TRI-BAND WI-FI 6E/7 PCB ANTENNA



AANI-FB-0083

Request Samples | Check Inventory

41 x 9 x 0.7 mm
RoHS Compliant
MSL Level = 1

Features

- Compact Design with High Efficiency Up to 90%
- Easy Installation on Flat Surfaces
- Can be Installed on Plastic and Human Body
- Strong Adhesive in High-Temperature and Humid Environment
- Fully Customizable Cable Length and Connector Options
- RoHS Compliant

Applications

- Wi-Fi/WLAN coverage
  - Wi-Fi 7 (802.11be)
  - Wi-Fi 6/6E (802.11ax)
  - Wi-Fi 4/5 (802.11b/g/n/ac)
- Bluetooth®/ ZigBee® / Thread/ Matter
- Router and Networking
- Home Automation and Remote Sensing

Product Image



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RoHS Compliant
MSL Level = 1

Ordering Information

Part Number	Description	Connector Option
AANI-FB-0083-0050I	TRI-BAND WI-FI 6E/7 PCB ANTENNA with MHF1 connector and 50mm cable	MHF1
AANI-FB-0083-0050W	TRI-BAND WI-FI 6E/7 PCB ANTENNA with MHF4 connector and 50mm cable	MHF4
AANI-FB-0083-0100I	TRI-BAND WI-FI 6E/7 PCB ANTENNA with MHF1 connector and 100mm cable	MHF1
AANI-FB-0083-0100W	TRI-BAND WI-FI 6E/7 PCB ANTENNA with MHF4 connector and 100mm cable	MHF4
AANI-FB-0083-0150I	TRI-BAND WI-FI 6E/7 PCB ANTENNA with MHF1 connector and 150mm cable	MHF1
AANI-FB-0083-0150W	TRI-BAND WI-FI 6E/7 PCB ANTENNA with MHF4 connector and 150mm cable	MHF4
AANI-FB-0083-0200I	TRI-BAND WI-FI 6E/7 PCB ANTENNA with MHF1 connector and 200mm cable	MHF1
AANI-FB-0083-0200W	TRI-BAND WI-FI 6E/7 PCB ANTENNA with MHF4 connector and 200mm cable	MHF4
AANI-FB-0083-0250I	TRI-BAND WI-FI 6E/7 PCB ANTENNA with MHF1 connector and 250mm cable	MHF1
AANI-FB-0083-0250W	TRI-BAND WI-FI 6E/7 PCB ANTENNA with MHF4 connector and 250mm cable	MHF4
AANI-FB-0083-0300I	TRI-BAND WI-FI 6E/7 PCB ANTENNA with MHF1 connector and 300mm cable	MHF1
AANI-FB-0083-0300W	TRI-BAND WI-FI 6E/7 PCB ANTENNA with MHF4 connector and 300mm cable	MHF4
AANI-FB-0083-0350I	TRI-BAND WI-FI 6E/7 PCB ANTENNA with MHF1 connector and 350mm cable	MHF1
AANI-FB-0083-0350W	TRI-BAND WI-FI 6E/7 PCB ANTENNA with MHF4 connector and 350mm cable	MHF4

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

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MSL Level = 1

Electrical Specification

Parameter	Specification			Unit
Operating Frequency	2400 – 2483.5	5150 - 5850	5925 - 7125	MHz
VSWR (Typ.)	< 2.0	< 2.0	< 2.5	:1
Peak Gain	2.6	3.9	4.2	dBi
Minimum Total Efficiency	95.1	94.6	81.1	%
Average Total Efficiency	91.5	87.3	72.1	%
Maximum Total Efficiency	84.5	83.1	63.3	%
Impedance	50			Ω
Polarization	Linear			-
Radiation Pattern	Omni-directional			-

Mechanical Specification

Parameter	Specification
Antenna Dimensions	41 x 9 x 0.7 mm
Antenna Type	Rigid PCB
Mounting Type	Adhesive
RF Connector (1)	MHF1, MHF4
RF Cable Type (1)	Ø1.13 mm
Cable Length (1)	50 mm, 100 mm, 150 mm, 200 mm, 250 mm, 300 mm, 350mm

(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
PB Free	Yes

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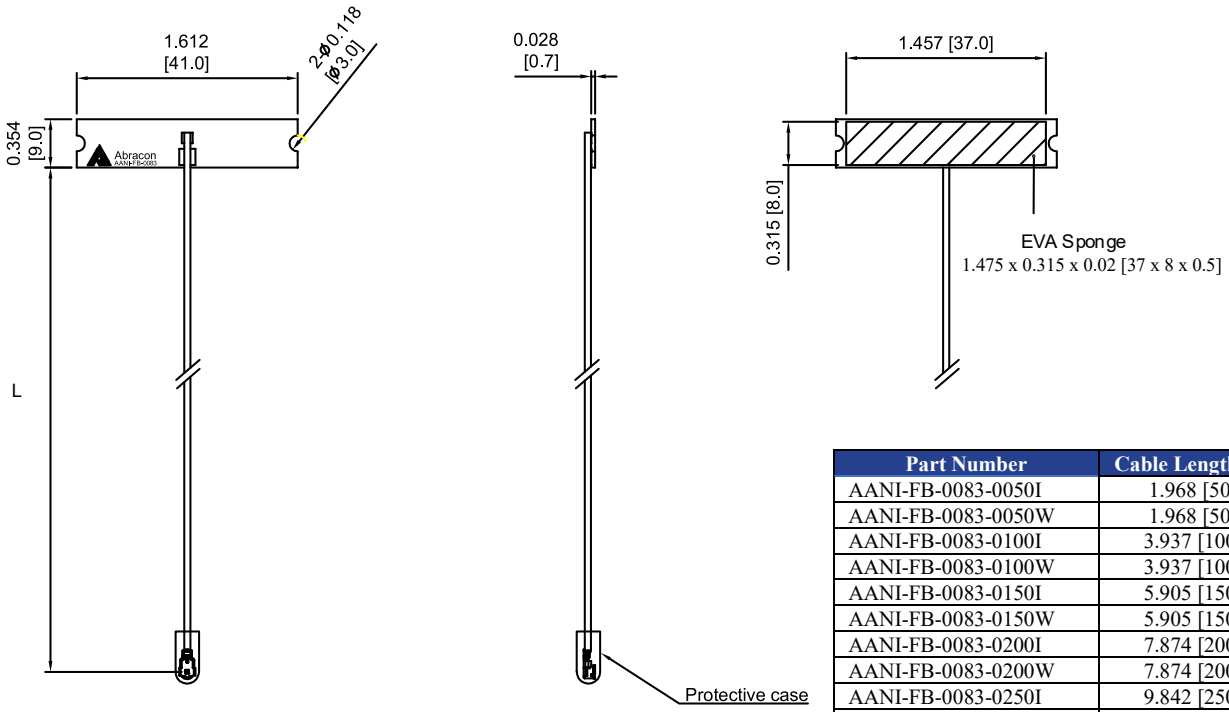


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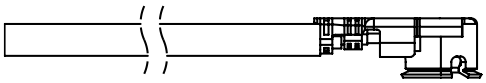
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RoHS Compliant
MSL Level = 1

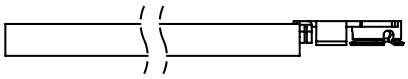
Product Dimensions



Part Number	Cable Length (L)	Connector
AANI-FB-0083-0050I	1.968 [50]	MHF1
AANI-FB-0083-0050W	1.968 [50]	MHF4
AANI-FB-0083-0100I	3.937 [100]	MHF1
AANI-FB-0083-0100W	3.937 [100]	MHF4
AANI-FB-0083-0150I	5.905 [150]	MHF1
AANI-FB-0083-0150W	5.905 [150]	MHF4
AANI-FB-0083-0200I	7.874 [200]	MHF1
AANI-FB-0083-0200W	7.874 [200]	MHF4
AANI-FB-0083-0250I	9.842 [250]	MHF1
AANI-FB-0083-0250W	9.842 [250]	MHF4
AANI-FB-0083-0300I	11.811 [300]	MHF1
AANI-FB-0083-0300W	11.811 [300]	MHF4
AANI-FB-0083-0350I	13.779 [350]	MHF1
AANI-FB-0083-0350W	13.779 [350]	MHF4

CONNECTOR


MHF1


MHF4

Unit : inches [mm]

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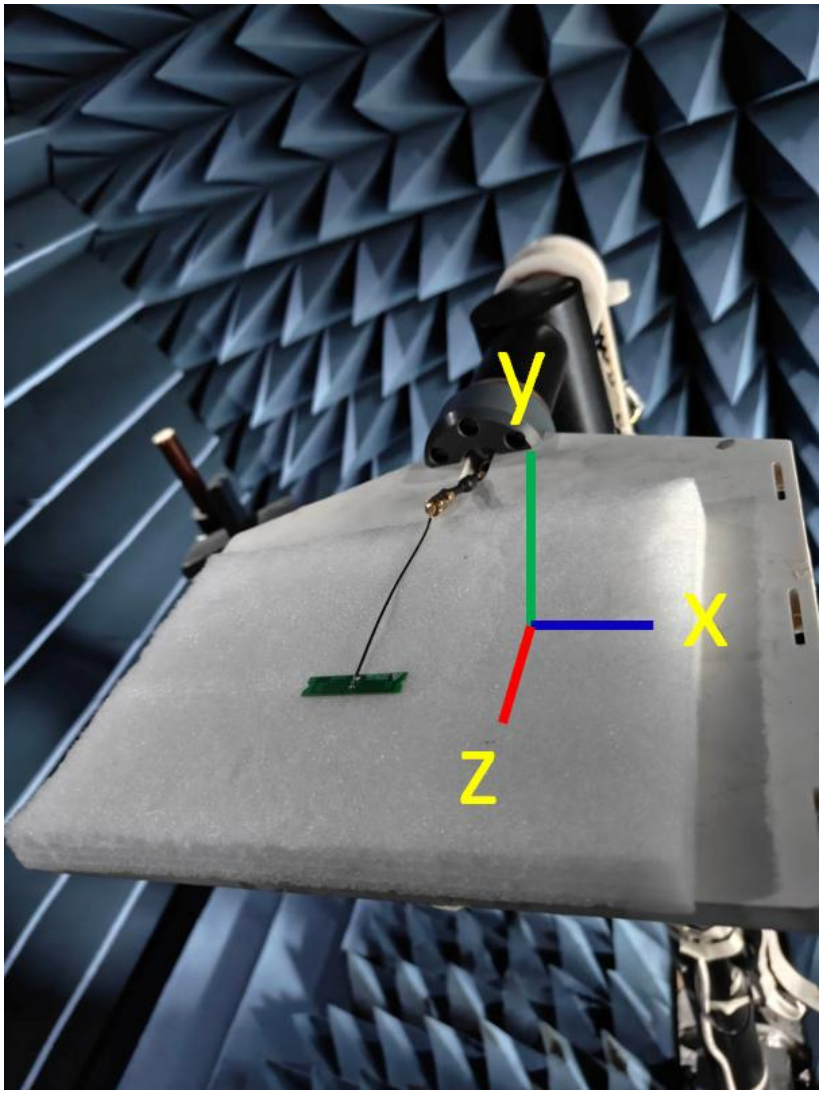


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41 x 9 x 0.7 mm
RoHS Compliant
MSL Level = 1

Measurement Setup Photo



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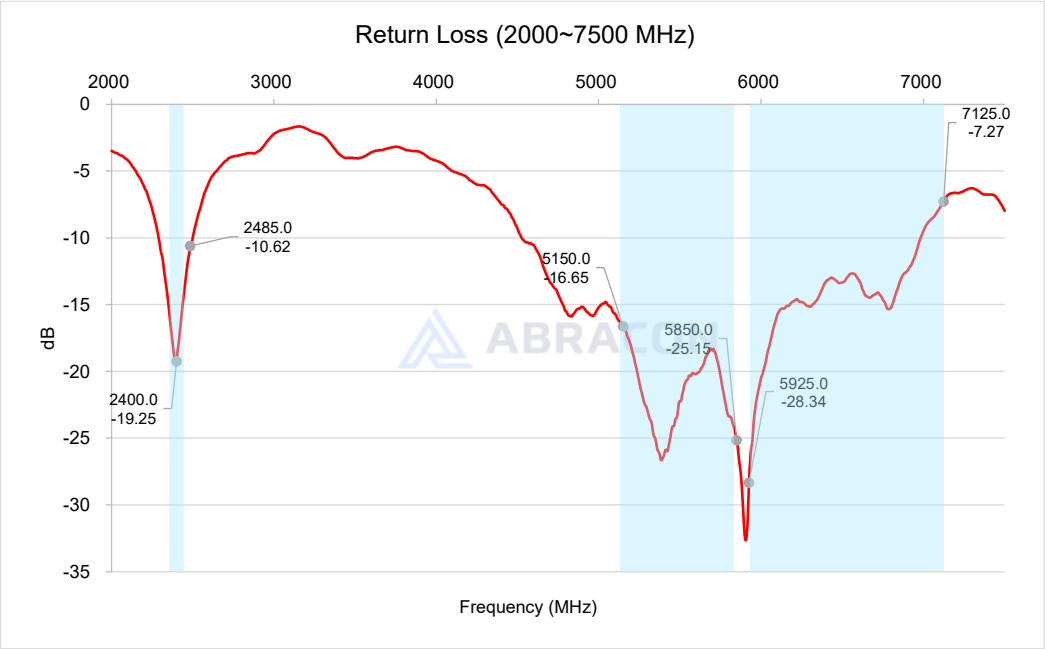


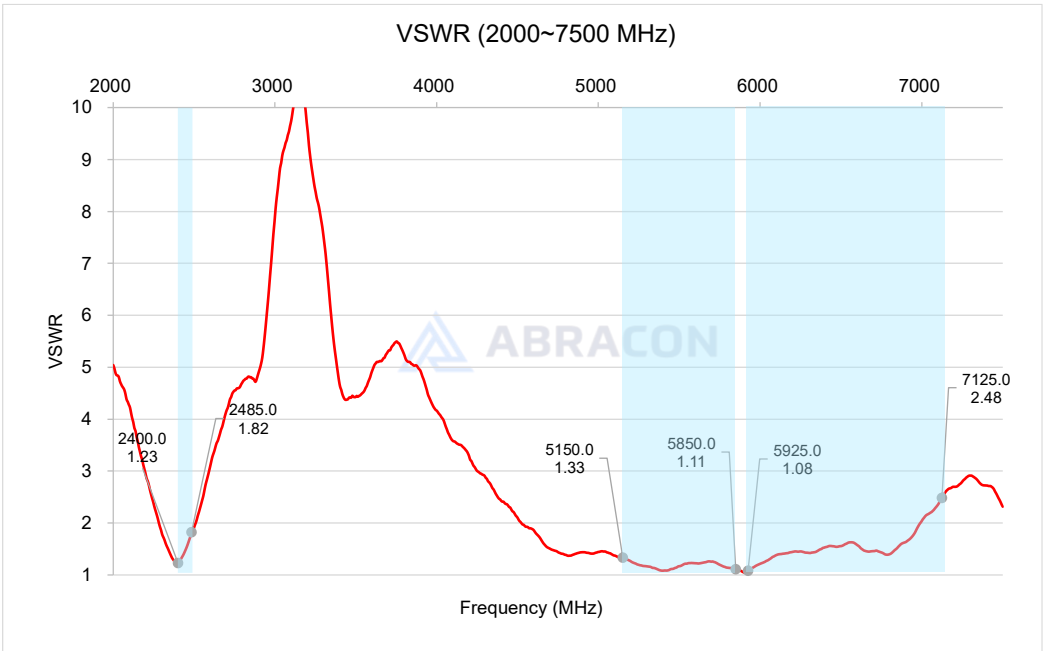
AANI-FB-0083

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41 x 9 x 0.7 mm
RoHS Compliant
MSL Level = 1

Reflection Characteristics – Return Loss & VSWR





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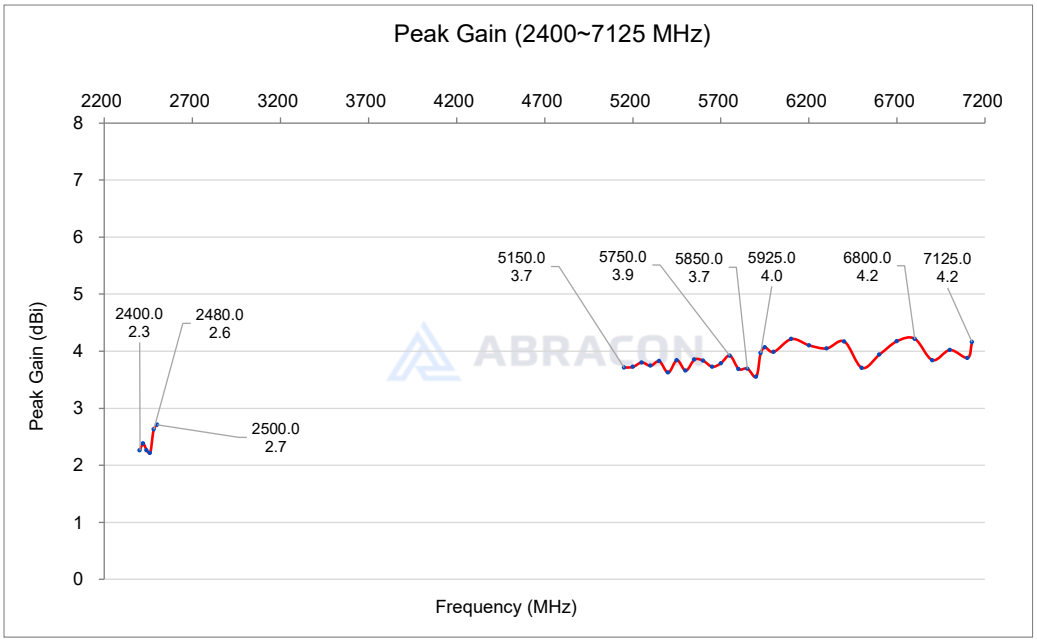


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41 x 9 x 0.7 mm
RoHS Compliant
MSL Level = 1

Radiation Characteristics – Peak Gain



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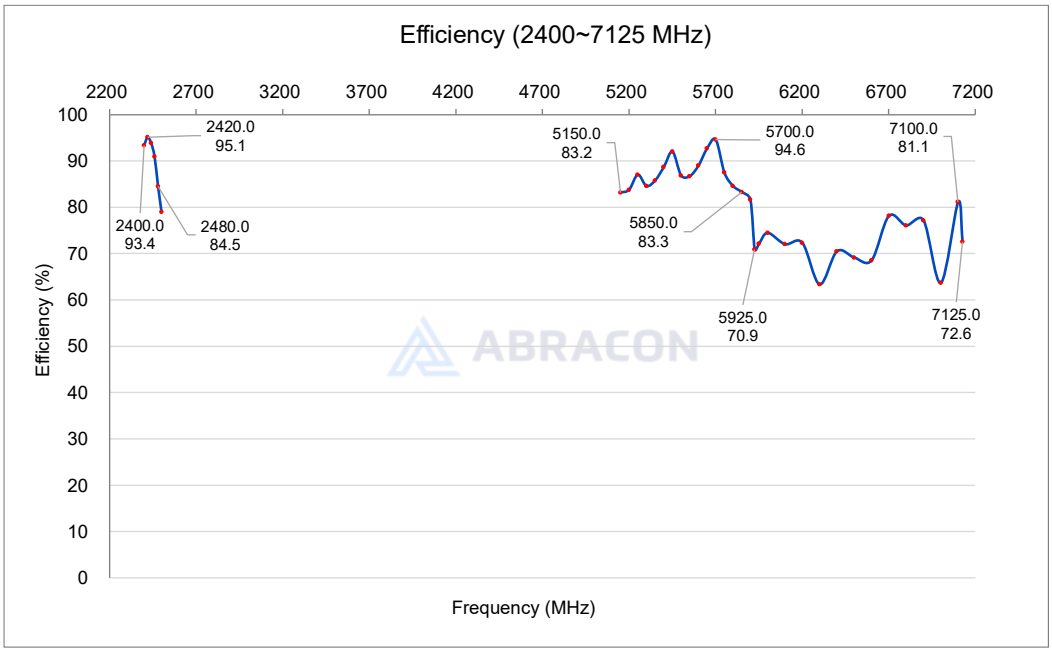


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41 x 9 x 0.7 mm
RoHS Compliant
MSL Level = 1

Radiation Characteristics – Total Efficiency (%)



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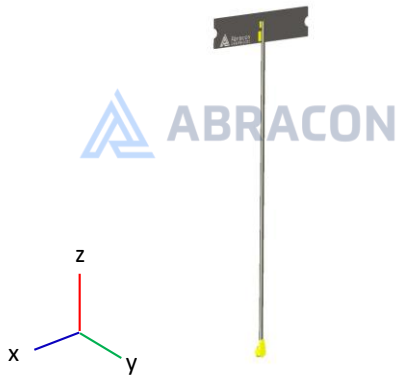
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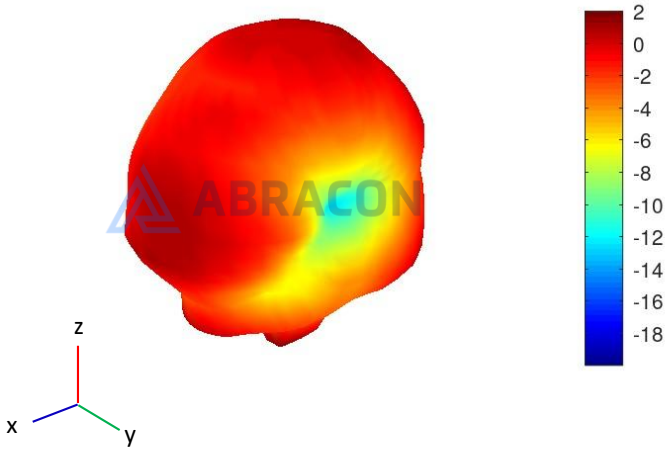
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41 x 9 x 0.7 mm
RoHS Compliant
MSL Level = 1

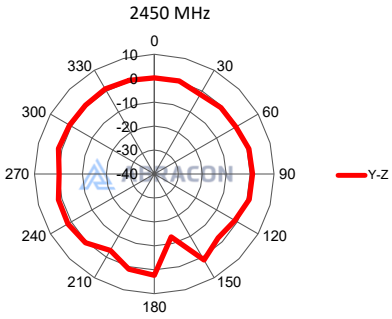
Radiation Characteristics – 3D & 2D pattern

2450MHz

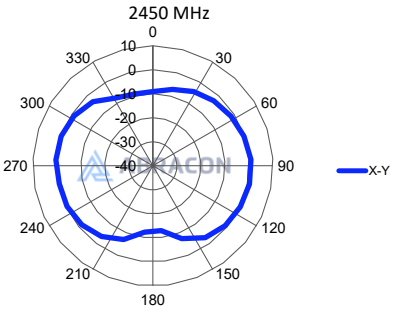




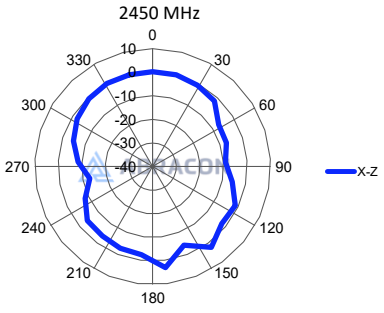
YZ plane



XY plane



XZ plane



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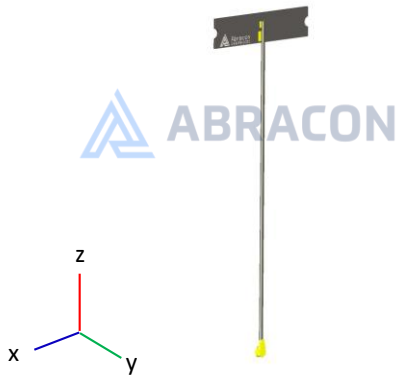


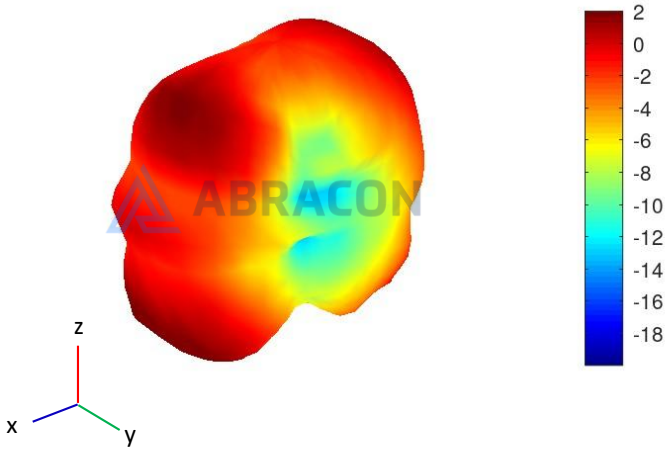
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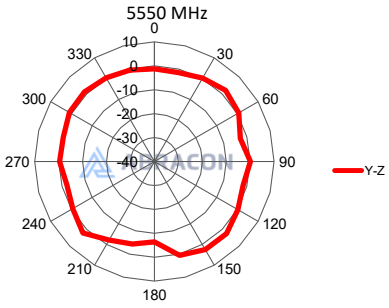
41 x 9 x 0.7 mm
RoHS Compliant
MSL Level = 1

5550MHz

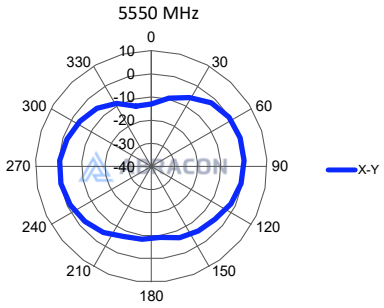




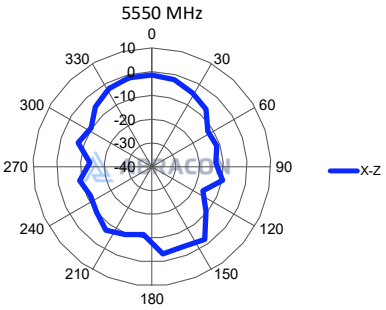
YZ plane



XY plane



XZ plane



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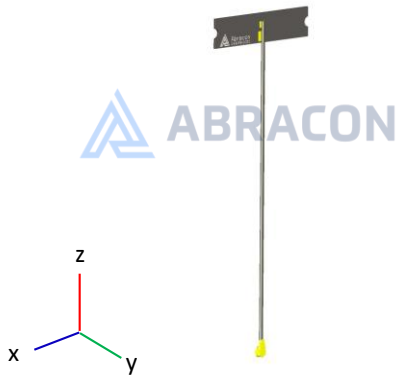


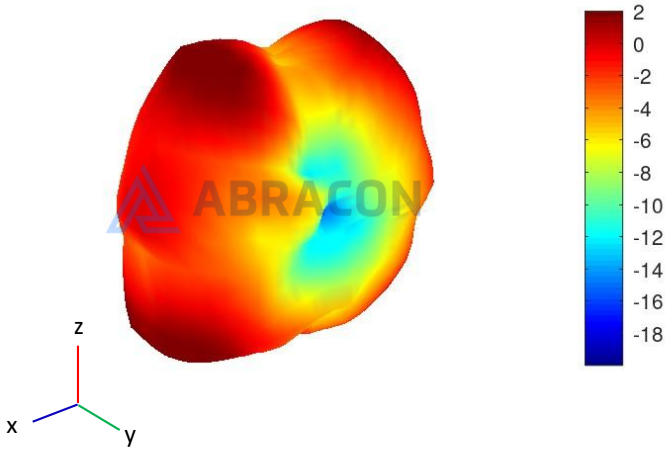
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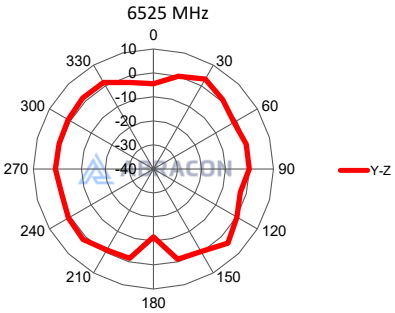
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6525MHz

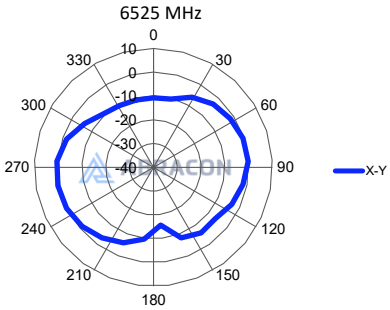




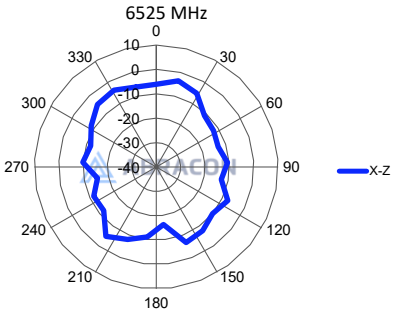
YZ plane



XY plane



XZ plane



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RoHS Compliant
MSL Level = 1

Packaging

Number of Antenna/ bags: 50 pcs

Total Pcs / package: 1000 pcs

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