

Impinj xArray RAIN RFID Gateway

The Impinj xArray gateway is a fixed infrastructure RAIN RFID reader system that provides always-on, wide-area monitoring, location, and direction of items.



Real-time Item Intelligence Improves Visibility

Designed for large-scale, item-level applications in retail, healthcare, and manufacturing, the Impinj xArray gateway provides real-time Item Intelligence events including an item's identity, location, and movement. Improve customer service, increase employee productivity, and make better business decisions.



The Impinj Platform includes Connectivity Devices



Impinj xArray Benefits

Continuous, Hands-free Monitoring

Always-on connectivity installs overhead to automatically monitor wide area

Real-Time Item Identification, Location and Movement

Monitor inventory, determine x-y location, and track item movement along two axes

Plug and Play

Integrated system streamlines the deployment process and minimizes installation costs

Key Features

Wide-Area Monitoring

A single Impinj xArray gateway has a field of view up to 1,500 ft² (139m²); coverage extended with multiple gateways

Map Location and Track Movement in Real-Time

Resolve x-y locations to within 5 ft (1.5m) and track movement in two dimensions

> Platform Ready

Leverage Impinj ItemSense software for large-scale data aggregation and device management

Use Cases



Industrial Automation

Maximize operational visibility by identifying, locating and authenticating personnel, inventory, parts, and tools in real-time with always-on Item Intelligence



Asset Tracking

Automate management of products through your supply chain so you spend less time locating and maintaining medical equipment and more time with your patients



Inventory Accuracy

Optimize store operations, improve inventory availability, develop seamless shopping experiences, and collect valuable analytics to drive informed business decisions





Gateway Family Overview

Impinj gateways combine industry-leading reader performance with advanced antenna arrays to continuously identify items and their locations within large areas. The Item Intelligence gathered provides inventory accuracy for retailers, shows real-time asset location for healthcare providers and gives logistics companies visualization into their global supply chain.

Specifications	Impinj xArray Gateway	Impinj xSpan Gateway	Impinj xPortal Gateway
Operating Frequencies Refer to country-specific regulations for channel allocation within the band	FCC: 902-928 MHz / EU1: 865-868 MHz / EU2: 915-921 MHz / GX1: 902- 928 MHz / GX2: 902-925 MHz / GX3: 920-926 MHz / JP2: 916-921 MHz	FCC: 902-928 MHz / EU1: 865-868 MHz / EU2: 915-921 MHz / GX1: 902- 928 MHz / GX2: 902-925 MHz / GX3: 920-926 MHz / JP2: 916-921 MHz	FCC: 902-928 MHz / EU1: 865-868 MHz / GX1: 902-928 MHz / GX2: 902- 925 MHz / GX3: 920-926 MHz
Radiated Power (max) Refer to regulations for country- specific limitations	FCC: 4W EIRP AC/PoE EU1: 2W ERP AC/PoE EU2: 4W ERP AC/PoE+ GX1: 4W EIRP AC/PoE GX2: 4W EIRP AC/PoE GX3: 4W EIRP AC/PoE JP2: 4W EIRP AC/PoE	FCC: 4W EIRP AC/PoE EU1: 2W ERP AC/PoE EU2: 4W ERP AC/PoE+ GX1: 4W EIRP AC/PoE GX2: 4W EIRP AC/PoE GX3: 4W EIRP AC/PoE JP2: 4W EIRP AC/PoE	FCC: 4W EIRP AC/PoE EU1: 2W ERP AC/PoE GX1: 4W EIRP AC/PoE GX2: 4W EIRP AC/PoE GX3: 4W EIRP AC/PoE
Operating Roles	3 (inventory, direction, location)	2 (inventory, direction)	1 (inventory)
Antenna Beams	52	13	2
3dB beam width (sum of all beams)	116° major/75° minor axis: all models except EU1 model 120° major/83° minor axis: EU1 model	116° major/75° minor axis: all models except EU1 model 120° major/83° minor axis: EU1 model	120° major/80° minor axis
Coverage Area (typical)	1,500 ft² (139 m²): all models except EU2 model 2,000 ft² (186 m²): EU2 model	1,000 ft² (93 m²): all models except EU2 model 1,300 ft² (121 m²): EU2 model	700 ft² (65 m²)
Dimensions (H x W x D)	18.0 x 18.0 x 3.0 in (46.7 x 46.7 x 7.5 cm)	18.8 × 8.7 × 3.5 in (48.0 × 22.0 × 9.0 cm)	30.5 x 8.75 x 2.0 in (77.5 x 22.2 x 5 cm)
Weight	17.8 lb (8.0 kg)	7.6 lb (3.4 kg)	6.5 lb (3 kg)
Power Sources	AC-DC power supply: all models IEEE 802.3af PoE: all models except EU2 IEEE 802.3at PoE+: EU2 model		AC-DC power supply: all models IEEE 802.3af PoE: all models
Maximum Read Rate	1100 tags/s		
Antenna Type	Dual-Linear Phased Array antenna		
Regulatory Certifications	For a list of supported regions and geographies please go to: www.impinj.com/supported_regions		
Air Interface Protocol	RAIN RFID: EPCglobal UHF RFID Class 1 Gen2v2 / ISO 18000-63		

Ready to discuss how Impinj can help your business?

CONTACT US / WWW.IMPINJ.COM

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.

