

IPJ-A0311-EU1

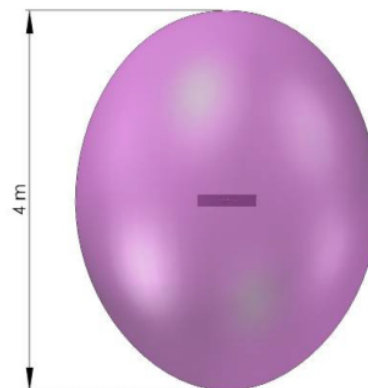
Threshold-FS Antenna Datasheet



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.

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

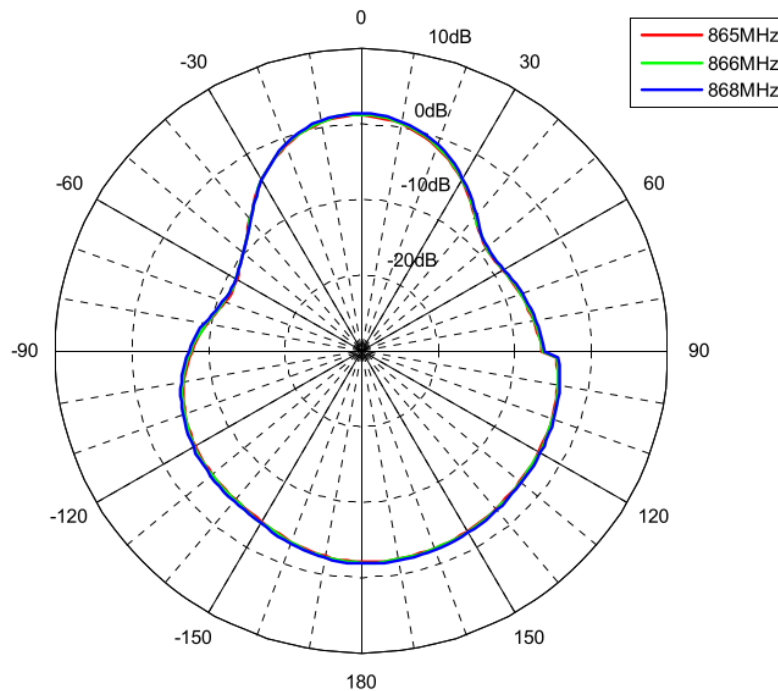
- Strong far-field performance
- Wide beam width to maximize zone coverage
- Low profile form factor of 46 x 9 x 2 mm
- Optimized performance for operation from 865–868 MHz

Electrical Specifications

Parameter	Typical	Units	Conditions/Notes
Frequency Range	865 to 868	MHz	
Far-field Gain	5.0	dBi	
HPBW (x-z plane)	50°±3°	Deg	3 dB beam width
HPBW (y-z plane)	100°±3°	Deg	3 dB beam width
Pattern Variation (x-y plane)	14	dBi	Between max and min
Polarization	Linear		Parallel to short axis
VSWR ¹	1.5:1		
Input Impedance	50	Ω	
Input Power	30	dBm	33dBm absolute max
ESD	2	KV	Human Body Model

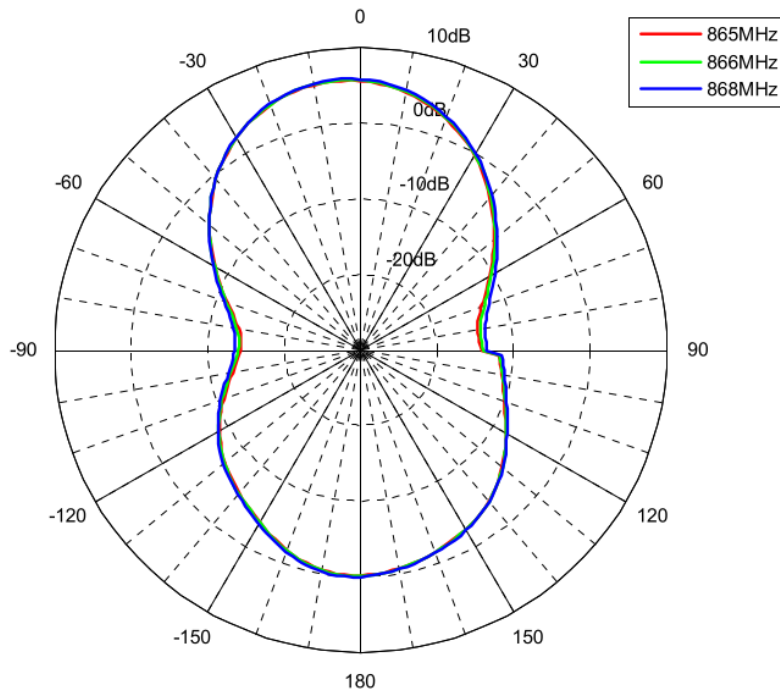
Radiation Pattern at 866 MHz (x-y plane)

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.

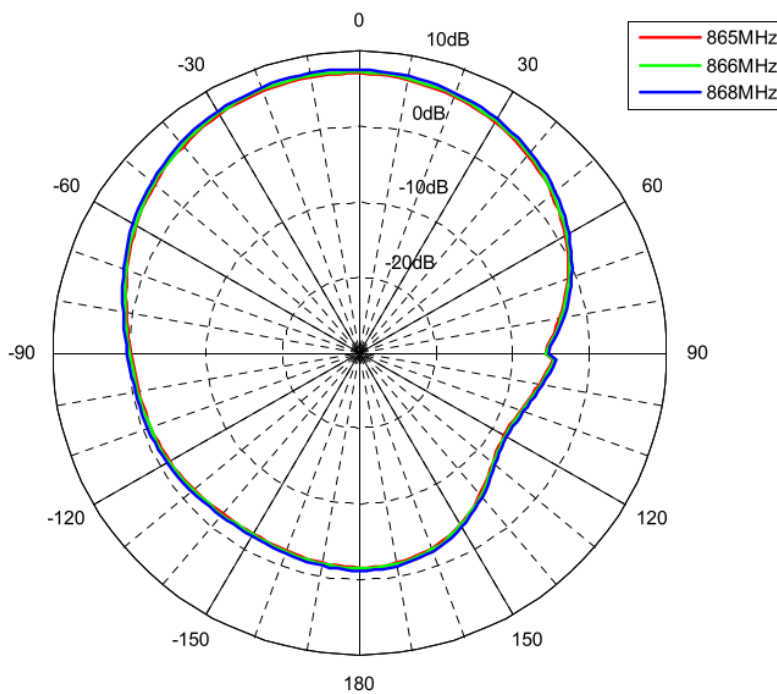


¹ Some item-level applications—where the tag is close to the reader antenna—can cause a 2:1 VSWR from the antenna to the reader. Users should ensure that their reader can tolerate a VSWR as high as 2:1.

Radiation Pattern at 866 MHz (x-z plane)



Radiation Pattern at 866 MHz (y-z plane)



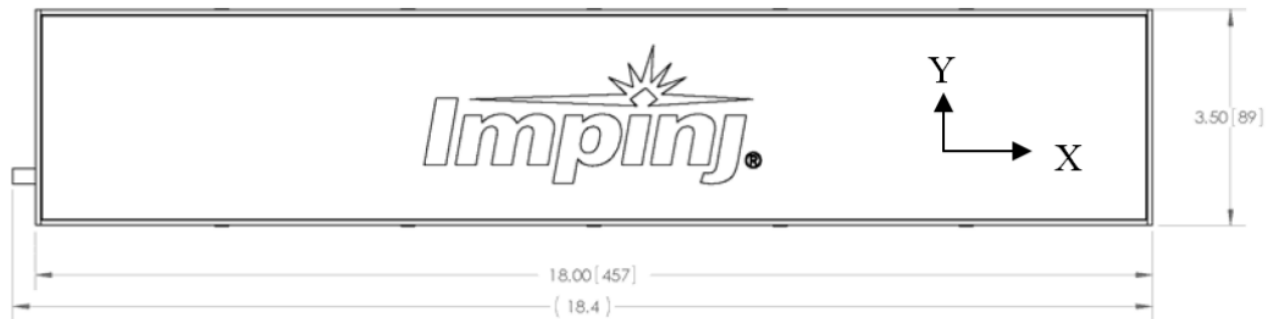
Environmental Specifications

Parameter	Typical	Units	Conditions/Notes
IP Rating	IP54		Indoor and outdoor use
Temperature	-25–55	°C	Indoor and outdoor
Humidity	5–95	%	Relative, non-condensing Performance will be severely degraded if antenna is subjected to any standing water
RoHS	N/A		Designed to meet RoHS, not certified RoHS

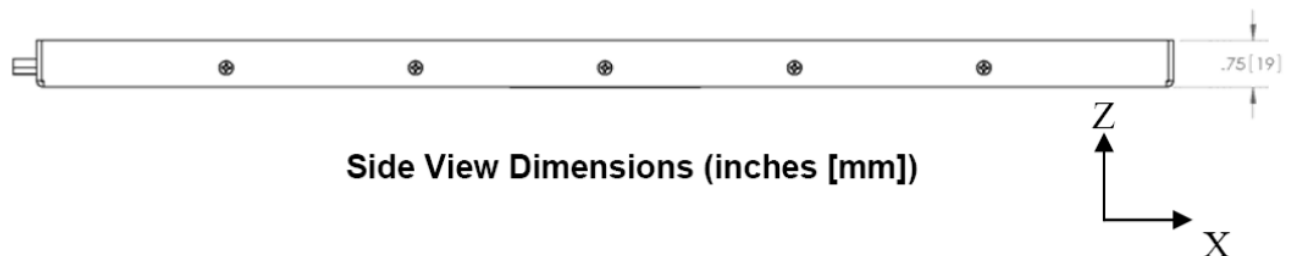
Mechanical Specifications

Parameter	Typical	Units	Conditions/Notes
Weight	710	grams	
Connector	SMA Female		
Cable length	n/a	n/a	n/a
Radome	ABS		
Enclosure	Bent sheet aluminum		Clear finish
Dimensions	457 x 89 x 19	mm	See drawing for detailed dimensions

Mechanical Enclosure



Top View Dimensions (inches [mm])



Side View Dimensions (inches [mm])

Ordering Information

Part number
IPJ-A0311-EU1

Notices:

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Impinj assumes no responsibility for determining if the antenna and operation of the antenna with a reader product complies with laws, guidelines, and regulations of the region in which the antenna is located and operated.

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