

Wi-Fi 6/6E/7 External Whip Antenna



AANE-WH-0149

Request Samples



Check Inventory



Ø 8.3 x 50 mm

RoHS/RoHS II Compliant

MSL Level = N/A

Features

- High Efficiency Up to 62%
- High Peak Gain 2.2dBi ~ 3.2dBi
- SMA Connector Design for Straight Positioning
- Weatherproof and IP65 Rated Optional
- RP-SMA Plug or SMA Plug Connector

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
- Smart Irrigation and Pool Control

Product Image



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Electrical Specification

Parameter	Specification			Unit
Operating Frequency	2400-2500	5150-5850	5925-7125	MHz
VSWR (Typ.)	< 2.0	< 2.5	< 3.5	
Return Loss (Typ.)	> 10	> 6	> 5	dB
Peak Gain ⁽¹⁾	2.2	3.2	2.7	dBd
Efficiency (Max.) ⁽¹⁾	62	50	43	%
Efficiency (Avg.) ⁽¹⁾	60	43	40	%
Impedance	50			Ω
Polarization	Linear			
Radiation Pattern (Azimuth)	Omni-directional			
Input Power (Ambient 25°C)	5			W

(1): Measured with 120 x 90 mm ground plate

Mechanical Specification

Parameter	Specification
Dimensions	Ø 8.3 x 50 mm
Material	TPEE ⁽¹⁾
Recommended Torque for Mounting	0.565 N·m
Color	Black
Antenna Type	Whip (Monopole)
RF Connector ⁽²⁾	RP-SMA(M)

(1): UV Resistant optional

(2): RF Connector optional

Environmental Specification

Parameter	Specification
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
IP Rating ⁽¹⁾	IP65
RoHS Complaint	Yes

(1): IP Rating optional



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Ordering Information

Part Number	Description	Connector Option
AANE-WH-0149-RIP	Wi-Fi 6/6E/7 External Whip Antenna with RP-SMA(M) connector & IP rating	RP-SMA(M)
AANE-WH-0149-SIP	Wi-Fi 6/6E/7 External Whip Antenna with SMA(M) connector & IP rating	SMA(M)
AANE-WH-0149-R	Wi-Fi 6/6E/7 External Whip Antenna with RP-SMA(M) connector	RP-SMA(M)
AANE-WH-0149-S	Wi-Fi 6/6E/7 External Whip Antenna with SMA(M) connector	SMA(M)

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



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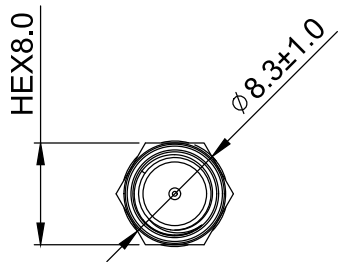
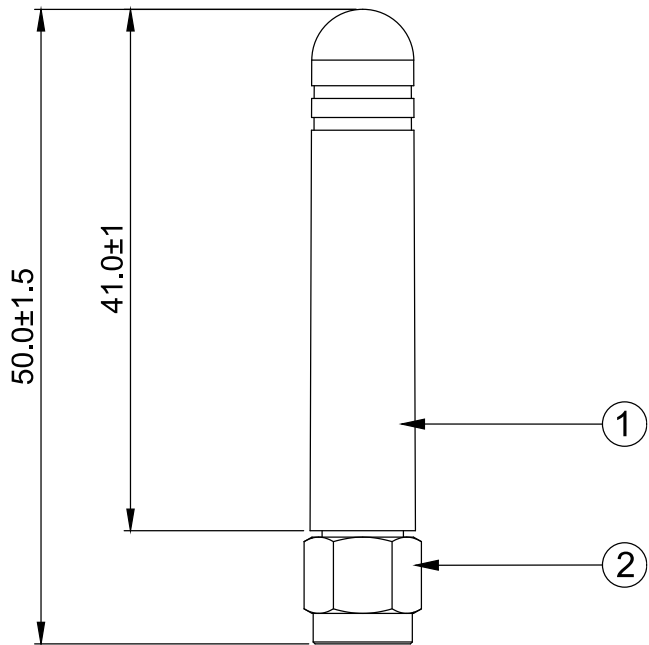


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Ø 8.3 x 50 mm
RoHS/RoHS II Compliant
MSL Level = N/A

Product Dimensions



Unit : mm

No.	Name	Material	Finish
1	Body	TPEE	Black
2	Connector	RP-SMA(M)	Au Plated

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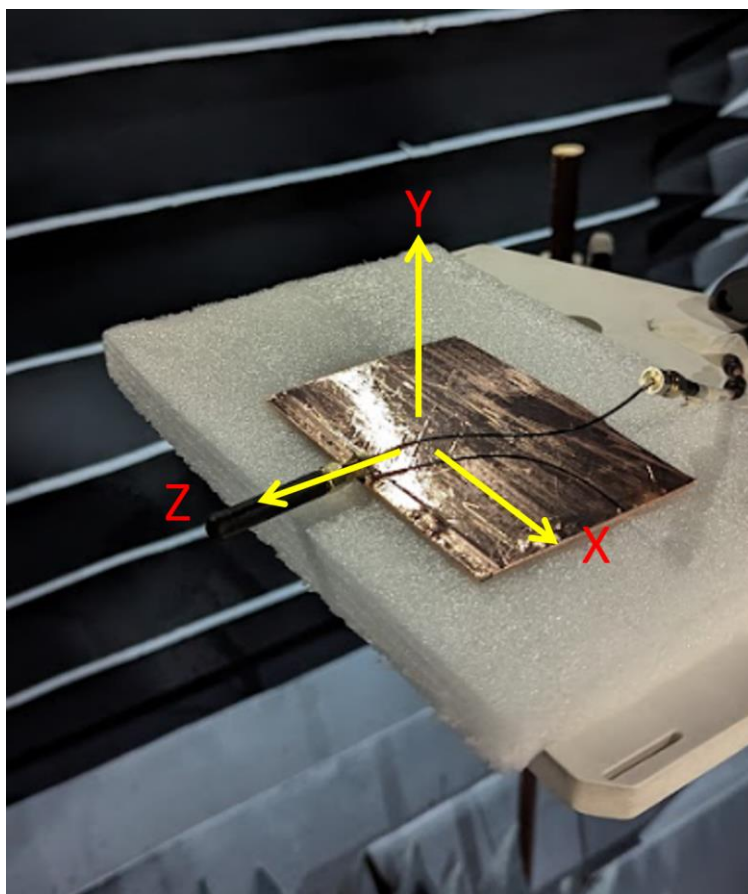


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Measurement Setup



Ground plate size: 120 x 90 mm

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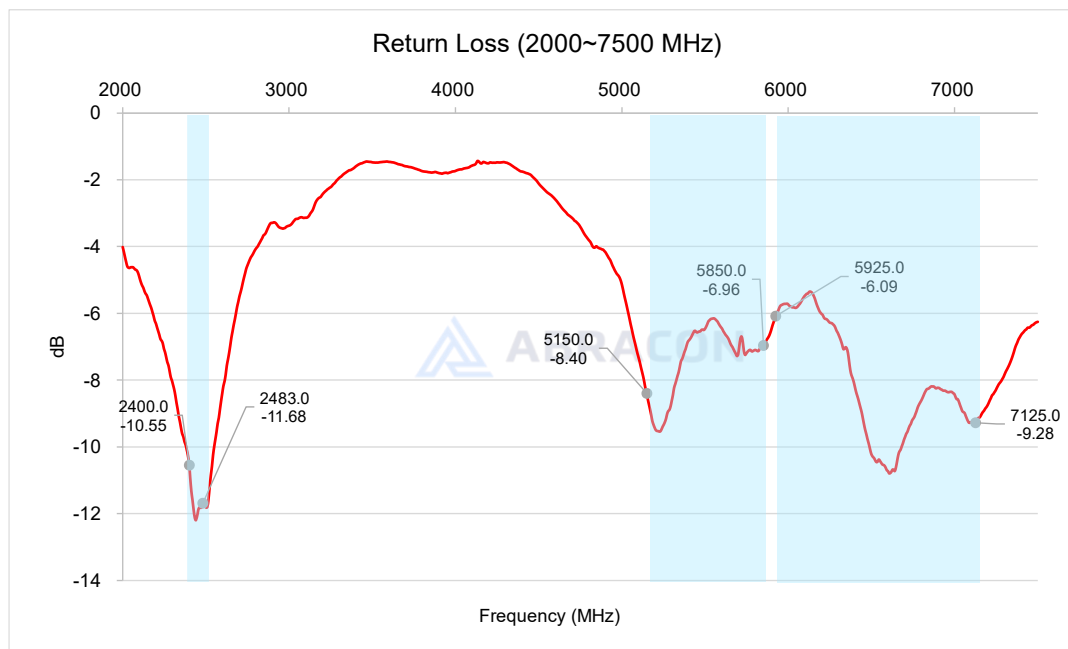
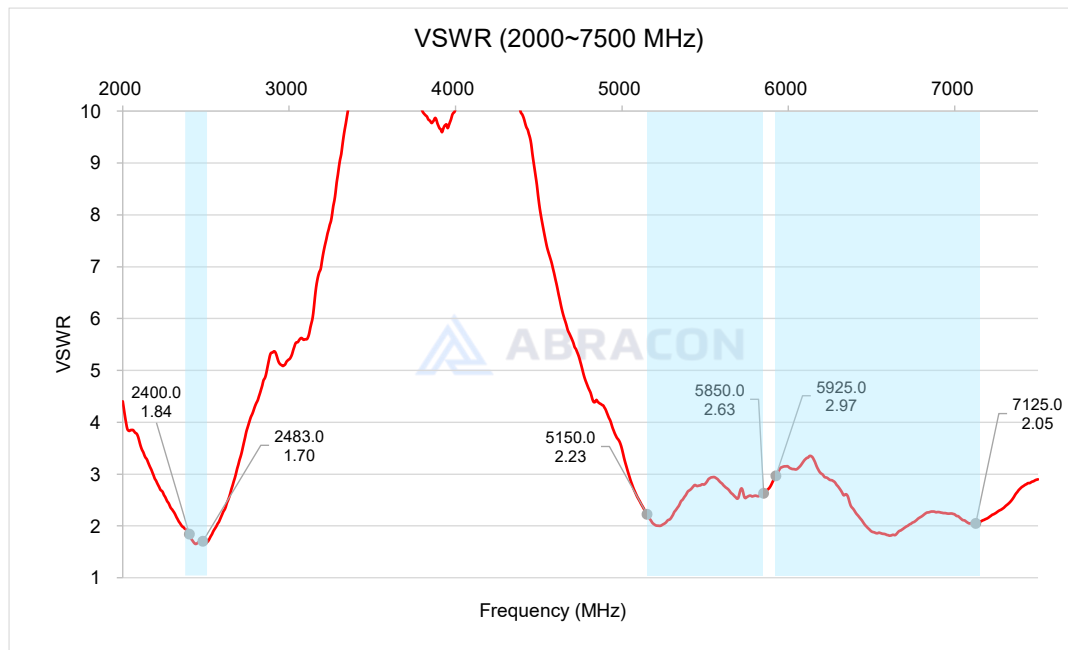


Ø 8.3 x 50 mm

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MSL Level = N/A

Reflection Characteristics – Return Loss & VSWR



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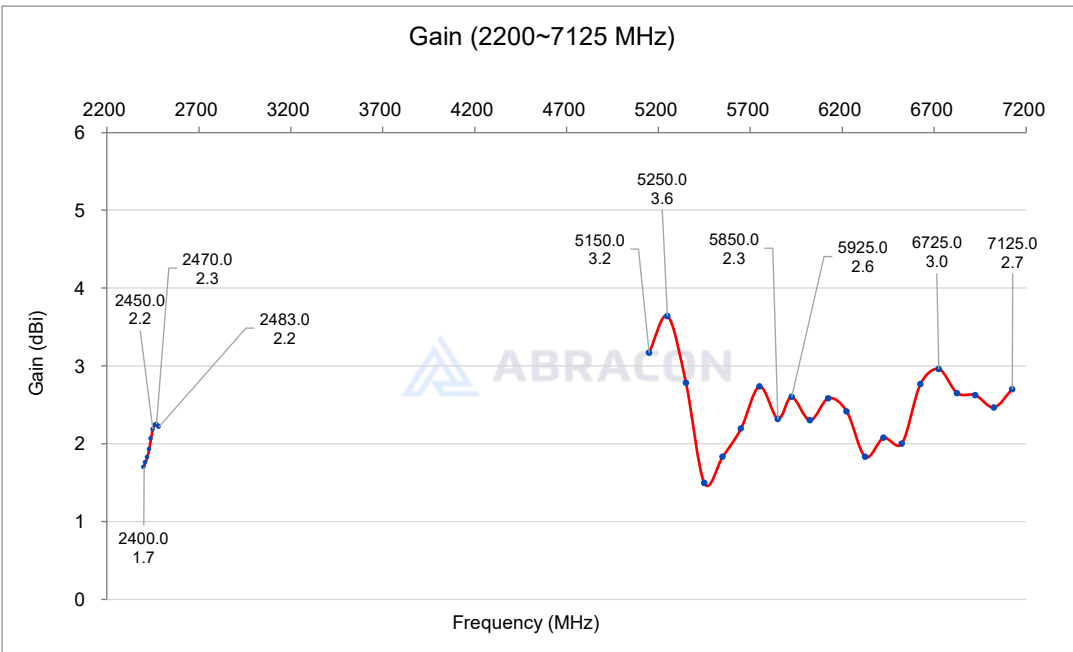


Ø 8.3 x 50 mm

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Radiation Characteristics – Peak Gain



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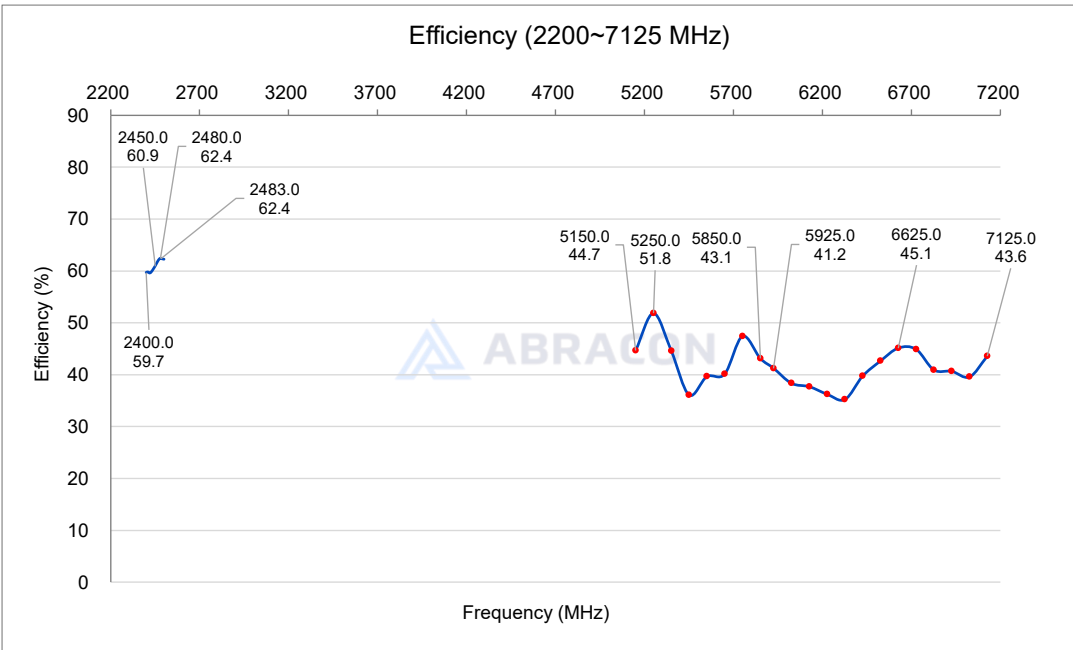


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Radiation Characteristics – Total Efficiency (%)



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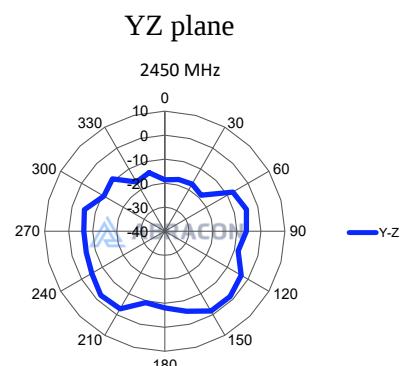
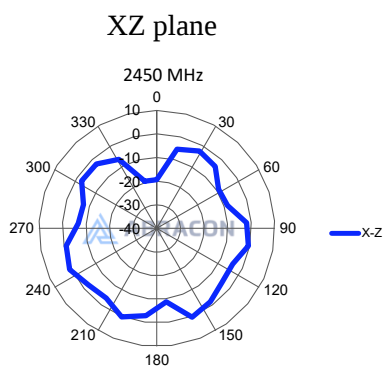
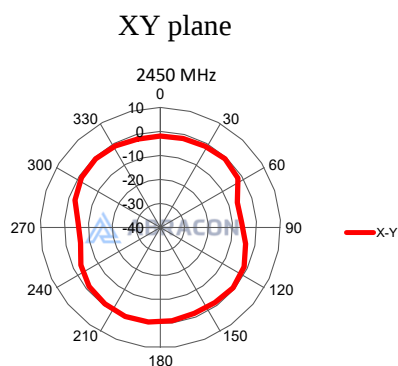
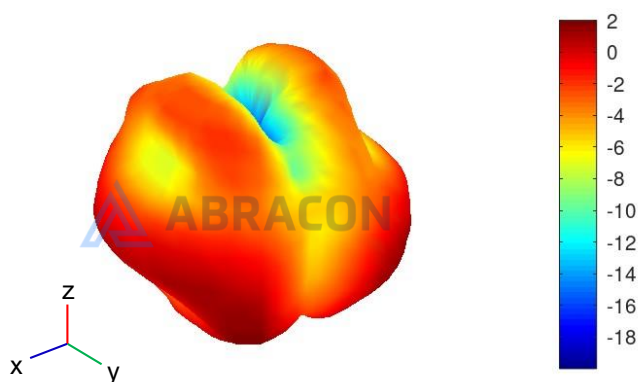
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Radiation Characteristics – 3D Pattern

2450MHz



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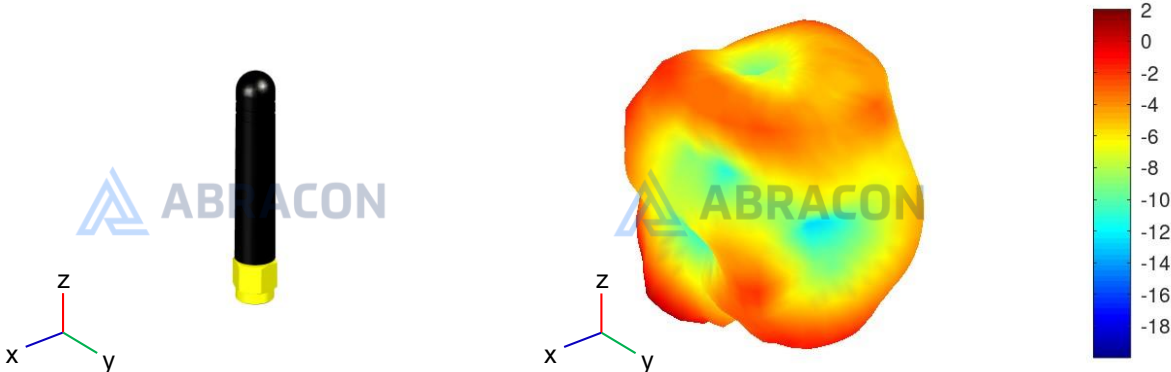


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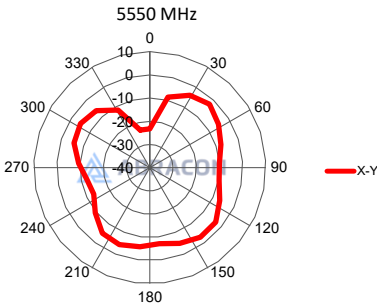
RoHS/RoHS II Compliant

MSL Level = N/A

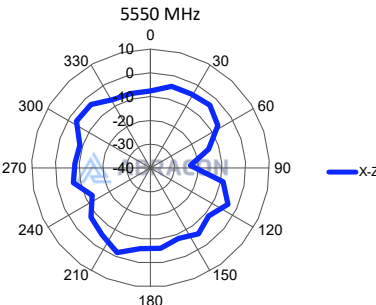
5550MHz



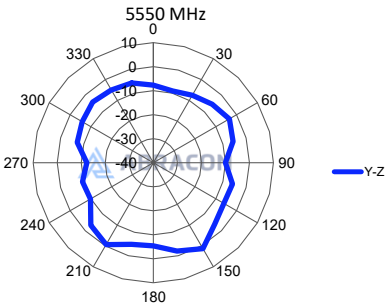
XY plane



XZ plane



YZ plane



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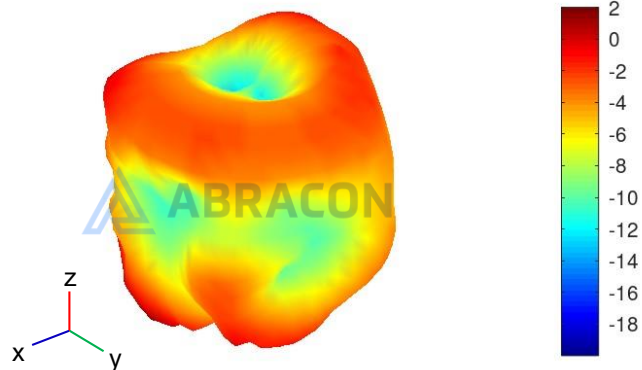


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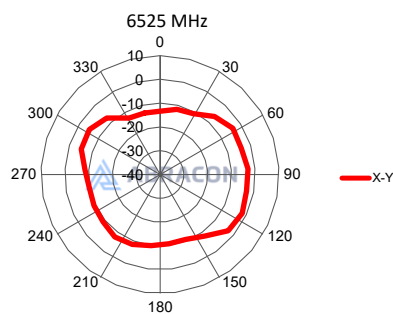
RoHS/RoHS II Compliant

MSL Level = N/A

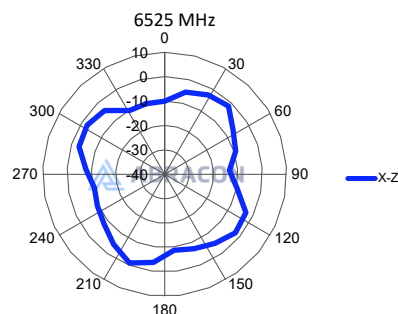
6525MHz



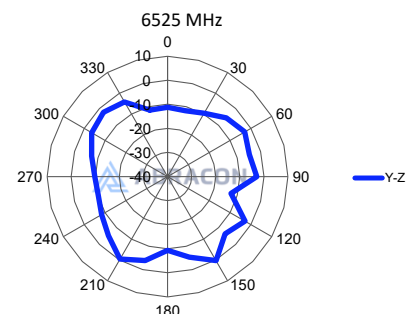
XY plane



XZ plane



YZ plane



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Packaging

Number of antennas / PE bag: 50 pcs

Number of PE bags / carton: 10

Total antennas / carton: 500 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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