

Mini-Guardrail RAIN RFID Antenna



Small Solution with Big Results

As part of a custom solution built with an Impinj Speedway reader, Mini-Guardrail antennas are ideal for fixed spaces that need exceptional control in a small zone. The antenna is unobtrusive and optimal for monitoring items within cabinets or other small enclosures.



The Impinj Platform includes Connectivity Devices



Mini-Guardrail Benefits

Embeddable Design

Easily fits into compact spaces requiring a constrained read zone

Close-range Readability

Read challenging items such as liquids, powders, and metallic packaging with the optimized short-range read zone

Multi-region Operation

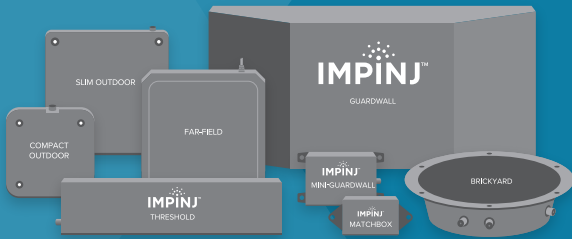
Broadband support for optimal performance globally

Key Features

- **Small Form Factor**
Small 13 x 7 x 2 cm size mounts unobtrusively into enclosures
- **Concentrated Coverage Zone**
Delivers strong performance to identify items at a distance of 0-7.5 cm
- **Broadband Support**
Performs over a wide range of frequencies that can be used in multiple regions

Use Cases

- Conveyor Systems**
Increase efficiency and process automation in manufacturing and industrial management operations
- Industrial Encoding Systems**
Supports high-speed, reel-to-reel encoding systems for large-scale RAIN RFID deployments
- Access Control**
Efficiently control and monitor access throughout a facility with a RAIN RFID badge access system



Antenna Family Overview

The Impinj family of antennas connect to Impinj Speedway readers and support custom solution development for retail, supply chain and logistics, healthcare, and many other industries. The antennas come in an assortment of sizes and enclosures to support proximity, specialized, and distance read zones.

	PROXIMITY ANTENNAS	
Product Details	Mini-Guardrail	Matchbox
Dimensions	13 x 7 x 2 cm	7.3 x 3.3 x 1.1 cm (with 20 cm (8 in) pigtail)
Weight	.25 lbs / .11 kgs	.04 lbs / .02 kgs
Connectors	SMA female (Requires accessory cable to connect to reader's RP-TNC connector)	SMA female (Requires accessory cable to connect to reader's RP-TNC connector)
Mounting options	4 holes for #10 or M5 screws spaced 120.0 (L)mm x 50.0 (W) mm	2 holes 4mm diameter spaced 62mm
IP rating	IP41 indoor use only	IP54 indoor use only
Environment	Operating Temp: 0°C to 40°C (32°F to 104°F) Humidity: 5% to 95% relative, non-condensing	Operating Temp: 0°C to 40°C (32°F to 104°F) Humidity: 5% to 95% relative, non-condensing
Frequency range	860 to 960 MHz broadband for use in all regions	865 to 956 MHz broadband for use in all regions
Polarization	Linear (parallel to short axis)	Linear (parallel to short axis)
Far-field gain	-20 dBi	-20 dBi
VSWR	1.25:1 (center of band)	1.25:1 (center of frequency range)
Impedance	50 ohms	50 ohms