

Indy RS2000 RAIN RFID Reader Module

The Impinj Indy RS2000, a completely integrated surface-mount module, makes embedding high-performance RAIN RFID read/write capability quick and easy with low development risk and fast time-to-market.



Embedded Solution for Demanding Use Cases

Ideal for applications requiring long read range of large tag populations, the small form factor and four antenna ports of the Indy RS2000 enable a wide range of fixed and mobile readers for inventory management, asset tracking, logistics, and industrial automation.



The Impinj Platform include Connectivity Devices



Indy RS2000 Benefits

High Performance

Enables long read range of large tag populations for read reliability in challenging environments

Small Form Factor

Small size (52 x 38 mm) enables a diverse range of connectivity devices and applications

Easy Embedding

High integration enables quick and easy development with low risk and fast time-to-market

Key Features

Ultra-High Output Power

31.5 dBm output power delivers design flexibility (up to four antenna ports)

> Long Read Range

Market-leading receiver performance enables greater than 10 meters read range

> Four Antenna Ports

Flexible configurability with two connector ports and two surface mount ports

Use Cases



Industrial Automation

Enable workflow efficiencies and enhance M2M communication with Indy RS2000-enabled automation solutions in industrial environments



Asset Tracking

Improve efficiency of healthcare environments by managing medical equipment or consumables with portal, shelf or handheld readers



Inventory Accuracy

Drive sales with enhanced store, in-transit, or warehouse inventory visibility with portal, shelf or handheld readers based on Indy RS2000





Reader Chip and Module Family Overview

Indy reader chips and surface-mount modules provide the performance and flexibility needed to enable a full range of RAIN RFID solutions. Indy surface-mount modules provide low development risk and fast time-to-market while Indy chips offer a path to future cost optimization, all based on a common Indy platform.







Product Details

INDY RS500

INDY RS1000

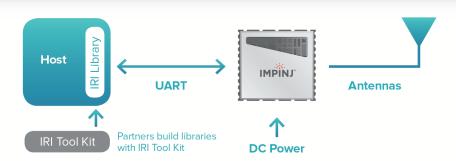
INDY RS2000

| Air Interface Protocol | RAIN RFID / ISO 18000–63 and EPCglobal Gen2v2 compliant | | |
|------------------------|---|--------------------|---|
| Typical Read Range* | ≤ 3 m | ≤ 6 m | ≤ 10 m |
| Output Power | 10 to 23 dBm | 10 to 27 dBm | 10 to 31.5 dBm |
| Rx Sensitivity | -65 dBm | -75 dBm | -74 dBm |
| Antenna Ports | 1 | | 4 |
| DC Power Supply | 3.6 to 5.25 volts | | 3.2 to 5.25 volts |
| Power Consumption | 2.5 watts @ 23 dBm | 3.5 watts @ 27 dBm | 7 watts @ 30 dBm |
| Temperature | Operating: -20 to +70 °C Storage: -30 to +100 °C | | Operating: -20 to +60 °C Storage: -30 to +100 °C |
| Dimensions | 29 x 32 mm | | 38 x 52 mm |

^{*}Assumes 6 dBl reader antenna and far-field tag with Impinj Monza R6 chip

THREE SIMPLE CONNECTIONS

- 1. DC Power
- 2. UART Communication
- 3. RF Antennas



Ready to discuss how Impinj can help your business?

Impinj (NASDAQ: PI) wirelessly connects billions of everyday items such as apparel, medical supplies, and automobile parts to consumer and business applications such as inventory management, patient safety, and asset tracking. The Impinj platform uses RAIN RFID to deliver timely information about these items to the digital world, thereby enabling the Internet of Things.



