



# Introducing Speedway® Reader Antenna Hub



Impinj's Speedway® Antenna Hub provides a low cost opportunity to create a large, contiguous RFID read zone with many antennas connected to a single reader. The Speedway Antenna Hub supports up to 32 antennas connected to a single Speedway® Revolution R420 reader for a robust solution to today's popular item monitoring and other antenna-intensive RFID applications which deliver enhanced business intelligence and customer experience.

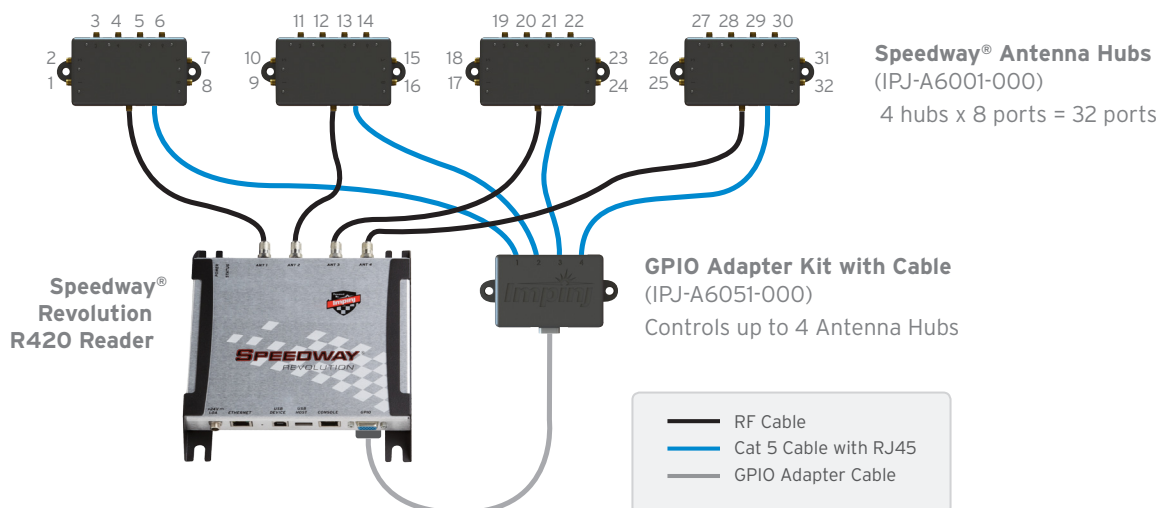
Users will benefit from fast, hassle-free installation and deployment with the Speedway Antenna Hub solution which includes antenna virtualization software, GPIO adapter, and an enclosure with LEDs for system feedback.

## The Speedway Antenna Hub delivers:

- > Hassle-free operation of 5-32 antennas when connected to a single high-performance Speedway Revolution reader and GPIO Adapter
- > Robust and easy to install design with system level feedback for reliable installations in real world conditions
  - Enclosed electronics board with mounting tabs
  - LEDs for system level feedback
  - Software alerts/health diagnostics
- > All of the performance benefits of the Speedway Revolution reader without the need to learn a new API or make extensive programming changes

With the Speedway Antenna Hub, Impinj makes RFID monitoring applications, including smart shelves, interactive marketing displays, and document or item tracking, cost-effective and easy to deploy.

## Antenna Port Numbering:



## Product Specifications

### Speedway® Antenna Hub (IPJ-A6001-000)

<b>Dimensions</b>	4 x 2.4 x 1 in (102 x 61 x 24 mm)
<b>Weight</b>	3.5 oz (100 g)
<b>Power Supply</b>	5V provided by the GPIO Adapter
<b>Power Consumption</b>	25mA (80mW) max
<b>Connectors</b>	RF Input: SMA Female 8 RF Outputs: SMA Female 1 Digital I/O: RJ45
<b>Mounting Options</b>	Two 1/4 in mounting holes
<b>Max Input Power</b>	34 dBm
<b>Insertion Loss</b>	1.3 dB (Max)
<b>Isolation</b>	36 dB (Min)
<b>Return Loss</b>	24 dBm (Min)
<b>Antenna Hub Switching Speed</b>	<200 $\mu$ s based on hardware design
<b>Device Switching Speed</b>	~25 ms based on Speedway Revolution firmware
<b>Operating Temperature</b>	-40 °C to +80 °C
<b>Storage Temperature</b>	25 °C
<b>Humidity</b>	5% to 95%, non-condensing
<b>IP Rating</b>	IP52
<b>Frequency</b>	860-960 MHz
<b>Certifications</b>	FCC, CE, RoHS
<b>Cables</b>	RF cable maximum length: depends on environment/region, typical 1/2 dB per meter signal loss Digital cable (Cat5) for control, maximum length: • 300 ft (100 m) if shielded • 100 ft (30 m) if unshielded
<b>Configuration</b>	Octane Rshell, Speedway Revolution WebUI
<b>Antenna Port Numbering</b>	1-32 on Antenna Hubs 1, 9, 17, 25 on native reader ports
<b>API</b>	LLRP Tool Kit (LTK), Speedway Development Kit (SDK)
<b>Test Software</b>	MultiReader v6.8 or later

### GPIO Adapter (IPJ-A6051-000)

<b>Dimensions</b>	3.5 x 2.4 x 1 in (92 x 61 x 24 mm)
<b>Weight</b>	2.8 oz (80 g)
<b>Power Supply</b>	5V provided by the Speedway Revolution reader
<b>Power Consumption</b>	5mA (20mW) max, nominal voltage is 3.3V I/O with 5V max
<b>Connectors</b>	• 1 GPIO Input: HD-15 • 4 Digital I/O: RJ45
<b>Mounting Options</b>	Two 1/4 in mounting holes
<b>Operating Temperature</b>	-40 °C to +80 °C
<b>Storage Temperature</b>	25 °C
<b>Humidity</b>	5% to 95%, non-condensing
<b>IP Rating</b>	IP52
<b>Certifications</b>	FCC, CE, RoHS
<b>Cables</b>	• HD-15: 1 ft cable for Speedway Revolution GPIO port included • Custom HD-15 can be manufactured up to 100ft (30 m) max

