



The Impinj Indy surface-mount modules lower the cost and complexity of embedding RAIN RFID reader capability into devices. Retail and healthcare applications from access control to inventory management use Indy reader modules to identify, locate and authenticate items in real time.

Building on Impinj's market-leading reader chip technology, the Indy modules are completely integrated reader solutions that only need three connections (DC power, UART communication and antennas) to start reading tags.

Indy surface-mount modules are fully tested for worldwide compliance and meet regulatory requirements with modular certifications, enabling fast time to market with low development risk.



INDY RS500
Ideal for proximity readers



INDY RS1000
Enables vicinity reader devices



INDY RS2000
Market-leading performance



INDY MODULES ARE PART OF THE CONNECTIVITY
LAYER OF THE IMPINJ PLATFORM

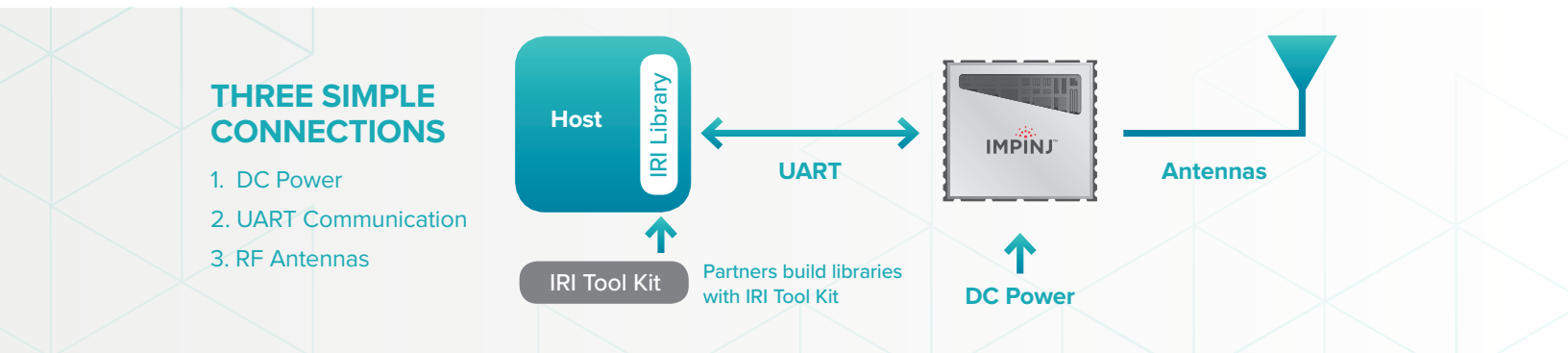
Indy surface-mount reader modules provide easy system integration with the Impinj Radio Interface (IRI) API. The IRI Tool Kit (ITK) includes portable libraries in C, example ports, extensive sample code and reference documentation. Indy chips and modules share the same IRI API, development tools and system architecture.

Impinj recommends starting with a module design to enable fast time to market and later migrating to a chip design when ramping in high volumes. This enables our customers to test the market quickly with flexibility to an easy cost reduction path in the future.

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

* All RS1000 specs preliminary

** Assumes 6 dBi Reader antenna and Monza R6 far - field tag



Device Enablement

Indy RS500

- Printers/Encoders
- Ticketing
- Access Control
- Proximity Readers

For consumables authentication, process control, and access control use cases

Indy RS1000

- Point of Sale Devices
- Light-duty Handhelds
- Mobile/Tablet Reader Sleds

For retail operations, asset tracking, and automating workflows.

Indy RS2000

- Performance Fixed and Mobile Readers
- Portal Readers
- Overhead Readers

For the most demanding use cases in retail, logistics, and industrial automation (metal environments).

