption, and energy costs. The Speedway Revolution only transmits when tags are in the field, helping to clear the air of unnecessary RF noise.
- **Dynamic antenna switching** improves throughput and helps the reader work more efficiently. Speedway Revolution senses where tags are in the field and automatically focuses more time on the antennas with the largest tag populations in view.

### Key features:

- Autopilot (automatically senses environment and configures settings for best performance)
- 1, 2 and 4 antenna port configurations
- Power over Ethernet (PoE) and cellular modem connectivity
- Industry standard application interface with support for EPCglobal Low Level Reader Protocol (LLRP)
- Quality design resulting in industry's highest reliability
- Global partner and support network



# Technical Description

## Functionality & Operation

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| Frequency                  | UHF: 865 - 868 MHz (EU)                                                |
| Antennas, Antenna inputs   | 4 mono-static ports                                                    |
| Communication interface    | USB Ports: 1 device (Type B), 1 host (Type A), 10/100BASE-T Ethernet   |
| Maximal transmit power     | 30dBm                                                                  |
| Network services           | DHCP , Static or Link Local Addressing (LLA) with Multicast DNS (mDNS) |
| RFID transponder protocols | ISO 18000-63 GS1/EPCglobal UHF Gen2                                    |

## Electrical

|              |                 |
|--------------|-----------------|
| Power Source | +24 VDC @ 800mA |
|--------------|-----------------|

## Mechanical

|            |                                          |
|------------|------------------------------------------|
| Dimensions | Width: 190mm, Height: 30mm Length: 175mm |
| Weight     | 771g                                     |

## Environment

|                                    |              |
|------------------------------------|--------------|
| Relative humidity (non-condensing) | 5 to 95%     |
| Operating temperature              | -20 to 50°C  |
| Ingress protection                 | IP52         |
| Vibrations resistance              | MIL-STD-810G |

## Others

|                      |                                                                                                               |
|----------------------|---------------------------------------------------------------------------------------------------------------|
| Development tools    | Speedway SDK, ETK and LTK library support                                                                     |
| Application software | Impinj Web Management UI, Impijn RShell Management Console, SNMPv2 MIBII, EPCglobal Reader Management, Syslog |

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