

Impinj R700 Series RAIN RFID Readers

for Enterprise-grade IoT Solutions



Designed for RAIN RFID deployments that demand industry-leading performance, Impinj R700 and R720 readers deliver reliability, security, and advanced capabilities that meet the increasing demands of large-scale enterprise solutions.

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

Impinj R700 series readers provide best-in-class tag readability, enterprise 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. Powerful processing and expansive on-reader memory enable embedded applications that transform RAIN data into actionable business intelligence. When combined with tags based on Impinj M800 series tag chips, the Impinj R700 series advances RAIN RFID performance at dock doors, conveyors, and store exits where items are moving or densely packed. Impinj R700 series readers build on the heritage of the Impinj Speedway reader family, which has been proven reliable since its introduction in 2006.



Impinj R700 Series RAIN RFID Reader

Why use Impinj R700 series RAIN RFID readers?

Impinj R700 series readers discover, engage, and protect connected items, packages, and pallets, delivering data accurately and efficiently to enterprise systems. Available in two versions, Impinj R700 and R720 readers:

Ensure accurate and reliable performance: Users can leverage market-leading sensitivity, powerful edge processing, and high-speed network connectivity to enable fast, high-throughput reading of small RAIN RFID tags at long distances.

Simplify IoT solution development: IoT developers can easily connect applications and speed up time-to-solution with the Impinj IoT Device Interface, which enables configuration of reader settings, viewing of tag data, and management of security certificates, reader events, and alarms.

Leverage critical edge intelligence: The Impinj R700 series supports autonomous reading deployments with high-performance processing and expansive application memory that collects and manages enterprise data at the source.

Connect everything with features that deliver industry-leading performance

Industry-leading read sensitivity

Improve readability of connected RAIN RFID tags – especially when items are fast-moving, use small tags, or are located far from an antenna.

Simple IoT device interface

Easily connect to IoT applications that configure and control devices and speed up time-to-solution.

Secure, upgradable Linux OS

Achieve enterprise-grade security and reliability – and the flexibility to customize with on-reader applications.

Powerful edge processing

Transform RAIN data into actionable business intelligence with high-performance processing power and expansive embedded application memory.

Optimized design for inventory

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

Rich peripheral and accessory support

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

| Impinj Fixed Reader Portfolio | |  R720 |  R700 |  R420 |  R220 |
|---|--|---|---|--|---|
| SPECIFICATIONS | Air interface protocol | RAIN RFID / ISO 18000-63 and EPCglobal Gen2v2 compliant | | | |
| | Antenna ports | 4 | 4 | 4 | 2 |
| | Read zones (max) | 32 | 32 | 32 | 16 |
| | Read rate (max per-second) | 1,100 | 1,100 | 1,100 | 200 |
| | Transmit power (max, dBm) | 33 | 33 | 32.5 | 32.5 |
| | Receive sensitivity (dBm) per ISO 18046-2 | -93 | -93 | -84 | -84 |
| | Processor speed (GHz) | 1.4 (Quad-core) | 1 (Dual-core) | 0.4 (Single core) | 0.4 (Single core) |
| | Random-access memory (MB) | 1,024 | 1,024 | 256 | 256 |
| | Custom-application partition (CAP) size (MB) | 256 | 128* | 32 | 32 |
| | FEATURES | Impinj IoT Device Interface | ✓ | ✓ | |
| Support for USB peripherals (slots) | | 3 | 3 | 1 | 1 |
| General-purpose input/output (GPIO) connector | | Integrated | Integrated | Accessory | Accessory |
| Gigabit Ethernet network connectivity | | ✓ | ✓ | | |
| Power Sources | | 802.3at PoE+ | 802.3af PoE/ 802.3at PoE+ | All regions: AC-DC adapter All regions except EU2: IEEE 802.3af PoE EU2: IEEE 802.3at PoE+ | |

* Can be upgraded to 256MB with v. 8.2 firmware.
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.



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.

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