

IPJ-A0311-USA Threshold-FS Antenna Datasheet



Overview

Initially designed for boundary/threshold crossing applications, the Impinj Threshold antenna has a very wide beam width to maximize zone coverage. Threshold antennas provide a consistent and continuous read zone when linearly distributed head-to-tail. At 46 x 9 x 2 cm, the Threshold antenna's planar form factor fits readily onto fencing or other borders.

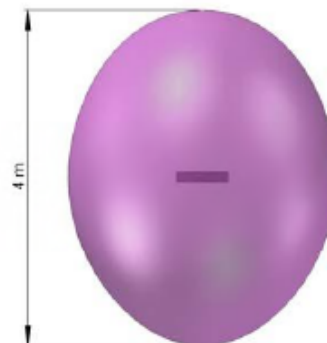
Features

- Strong far-field performance
- Wide beam width to maximize zone coverage
- Low profile form factor of 457 x 89 x 19 mm
- Optimized performance for operation from 902–928 MHz

Read Zone Characteristics



By lining Threshold antennas up along the short edge, one continuous read zone may be established along a boundary line.



The Threshold antenna's wide beam width provides extensive coverage across a boundary edge.



Electrical Specifications

All electrical characteristics are derived, measured, and tested with the antenna embedded within a polyurethane cable protector. These specifications are not guaranteed if the antenna is used outside of an Impinj-approved cable protector. The specifications are guaranteed at 915 MHz.

Parameter	Typical	Units	Conditions/Notes
Frequency Range	902 to 928	MHz	
Far-field Gain	5.0	dBi	
HPBW (x-z plane)	60° _{+3°}	Deg	3 dB beam width
HPBW (y-z plane)	120° _{+3°}	Deg	3 dB beam width
Pattern Variation (x-y plane)	10	dBi	Between max and min
Polarization	Linear		Parallel to short axis
VSWR ¹	2:1		
Input Impedance	50	Ω	
Input Power	30	dBm	33dBm absolute max
ESD	2	KV	Human Body Model

¹ Some item-level applications—where the tag is close to the reader antenna—can cause a 2:1 VSWR from the antenna to the reader. Users should ensure that their reader can tolerate a VSWR as high as 2:1.

Radiation Pattern at 915 MHz (x-y plane)

Please note that all radiation patterns are normalized. See the mechanical dimension drawings to correlate the radiation patterns to the appropriate axes and planes of the antenna.

