

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 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



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 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 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.

Product Details	xArray Gateway	xSpan Gateway	xPortal Gateway	
Recommended Usage	Portals and entrances	Portals and entrances	Portals and entrances	
	Large area monitoring	Room monitoring		
	Movement detection	Movement detection		
	Locating item			
Air Interface Protocol	RAIN RFID: EPCglobal UHF RFID Class 1 Gen2v2 / ISO 18000-63			
Number of Antenna Beams	52	13	2	
Operating Modes	Inventory (tag monitoring)	Inventory (tag monitoring)	Inventory (tag monitoring)	
	Tag Direction (track tags as they move through sectors along two axes)	Tag Direction (track tags as they move through sectors along a single axis)		
Coverage Area (typical)	\leq 1,500 ft ² (139 m ²)	≤ 1,000 ft² (93 m²)	\leq 700 ft ² (65 m ²)	
Dimensions	18 x 18 x 3 in (46.7 x 46.7 x 7.5 cm)	18.8 x 8.7 x 3.5 in (48 x 22 x 9 cm)	30.5 x 8.75 x 2 in (77.5 x 22.2 x 5 cm)	
Weight	17.8 lbs (8.0 kg)	7.6 lbs (3.4 kg)	6.5 lbs (3 kg)	
Max Receive Sensitivity	-84 dBm			
Supported Regions	For a list of supported regions and geograpies please go to: www.impinj.com/supported_regions			
Software supported	Octane SDK (.NET and Java), LTK (C, C++, .NET, Java), ItemTest, ItemSense			
3dB beam width - sum of all antenna beams	FCC: 116° major axis EU: 120° major axis	FCC: 116° major axis, 75° minor axis EU: 120° major axis, 83° minor axis	120° major axis, 80° minor axis	
Mounting	Vesa 200 or Direct Attach	Vesa 75, Vesa 200 x 100, or Direct Attach	Vesa 75, Vesa 100, Keyhole slots or Direct Attach	
Sealing / Temperature / Humidity		IEC IP50 / Operating -20°C to 50°C; Storage -20°C to 50°C / 5% to 95% non-condensing		
GPIO support	NO	NO	YES	
Management Interface	, , , , , ,	Impinj Web UI; Impinj Rshell Management Console using console port or SSH; SNMPv2/v3 MIBII; EPCglobal Reader Management v1.0.1; Syslog		
Network Connectivity		10/100BASE-T		
RoHS Compliant		YES		
Power Sources	802.3af PoE or AC-DC power supply rated for 24Vdc/2.1A			
Power Consumption	Idle 7 W; Maximum power 15.4 W			

Ready to discuss how Impinj can help your business?

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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.

