



# THE AVANCIR ADVANTAGE

Welcome to the ready-to-deploy  
RFID software platform.

Inspired by SaaS tools we use  
in our daily professional lives,  
we created an off-the-shelf,  
configurable RFID software  
platform that can handle the  
complexities of today while  
being flexible enough to exceed  
the expectations of tomorrow.

## AVANCIR SIMPLIFIES COMPLEX USE CASES

- Asset Tracking
- Inventory Management
- RTI
- Order/Shipment Verification
- Quality Assurance
- WIP



## WHY IS AVANCIR BETTER THAN OTHER RFID SOFTWARE?

Avancir connects and digitizes all your  
RFID readers, RFID tags, barcodes,  
manual entries, and other data  
sources to make your data meaningful.

## READY TO WORK FROM DAY ONE

As soon as you sign up,  
hit the ground running to:

- Immediately ingest data
- Quickly set parameters
- Start outlining workflows
- Discover process solutions
- Configure and customize

## HOW AVANCIR WORKS

Avancir keeps track of everything that matters as your business grows, then gives your employees meaningful data to help them do the jobs you hired them to do.

### READY TO DEPLOY ON DAY ONE



After a single-day setup, easily pull asset data through an integration or capture existing barcode and RFID data to move your business forward in four weeks or less.

### SEAMLESS SYSTEM INTEGRATION



Our open API and webhook notifications support secure data exchange with other systems via lightweight automations or a managed integration platform.



### EASY CUSTOM CONFIGURATION

Create custom fields, statuses, locations, and dashboards for your use cases with cross-device functionality via desktop, mobile devices and RFID readers.



### OUT-OF-THE-BOX SUPPORT

Start improving asset tracking processes with on-demand documentation within the platform and hands-on support information.

## THE AVANCIR ADVANTAGE

Avancir brings the digital and physical worlds together to track assets and processes that are critical to your business — today and tomorrow.

### A TRUE RFID SOLUTION

Backed by AtlasRFIDStore.com, Avancir works with any UHF RFID tags and devices.

### REGULATORY PEACE OF MIND

From federal agencies to big-box retailers, we've got your RFID requirements covered.

### ADAPTS AS YOU EVOLVE

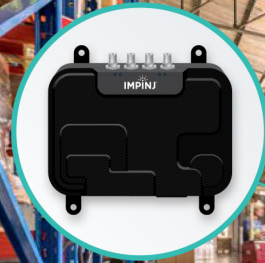
Avancir is compatible with multiple IoT devices and scales to your changing use cases.

## START BUILDING YOUR AVANCIR RFID SOLUTION

Contact us today for a free demo to learn how you can start seeing value from your data in less than 4 weeks with Avancir.

# Impinj R700 RAIN RFID Reader

for Enterprise-grade IoT Solutions



The Impinj R700 reader is designed to support global RAIN deployments that need industry-leading performance, enterprise-grade reliability and security, and support for next-gen RAIN tags.

## Empowers reading tags farther and faster, and speeds time-to-solution

The Impinj R700 reader provides industry-leading performance, enterprise reliability and security, and modern developer tools. IoT developers can easily build and deploy custom enterprise applications with a Linux OS, REST API, and native support for industry-standard data formats and protocols, such as MQTT.

The Impinj R700 delivers increased support for on-reader applications—including 10x the processing power. Plus, when combined with tags based on Impinj M700 series tag chips, the Impinj R700 advances RAIN RFID performance at dock doors, conveyors, and store exits.

The Impinj R700 reader builds on the heritage of the Impinj Speedway reader family, which has been proven reliable for 15 years in the field.



*Impinj R700 RAIN RFID Reader*

## Why use the Impinj R700 reader

Suitable for global RAIN RFID deployments, Impinj R700 readers deliver the performance and ease of use needed by enterprise deployments.

**Deliver industry-leading performance:** leverage industry-leading sensitivity, powerful edge processing, and high-speed network connectivity to enable fast reading of small, global RAIN RFID tags and open up new use cases.

**Simplify RAIN deployments with IoT edge device:** speed time-to-solution with increased on-reader memory, plus the Impinj IoT device interface that empowers IoT developers to easily connect applications to configure and control devices, and to consume RAIN data.

**Meet demands of next-generation RAIN solutions:** future-proof investments in RAIN RFID and next-gen tag chips with performance, reliability, and deployment simplicity for enterprise-grade solutions.

# Connect everything with features that deliver industry-leading performance

## Industry-leading sensitivity

Empowers reading tags farther and faster, and future-proofing of IoT solutions.

## Powerful edge processing

Enables intelligent, on-reader, RAIN tag-processing algorithms.

## Secure, upgradable Linux OS

Delivers enterprise-grade security and reliability, and the flexibility to customize with on-reader applications.

## Simple IoT device interface

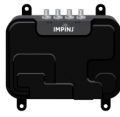


Easily connects IoT applications to configure and control devices, and to consume RAIN data, with native support for MQTT.

## Optimized design for inventory

Increases read rate and improves read zone control at lower transmit power.

## Rich peripheral and accessory support

Provides versatility with support for USB drives, Wi-Fi adapters, and up to 32 antennas via optional antenna hub.

Impinj Fixed Reader Portfolio		 R700	 R420	 R220
SPECIFICATIONS	Air interface protocol	RAIN RFID / ISO 18000-63 and EPCglobal Gen2v2 compliant		
	Antenna ports	4	4	2
	Read zones (max)	32	32	16
	Read rate (max per-second)	1,100	1,100	200
	Transmit power (max, dBm)	33	32.5	32.5
	Receive sensitivity (dBm)	-92	-84	-84
	Processor speed (GHz)	1 (Dual-core)	0.4 (Single core)	0.4 (Single core)
	Random-access memory (MB)	1,024	256	256
	Custom-application partition (CAP) size (MB)	128	32	32
	FEATURES	Impinj IoT device interface	✓	
Support for USB peripherals (slots)		3	1	1
General-purpose input/output (GPIO) connector		Integrated	Accessory	Accessory
Gigabit Ethernet network connectivity		✓		
Power Sources		802.3af PoE/ 802.3at PoE+	All regions: AC-DC adapter All regions except EU2: IEEE 802.3af PoE EU2: IEEE 802.3at PoE+	

Impinj product performance is based on Impinj's modeling and test data, actual results may vary.

For a list of supported regions and geographies please go to: [www.impinj.com/supported\\_regions](http://www.impinj.com/supported_regions).



Impinj (NASDAQ: PI) helps businesses and people analyze, optimize, and innovate by wirelessly connecting billions of everyday things—such as apparel, automobile parts, luggage, and shipments—to the Internet. The Impinj platform uses RAIN RFID to deliver timely data about these everyday things to business and consumer applications, enabling a boundless Internet of Things.



# VUL-262002/TRH/A/K

## UHF RFID ANTENNA

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The Vulcan RFID™ VUL-262006/TRH/A/K (RCHP) Outdoor RFID Antenna measures in at 12x12 inches. This unit operates at **9 dBic gain**, covers **63 x 63 degrees** beamwidth, and is an excellent choice for passive UHF RFID applications in the FCC band of 902-928 Mhz.

The VUL-262006 carries an **IP 67 rating** and is perfect for outdoor installations. It comes with a fixed RP-TNC female connector on the back plate and **4 threaded mounting studs**.

The Vulcan RFID™ VUL-262006/TRH/A/K Outdoor RFID Antenna UHF RFID Antenna's rugged design makes this antenna ideal for RFID applications such as:

- Parking Gates
- Overhead Race Timing
- Distribution Center Yards





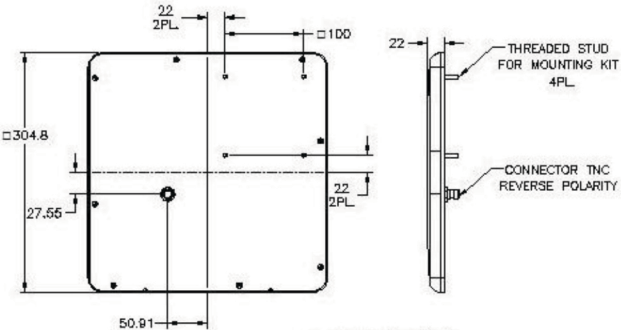
# Specifications

ELECTRICAL	Operating Frequency:	FCC (902-928 MHz)
	Polarization:	Right Hand Circular Polarization
	Gain:	9.0 dBi (min), 9.0 dBil (max)
	Elevation Beamwidth:	63°
	Azimuth Beamwidth:	63°
	Input Impedance:	50 Ω
	VSWR:	1.3:1 (max)
	Front-to-Back Ratio:	-18 dB (max), -20dB (typ)
	Axial Ratio At Boresight:	4dB (max)
	Regulatory Compliance:	RoHS, CE0682
	Sidelobe Level @ 90°:	< -16 dB (max)
	Lightning Proteciton:	DC Grounded
MECHANICAL	Connector Type:	RP-TNC female (connects to RP-TNC male)
	Mounting:	4 Threaded Studs
	Cable:	Not Included
	Radome Material:	Plastic UV Resistant per ETSI 300
	Base Plate Material:	Aluminum with Chemical Conversion Coating
	Dimensions:	305 x 305 x 25 mm (12 x 12 x 0.98 in)
	Weight:	1.2 kg (2.64 lbs)
ENVIRONMENT	Operating Temperature:	-55° to +71°C (-67° to +159.8°F)
	IP Rating:	IP 67
	Temp. Cycling:	IEC 68-2-14, 1h, -45° to +70°C (-49° to +158°F), 3 Cycles
	Thermal Shock Non-Operating:	-30° to +70°C (-22° to 158°F), Ramp 30°C/min (86°/min)
	Humidty:	ETSI EN300-2-4, T4.1E, 144H, 95%
	Solar Radiation:	ASTM G53 1000h
	Ozone Resistance:	ETSI 300
	Flammability:	UL 94
	Salt Spray:	IEC 68-2-1 Ka 500h
	Ice & Snow:	25mm Radial
	Wind Speed Survival:	220 Kh/m, 160 Kh/m
	Wind Load - Front Thrust:	28.6 Km
	Wind Load - Side Thrust:	2.2 Km
	Qusasi Random Vibration:	20g rms For 4 Hours
	Vehicle Vibration Operating:	1g, 10-500 Hz, in 3 axis - 6 hours total, 2 hr in each axis. Accelerated wear - an additional 50hrs in worst case axis.
Mechanical Shock Operating:	10g, 11msec, half sine pulse	

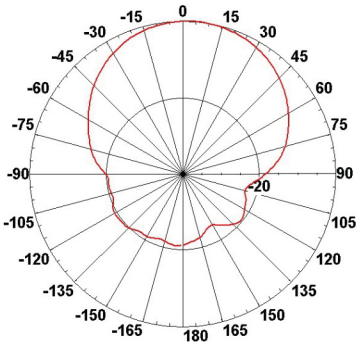


# Diagrams

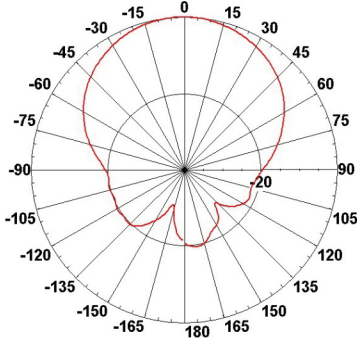
Dimensions (mm)



Azimuth Radiation Pattern



Elevation Radiation Pattern



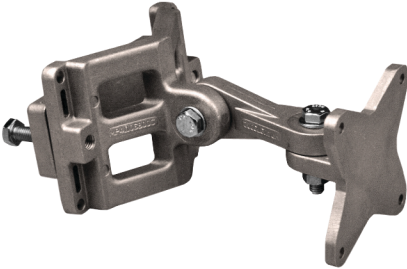
# Accessories & Compatible Products

Vulcan RFID™



VUL-MAPPER

MTI Wireless Edge



MT-120018

Vulcan RFID™



195-RP-TNC-M-RP-TNC-M-12  
240-RP-TNC-M-RP-TNC-M-20  
400-RP-TNC-M-RP-TNC-M-35

\*For custom cable connectors or lengths please [contact us](#).



## About Vulcan RFID™ Products

Vulcan RFID™ offers a broad range of innovative RFID antennas, RFID inlays, custom RFID tags, and accessories suited for a wide variety of industries and applications. With an extensive portfolio, Vulcan RFID™ products are manufactured to withstand environments ranging from mild to extreme. All Vulcan RFID™ products are thoroughly tested and built on a name you can trust. Vulcan RFID™ products enable you to reach and sustain high levels of performance with your UHF or NFC frequency application.



### Vulcan RFID™ Antennas

Vulcan RFID™ offers an extensive collection of UHF RFID antennas designed to maximize the RF performance and coverage area of an RFID system.

[Shop Now](#)



### Vulcan RFID™ Tags & Inlays

Vulcan RFID™ offers a broad range of RFID labels, tags and inlays built to withstand environments ranging from mild to extreme.

[Shop Now](#)



### Vulcan RFID™ Accessories

Vulcan RFID™ provides a variety of high-quality accessories, RF hardware, and cables.

[Shop Now](#)



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**1 (888) 238-1155**

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