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868/915MHz ISM/LoRa Flexible PCB Antenna



AANI-FB-0178

Request Samples | Check Inventory

38 x 10 x 0.2 mm
RoHS Compliant
MSL Level = N/A

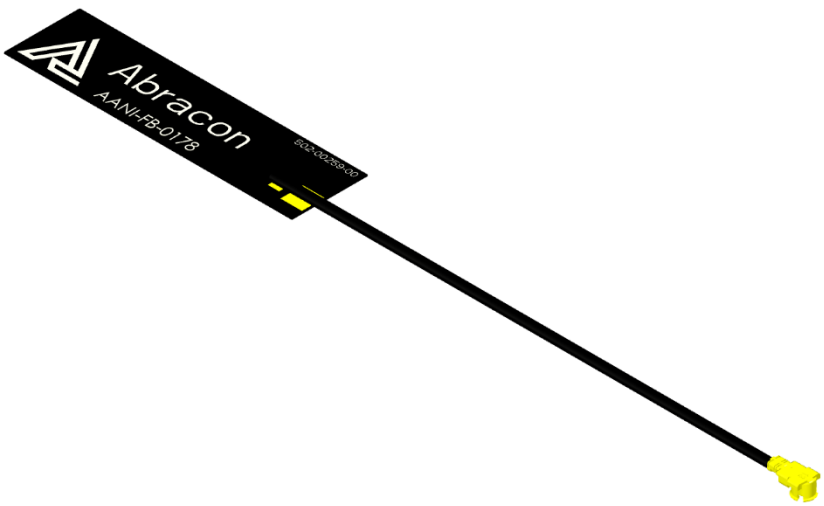
Features

- Frequency Range: 863-870/902-928 MHz
- Peak Gain: -0.7 / -0.8 dBi
- Efficiency: 24.3 / 24.7 %
- Easy Installation on Both Flat and Curved Surfaces
- Can be Installed on Plastic and Human Body
- Strong Adhesive in High-Temperature and Humid Environment
- Fully Customizable Cable Length and Connectors

Applications

- Sub-GHz/LoRa/Sigfox
- Smart Lighting
- Utility & Smart Metering
- Amazon Sidewalk
- Traffic Control and Monitoring
- Energy Generation and Storage System

Product Image



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Electrical Specification

Parameter	Specification		Unit
Operating Frequency	863-870	902-928	MHz
VSWR	< 2.5		:1
Peak Gain	-0.7	-0.8	dBi
Average Gain	-6.2	-6.5	
Maximum Efficiency	24.3	24.7	%
Average Efficiency	23.8	22.8	
Impedance	50		Ω
Polarization	Linear		-
Radiation Pattern (Azimuth)	Omni-directional		-
Maximum Input Power	5		W

Mechanical Specification

Parameter	Specification
Antenna Dimensions	38 x 10 x 0.2 mm
Antenna Type	Flexible PCB
Mounting Type	Adhesive Mount
RF Connector (1)	u.FL/IPEX-1/MHF1
RF Cable Type (1)	Ø1.13 mm
Cable Length (1)	94.6 mm

(1): Fully customizable RF Cable & Connector

Environmental Specification

Parameter	Specification
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
RoHS Complaint	Yes

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Ordering Information

Part Number	Description	Connector Option
AANI-FB-0178-1	868/915MHz ISM/LoRa Flexible PCB Antenna with MHF1 connector and 94.6mm cable	u.FL/IPEX-1/MHF1
AANI-FB-0178-2	868/915MHz ISM/LoRa Flexible PCB Antenna with MHF4 connector and 94.6mm cable	w.FL/IPEX-4/MHF4
AANI-FB-0178-3	868/915MHz ISM/LoRa Flexible PCB Antenna with MHF1 connector and 150mm cable	u.FL/IPEX-1/MHF1
AANI-FB-0178-4	868/915MHz ISM/LoRa Flexible PCB Antenna with MHF4 connector and 150mm cable	w.FL/IPEX-4/MHF4
AANI-FB-0178-5	868/915MHz ISM/LoRa Flexible PCB Antenna with MHF1 connector and 200mm cable	u.FL/IPEX-1/MHF1
AANI-FB-0178-6	868/915MHz ISM/LoRa Flexible PCB Antenna with MHF4 connector and 200mm cable	w.FL/IPEX-4/MHF4

Note: Different cable and connector configurations that are not listed may be available upon request via Abracon online support

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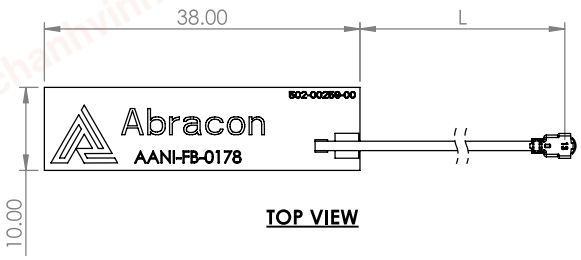


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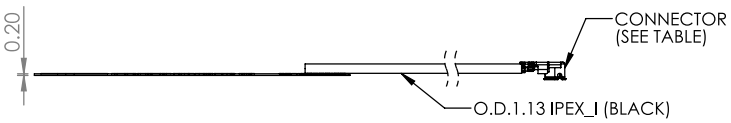
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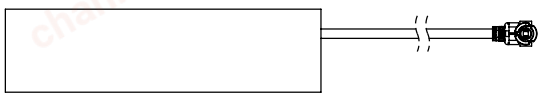
Product Dimensions



TOP VIEW

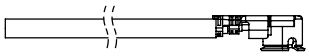


FRONT VIEW

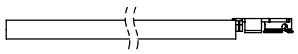


BOTTOM VIEW

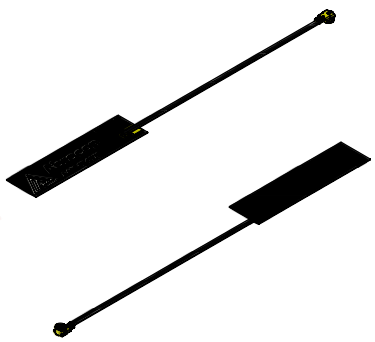
CONNECTOR



u.FL/IPEX-1/MHF1



w.FL/IPEX-4/MHF4



PART NUMBER	CABLE LENGTH (L)	CONNECTOR
AANI-FB-0178-1	94.6	u.FL/IPEX-1/MHF1
AANI-FB-0178-2	94.6	w.FL/IPEX-4/MHF4
AANI-FB-0178-3	150	u.FL/IPEX-1/MHF1
AANI-FB-0178-4	150	w.FL/IPEX-4/MHF4
AANI-FB-0178-5	200	u.FL/IPEX-1/MHF1
AANI-FB-0178-6	200	w.FL/IPEX-4/MHF4

Unit : mm

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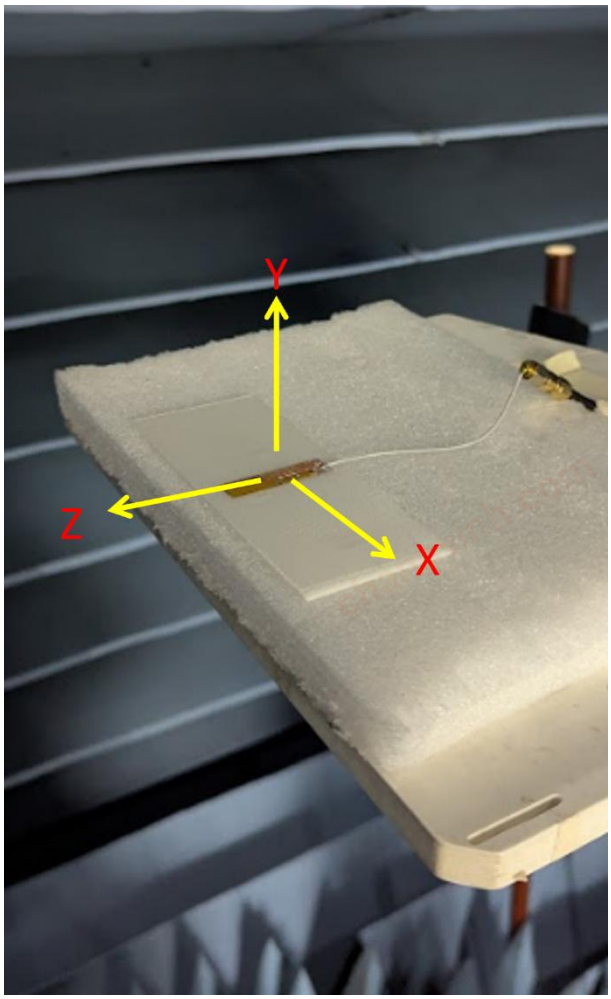


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MSL Level = N/A

Measurement Setup photo



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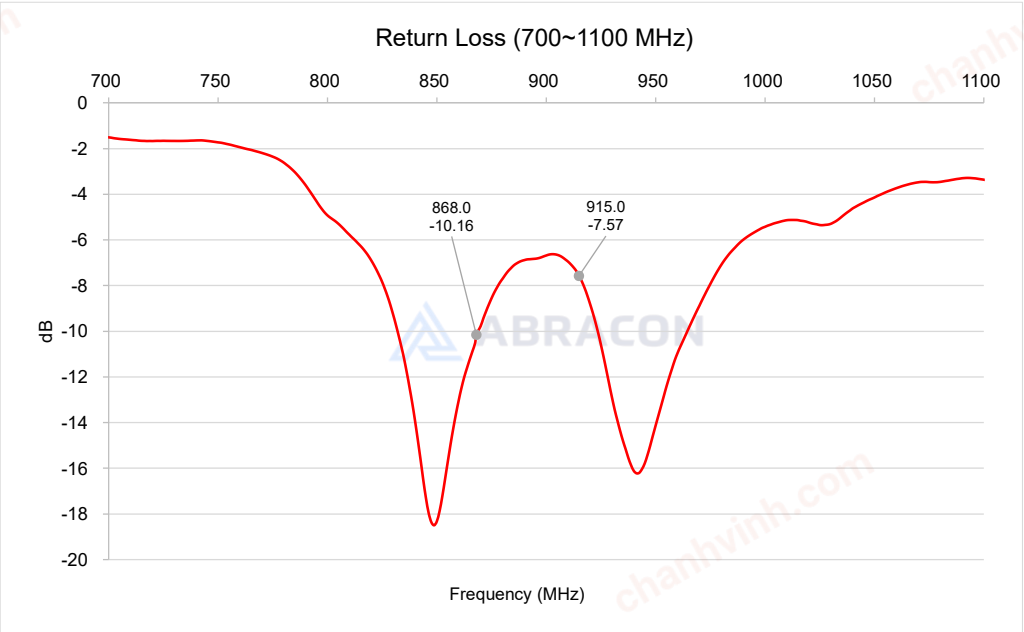


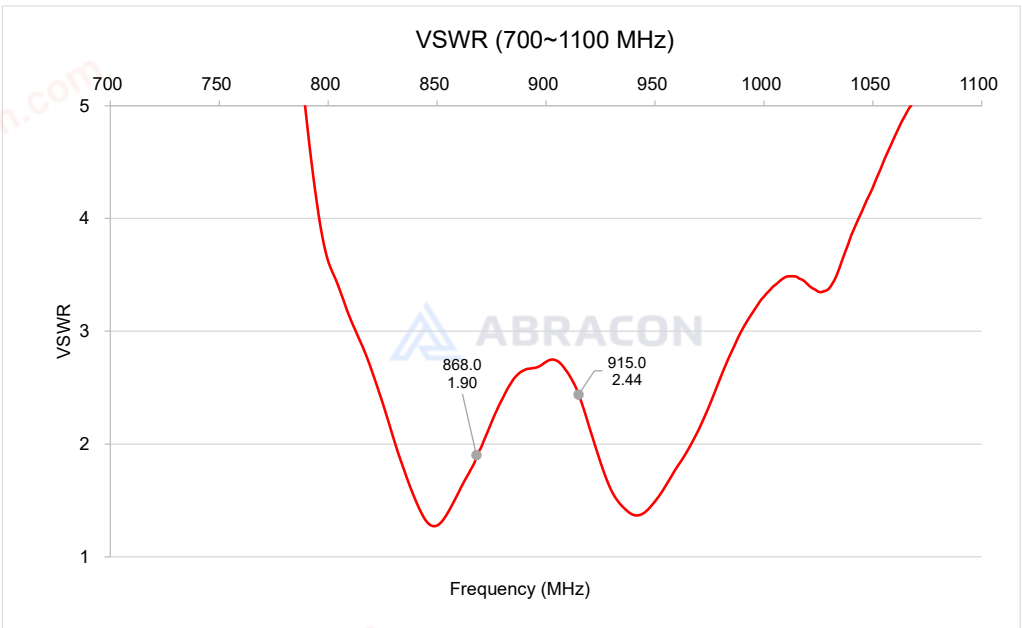
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Reflection Characteristics – Return Loss & VSWR





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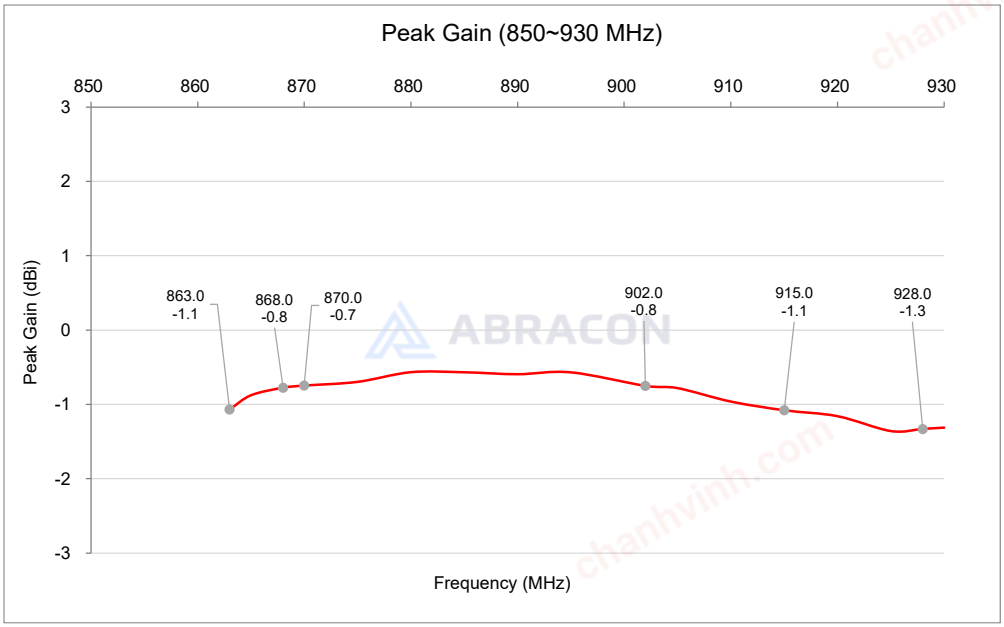


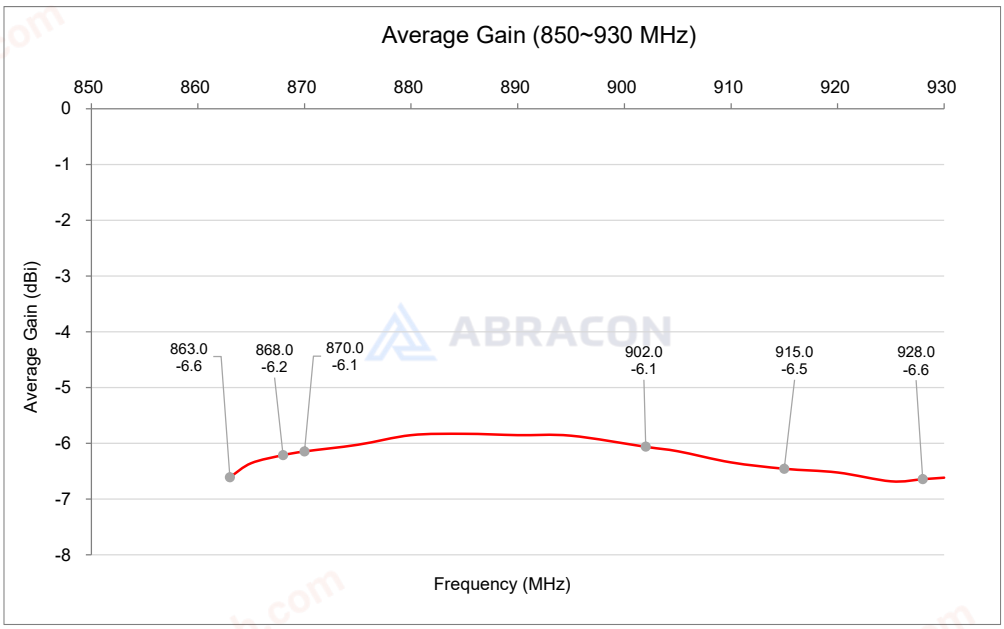
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Radiation Characteristics – Peak Gain & Average Gain





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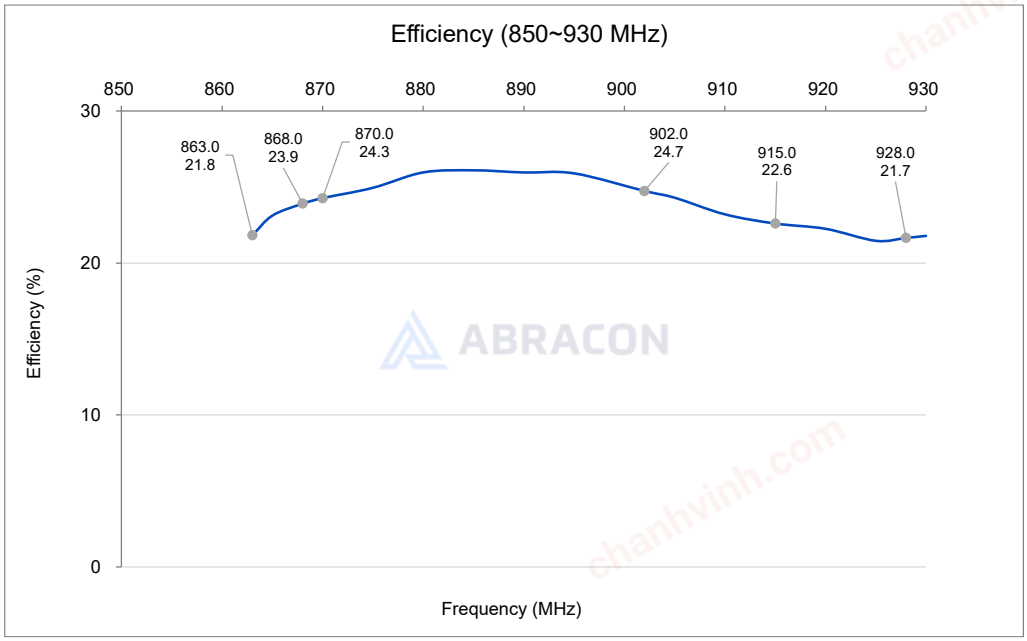


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Radiation Characteristics – Total Efficiency (%)



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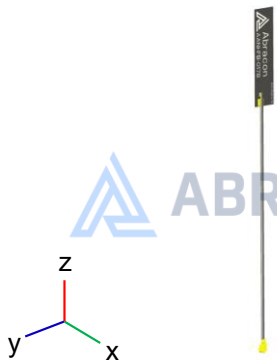
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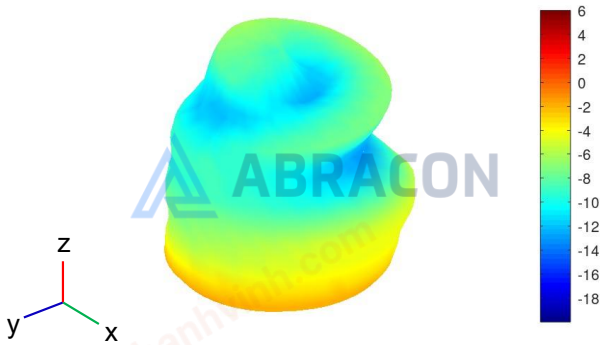
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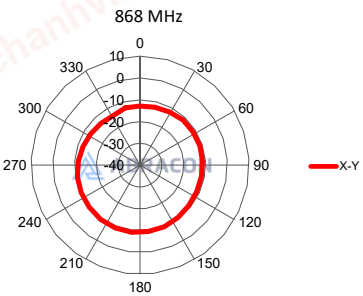
Radiation Characteristics – 3D & 2D pattern

868MHz

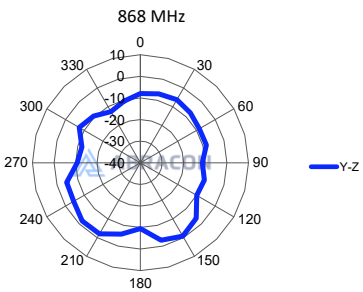




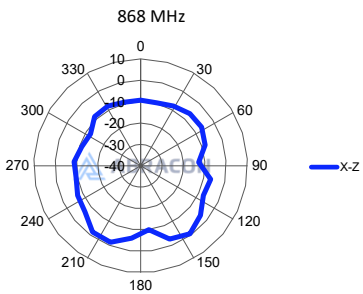
XY plane



YZ plane



XZ plane



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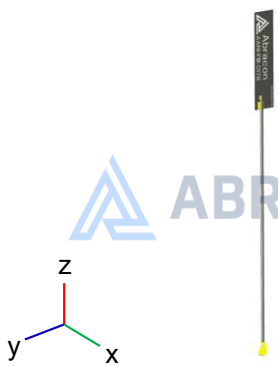


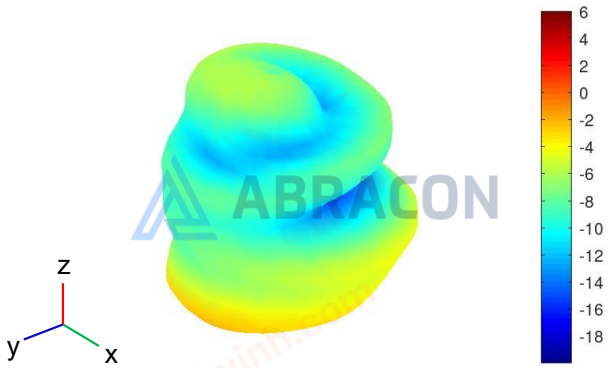
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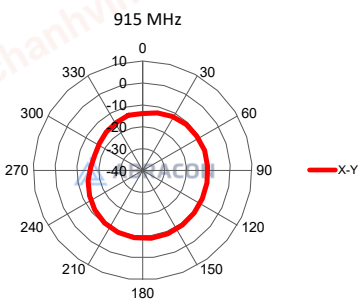
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MSL Level = N/A

915MHz

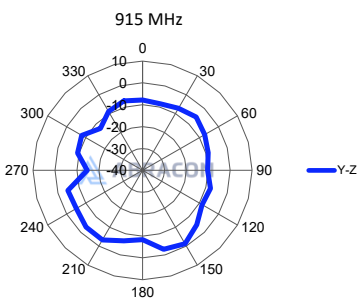




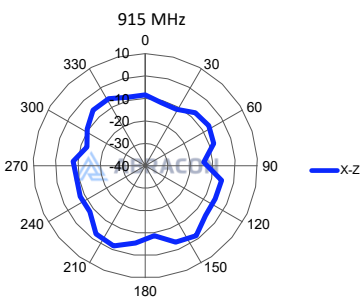
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Packaging

Number of Antenna/ bags: 100 pcs

Total Pcs / package: 1000 pcs

ATTENTION: Abracon LLC's products are Commercial-Off-The-Shelf ('COTS'), which are designed, intended, and validated for use in commercial, industrial, and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.

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