

Tri-band Wi-Fi6E Flexible Printed Antenna (2.4/5/6 GHz)



AFB4506A-0100II

Request Samples



Check Inventory



45 x 6 x 0.4 mm
RoHS Compliant
MSL Level = N/A

Features

- High gain 1.8dBi ~ 4.3dBi
- Compact design with high efficiency up to 69%
- 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
- RoHS compliant

Applications

- WiFi/WLAN coverage
 - WiFi 7 (802.11be)
 - WiFi 6/6E (802.11ax)
 - WiFi 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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Electrical Specification

Parameter	Specification			Unit
Operating Frequency	2400 – 2500	5150 - 5850	5925 - 7125	MHz
VSWR (Typ.)	2.0			
Peak gain	1.8	3.6	4.3	dBi
Efficiency (Maximum)	69	58.7	67.4	%
Impedance	50			Ω
Polarization	Linear			
Radiation Pattern	Omni-directional			

Mechanical Specification

Parameter	Specification
Antenna Dimensions	45 x 6 x 0.4 mm
Antenna Type	Flexible Printed Circuit
Mounting Type	Adhesive
RF Connector	u.FL/IPEX-1/MHF1
RF Cable Type	\varnothing 1.13 mm
Cable Length	100 \pm 3 mm

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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Ordering Information

Part Number	Description	Connector Option
AFB4506A -0100II	Tri-band Wi-Fi6E Flexible Printed Antenna (2.4/5/6 GHz) with IPEX-1 connector with 100mm cable length	u.FL/IPEX-1/MHF1
AFB4506A -0100IW	Tri-band Wi-Fi6E Flexible Printed Antenna (2.4/5/6 GHz) with IPEX-4 connector with 100mm cable length	w.FL/IPEX-4/MHF4

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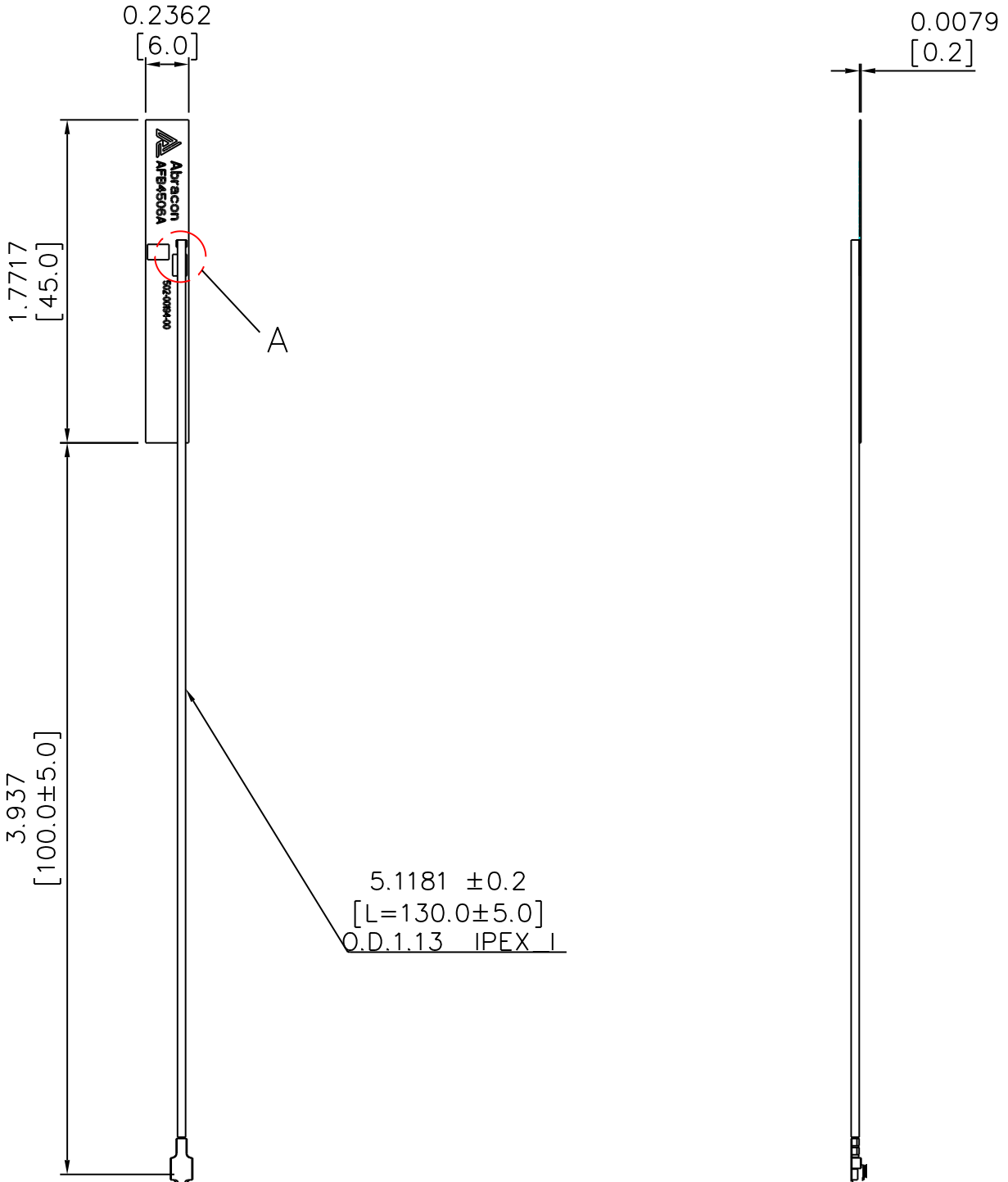


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Product Dimension



Unit : inches [mm]



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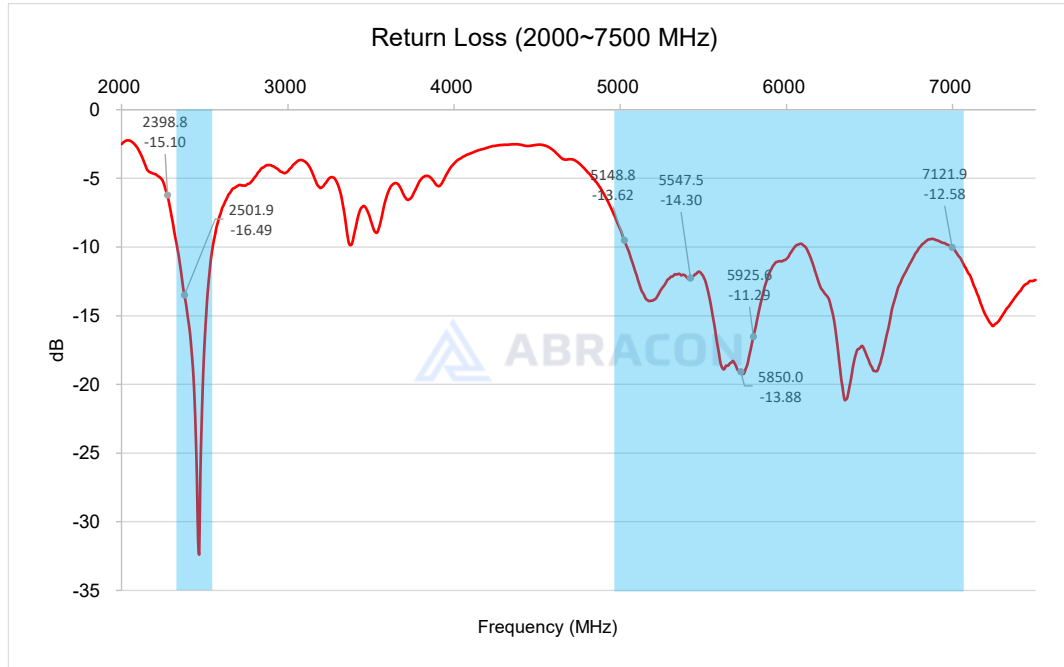


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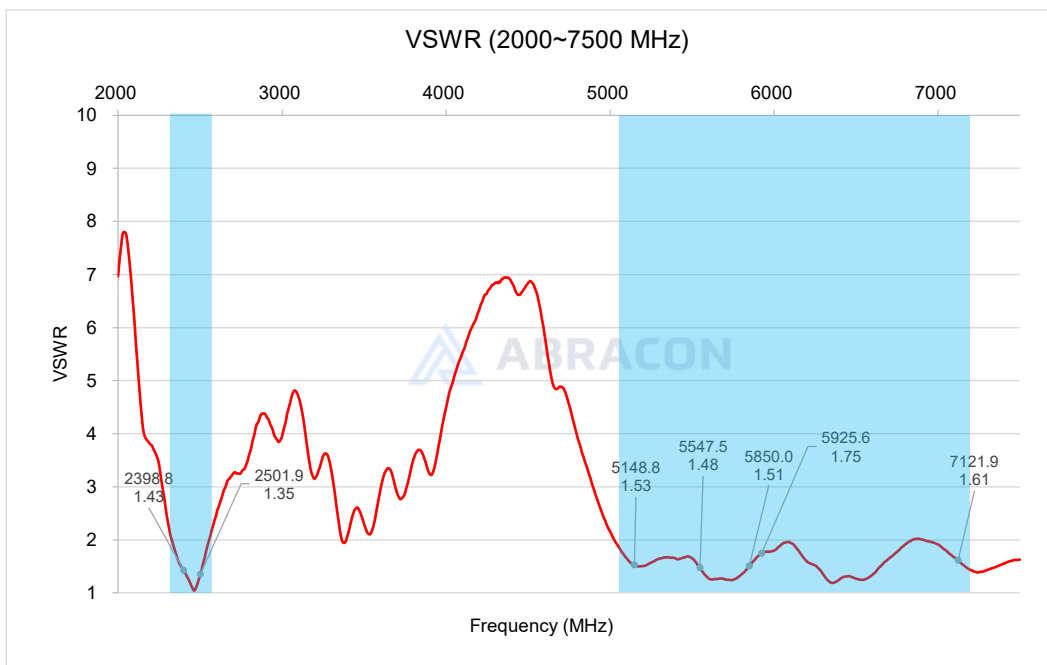


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Test Measurement – Return Loss



Test Measurement – VSWR



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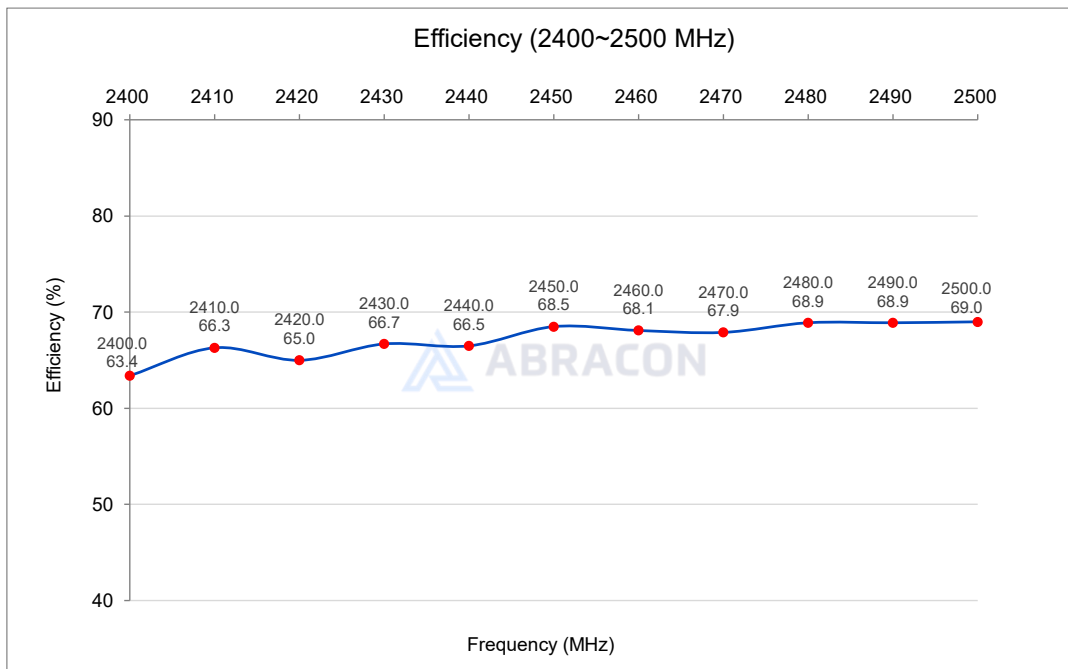
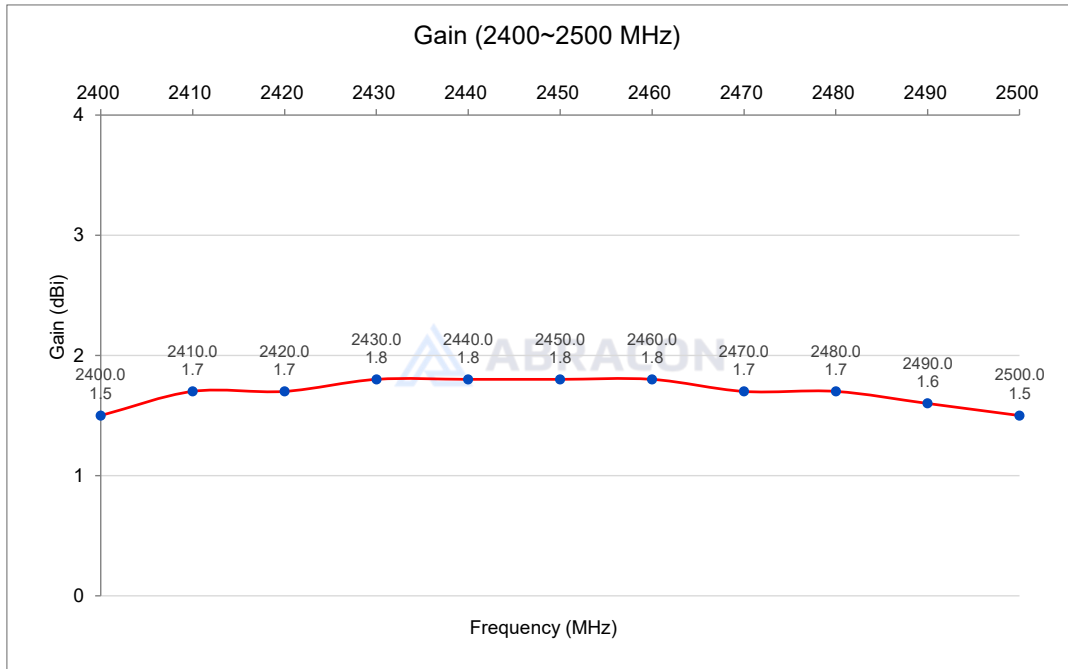


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Gain and Efficiency



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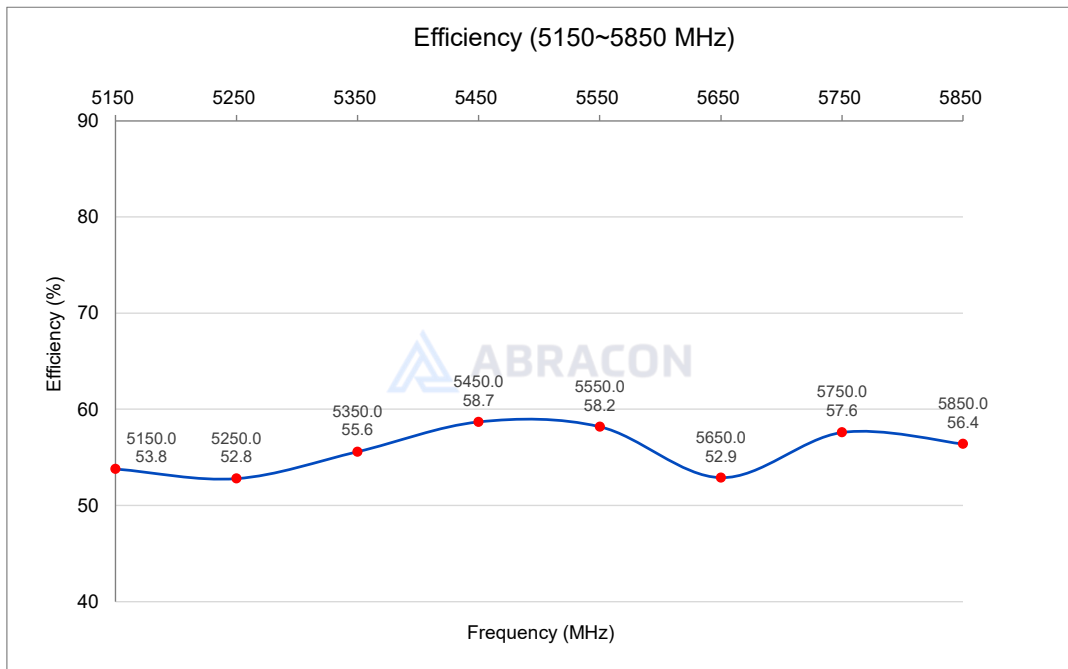
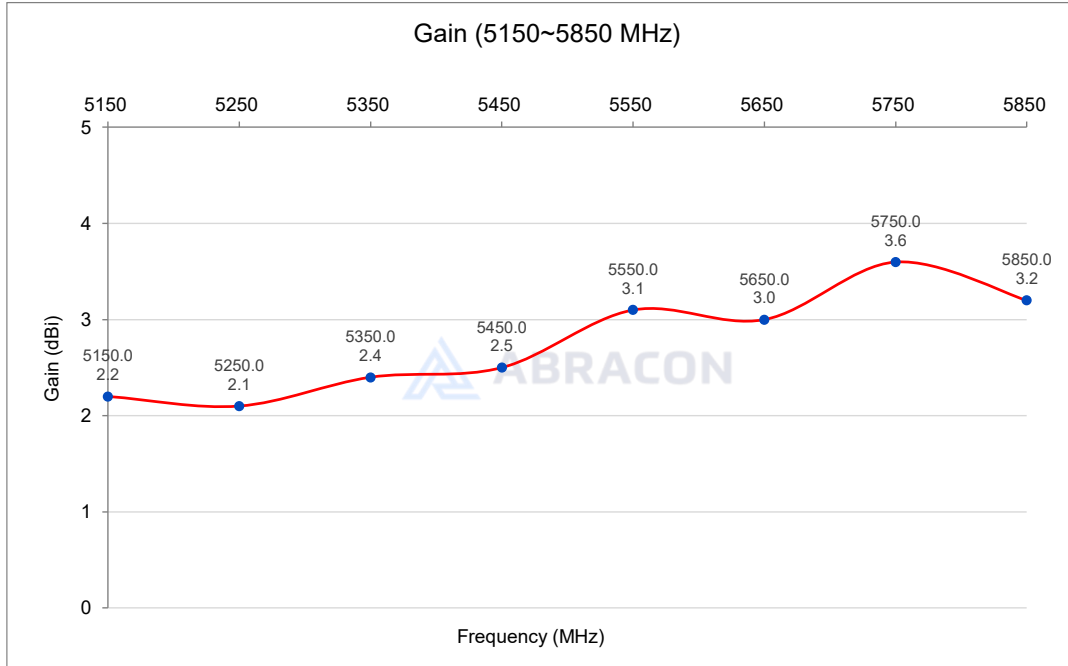
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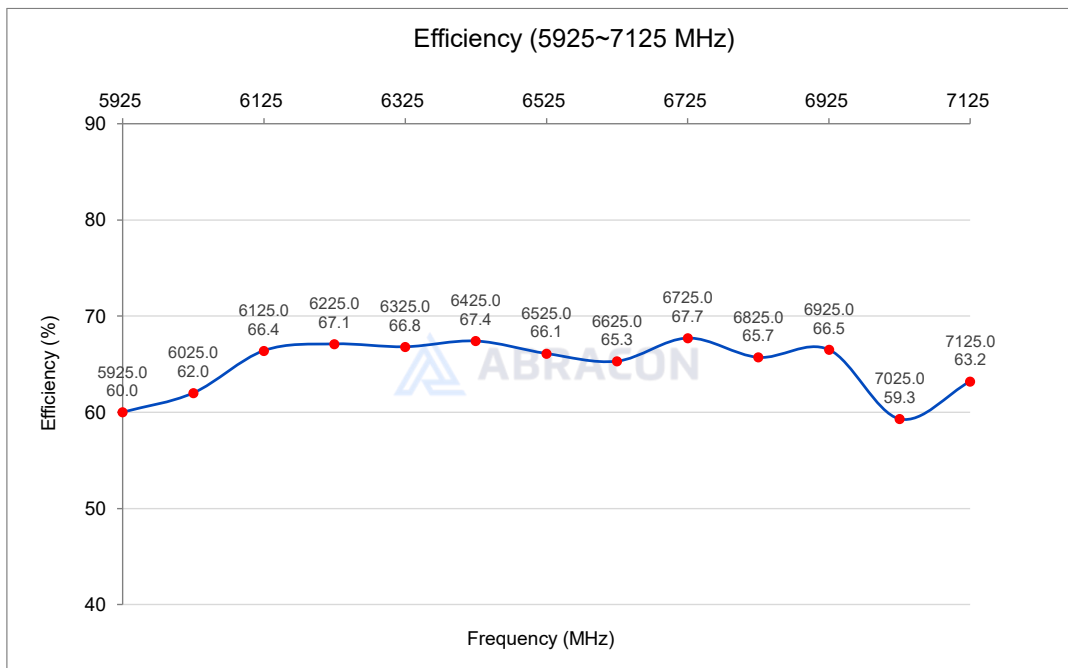
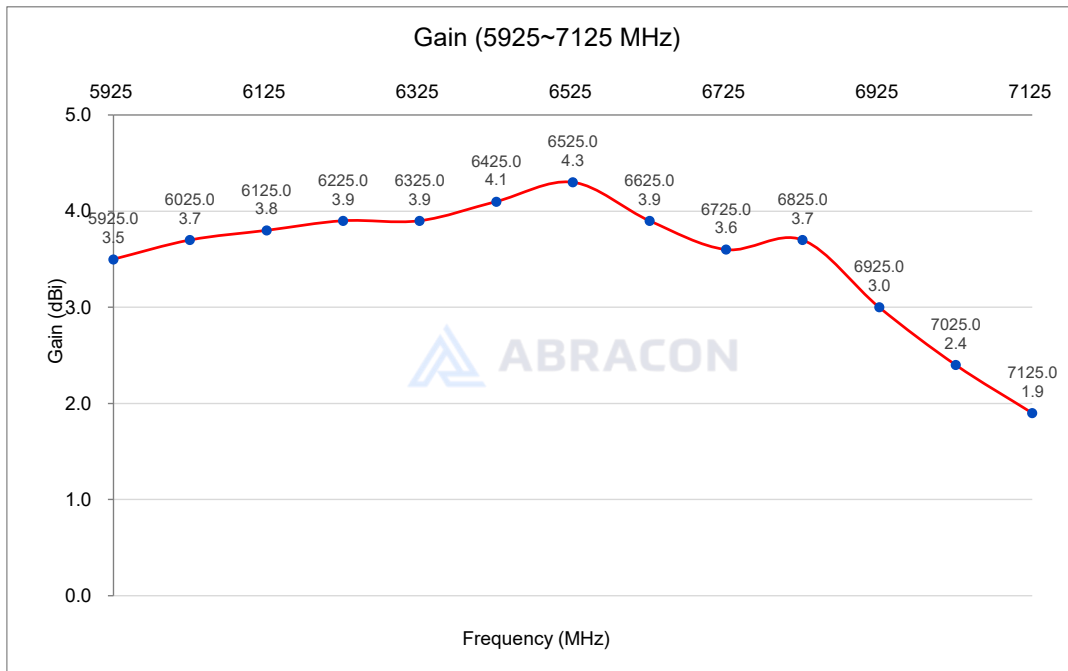
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Frequency (MHz)	Efficiency (dB)	Efficiency (%)	Gain (dBi)
2400	-2.0	63.4	1.5
2450	-1.6	68.5	1.8
2500	-1.6	69.0	1.5
5150	-2.7	53.8	2.2
5250	-2.8	52.8	2.1
5350	-2.5	55.6	2.4
5450	-2.3	58.7	2.5
5550	-2.4	58.2	3.1
5650	-2.8	52.9	3.0
5750	-2.4	57.6	3.6
5850	-2.5	56.4	3.2
5925	-2.2	60.0	3.5
6125	-1.8	66.4	3.8
6225	-1.7	67.1	3.9
6425	-1.7	67.4	4.1
6525	-1.8	66.1	4.3
6725	-1.7	67.7	3.6
6825	-1.8	65.7	3.7
7025	-2.3	59.3	2.4
7125	-2.0	63.2	1.9

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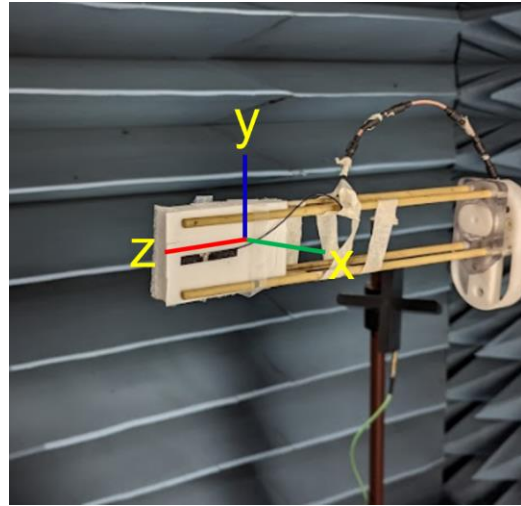
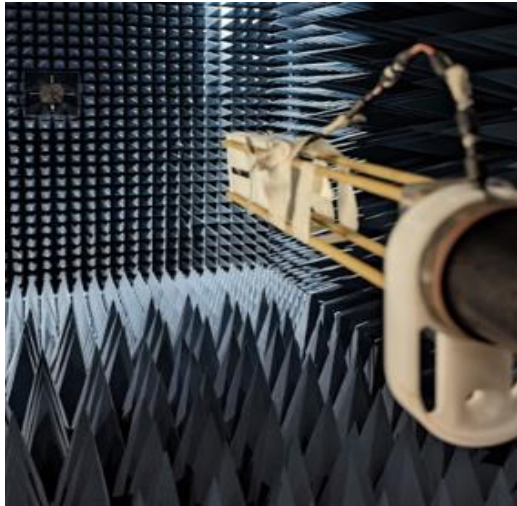


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Antenna Gain Test – Chamber Setup



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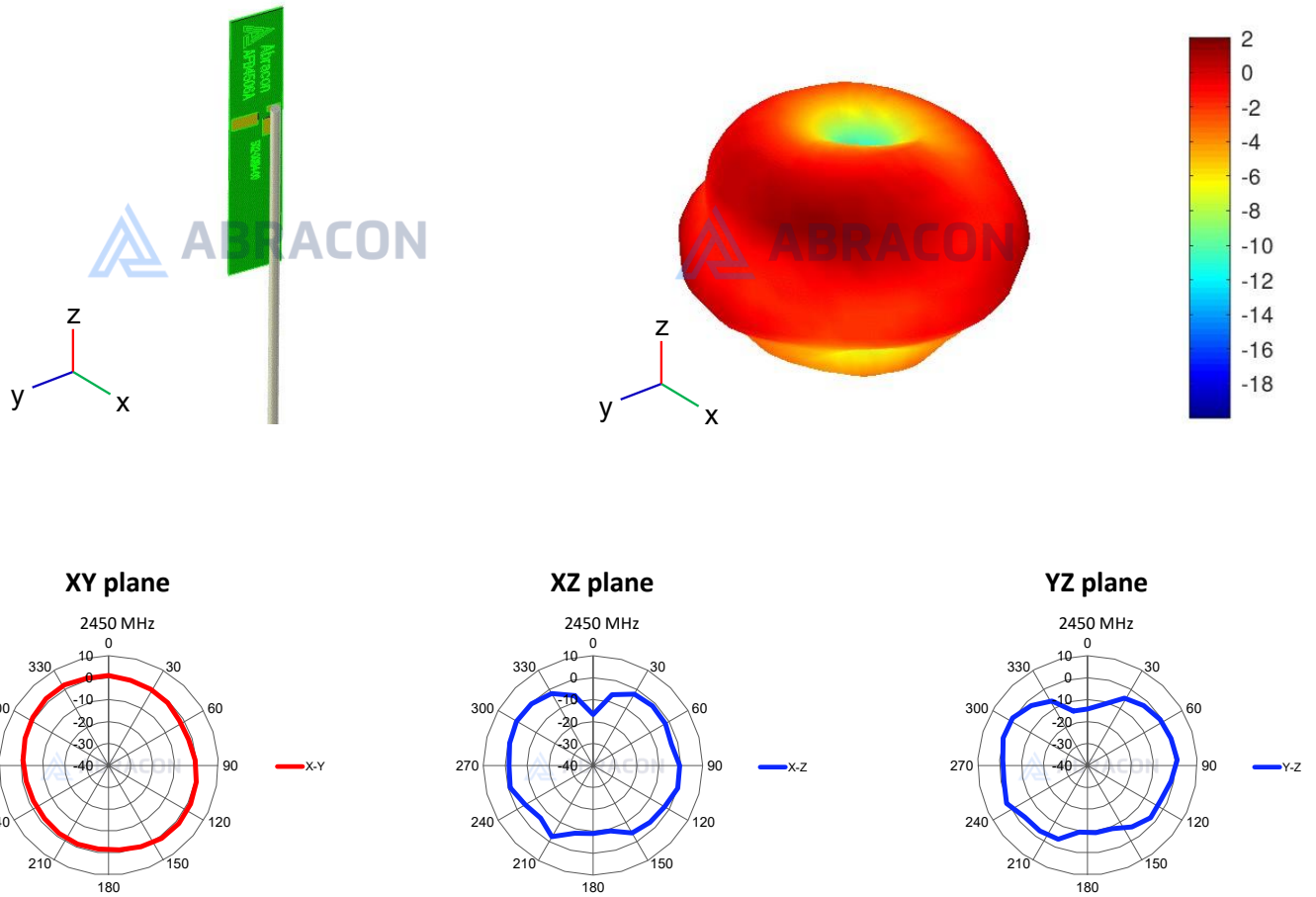
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Radiation Characteristics

3D & 2D Pattern @ 2450 MHz



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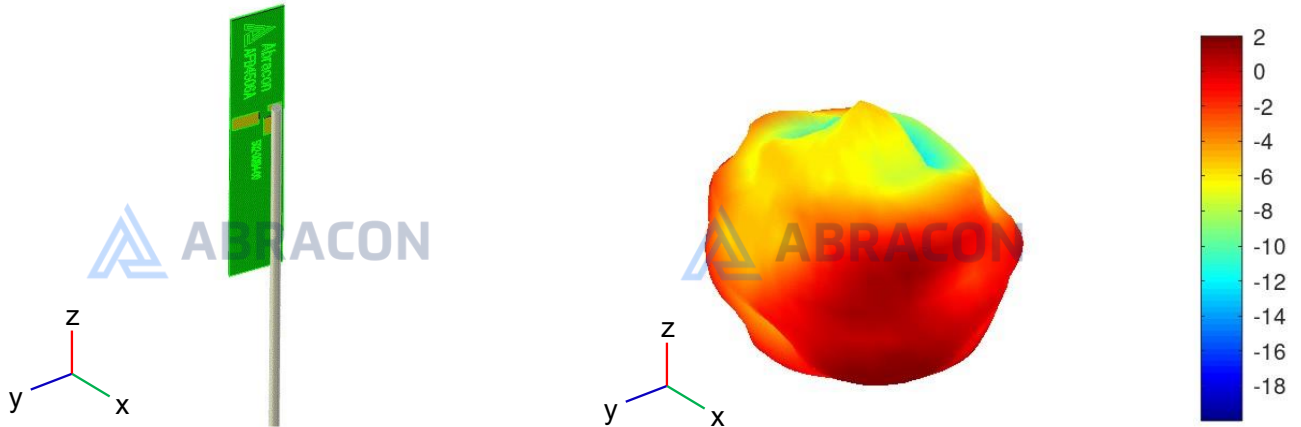


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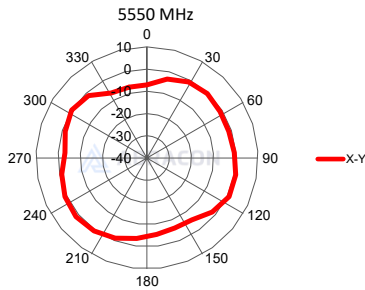


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RoHS Compliant
MSL Level = N/A

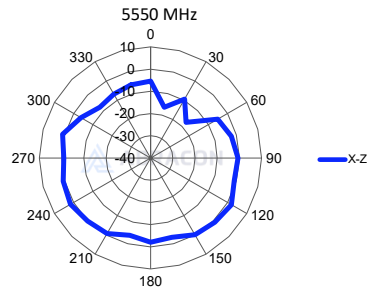
3D & 2D Pattern @ 5550 MHz



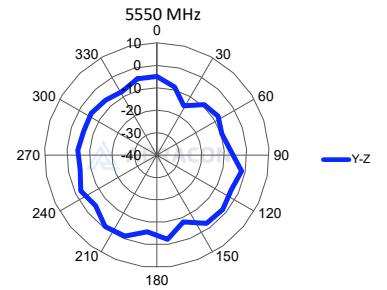
XY plane



XZ plane



YZ plane



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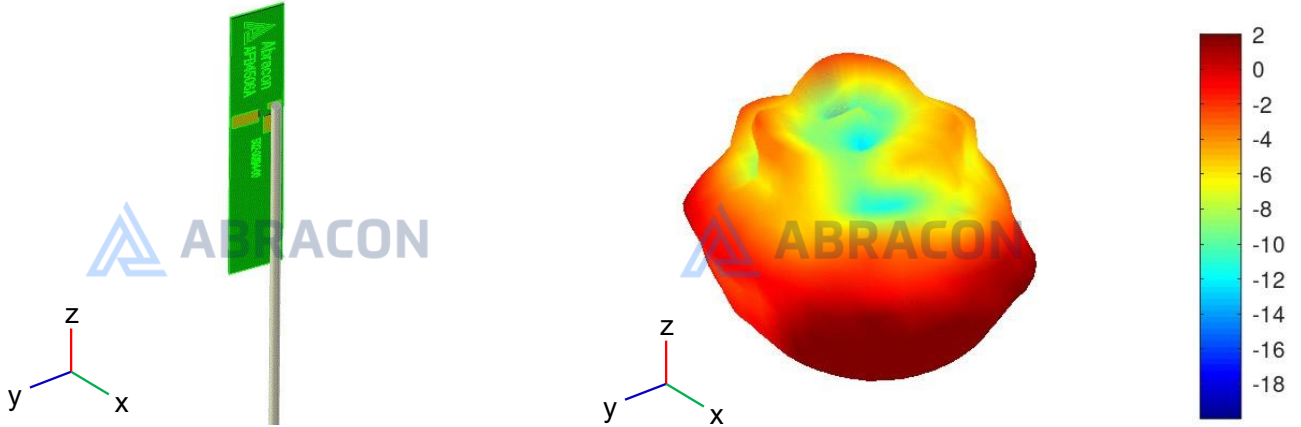


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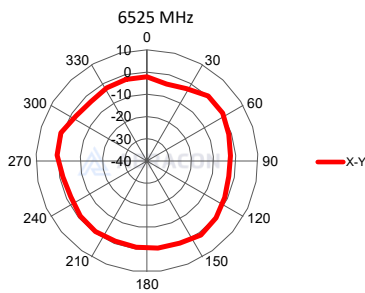


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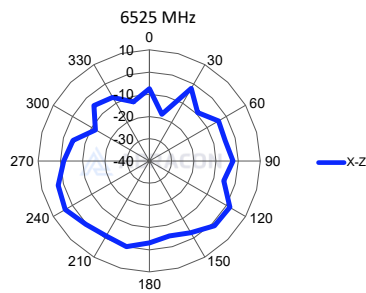
3D & 2D Pattern @ 6525 MHz



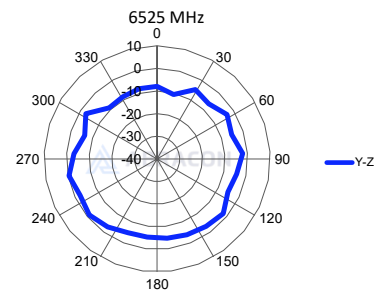
XY plane



XZ plane



YZ plane



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Packaging Information

Number of antennas / PE bag: 50 pcs

Number of PE bags / carton: 40

Total antennas / carton: 2000 pcs

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