

# Wi-Fi 5/6/6E/7 External Whip Antenna



**AANE-BL-0064**

Request Samples



Check Inventory



196.3 x 21.5 mm

RoHS/RoHS II Compliant

MSL Level = N/A

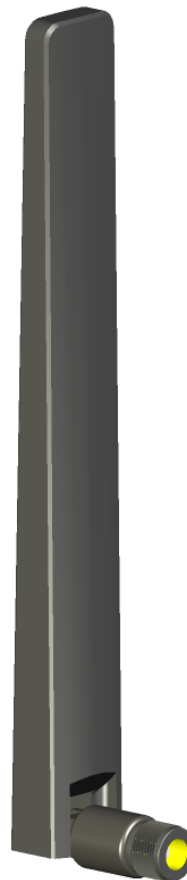
## Features

- High efficiency up to 63%
- High peak gain 2.5 / 4.3 / 4.5 dBi @ 2.4 / 5.5 / 6 GHz
- Swivel connector design for straight, right-angle and 45 degree positioning
- SMA plug (male pin) or RP-SMA plug (female socket) connector

## Applications

- Wi-Fi Pool Controller and Smart Irrigation
- 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

## Product Image



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## Electrical Specification

| Parameter                   | Specification    |           |           | Unit     |
|-----------------------------|------------------|-----------|-----------|----------|
| Operating Frequency         | 2400-2500        | 5150-5850 | 5925-7125 | MHz      |
| VSWR (Typ.)                 | < 2.0            |           |           |          |
| Return Loss                 | > 10             |           |           | dB       |
| Peak Gain                   | 2.5              | 4.3       | 4.5       | dBi      |
| Efficiency (Maximum)        | 63               | 60        | 62        | %        |
| Impedance                   | 50               |           |           | $\Omega$ |
| Polarization                | Linear           |           |           |          |
| Radiation Pattern (Azimuth) | Omni-directional |           |           |          |
| Input Power (Ambient 25°C)  | 5                |           |           | W        |

## Mechanical Specification

| Parameter                       | Specification                 |
|---------------------------------|-------------------------------|
| Dimensions                      | 196.3 x 21.5 mm               |
| Material                        | ABS / PC / PBT <sup>(1)</sup> |
| Recommended Torque for Mounting | 0.565 N·m                     |
| Color                           | Black                         |
| Antenna Type                    | Blade (Dipole)                |
| RF Connector                    | RP-SMA(M)                     |

(1): UV Resistant optional

## Environmental Specification

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



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## Ordering Information

| Part Number    | Description                                                   | Connector Option |
|----------------|---------------------------------------------------------------|------------------|
| AANE-BL-0064-R | Wi-Fi 5/6/6E/7 External Whip Antenna with RP-SMA(M) connector | RP-SMA(M)        |
| AANE-BL-0064-S | Wi-Fi 5/6/6E/7 External Whip Antenna with SMA(M) connector    | SMA(M)           |



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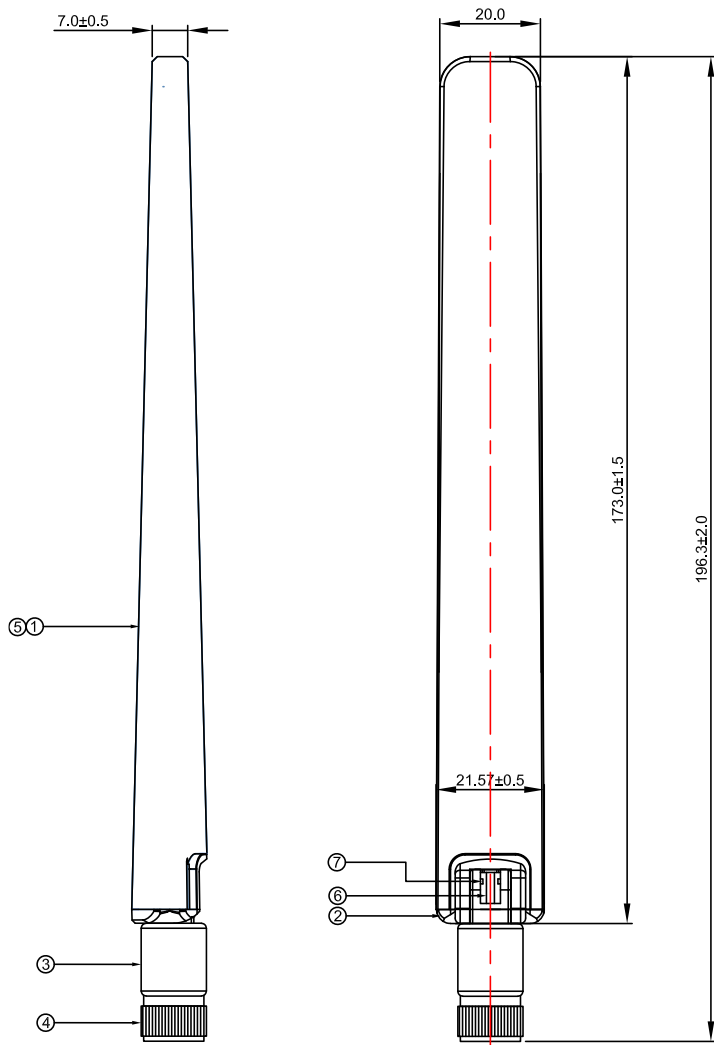


196.3 x 21.5 mm

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## Product Dimensions



Unit : mm

| No. | Name      | Material  | Finish           | Q'ty |
|-----|-----------|-----------|------------------|------|
| 1   | Body 1    | ABS       | Black            | 1    |
| 2   | Body 2    | ABS       | Black            | 1    |
| 3   | Body 3    | PC / PBT  | Black            | 1    |
| 4   | Connector | RP-SMA(M) | NI Plated; Black | 1    |
| 5   | PCB       | FR4       | Black            | 1    |
| 6   | Cable     | RG-178    | Brown            | 1    |
| 7   | Rivet     | POM       | Black            | 2    |

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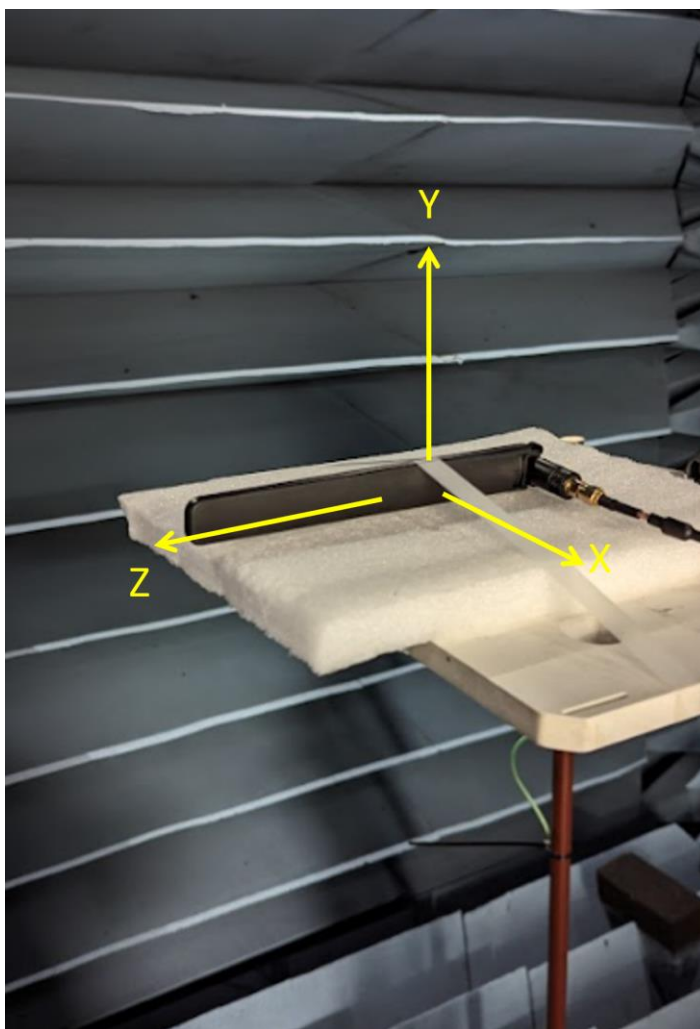


196.3 x 21.5 mm

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## Measurement Setup



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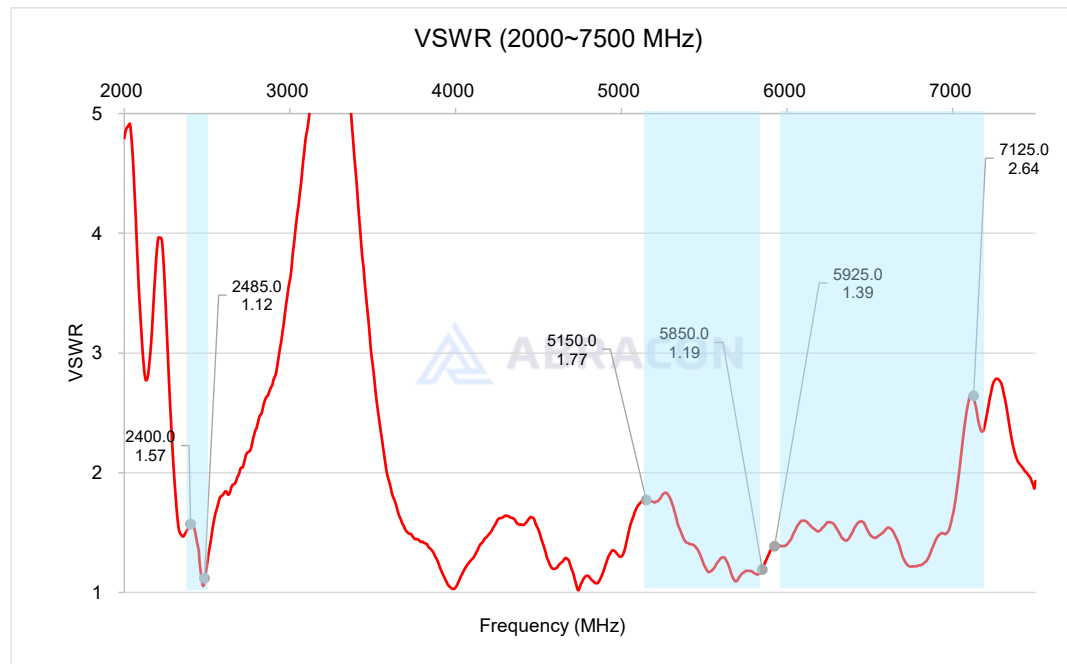
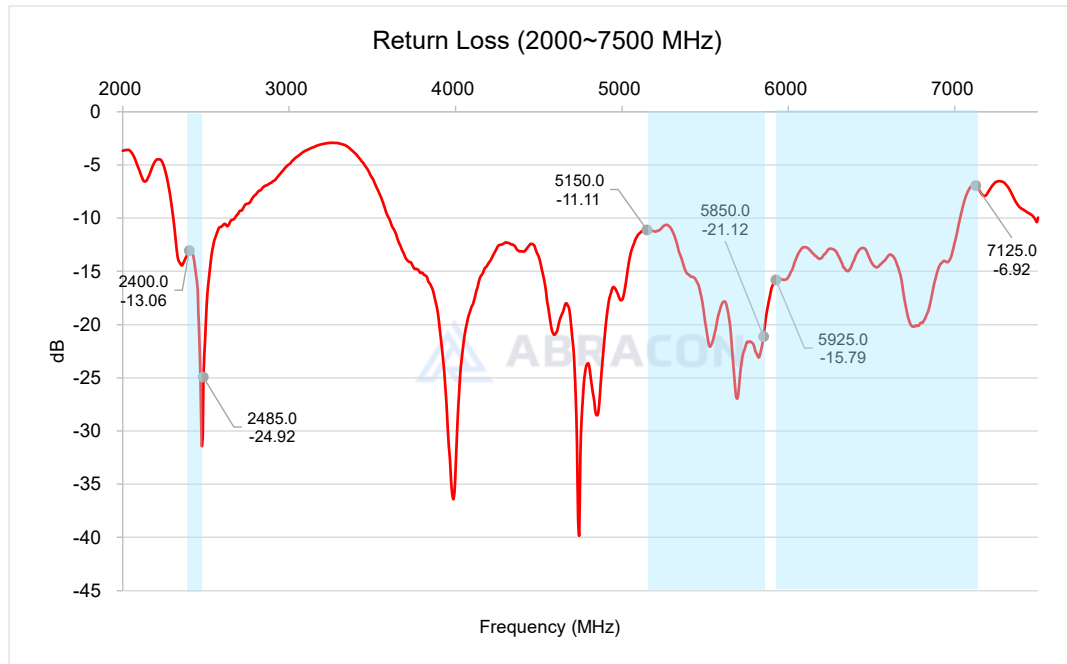


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## Reflection Characteristics – Return Loss & VSWR



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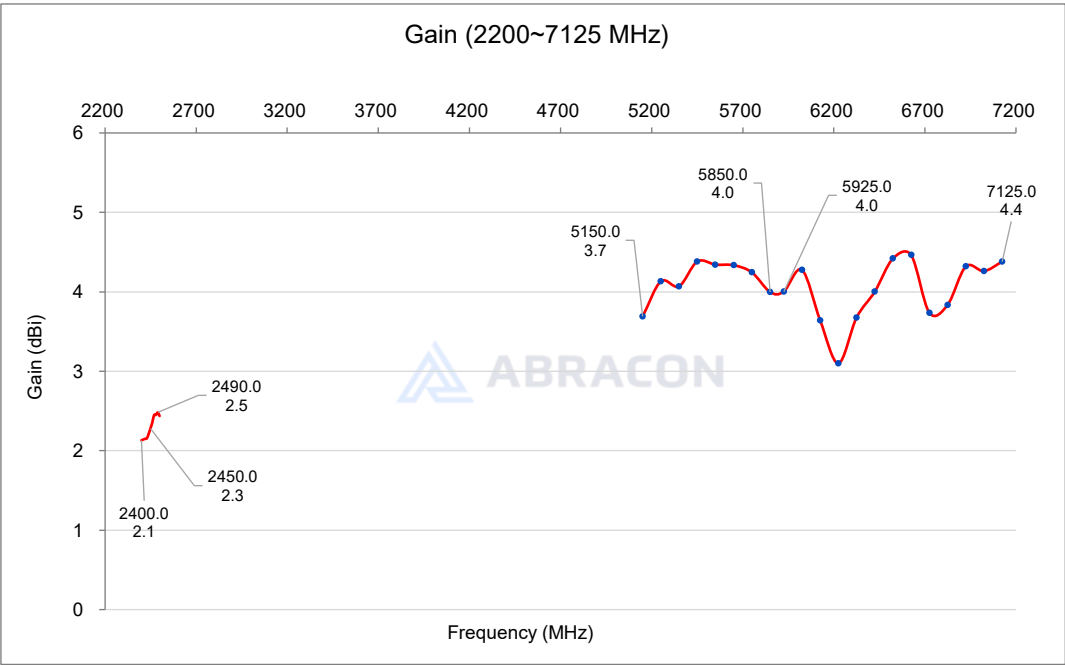


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## Radiation Characteristics – Peak Gain



| Frequency (MHz) | 2400 | 2450 | 2490 | 5150 | 5450 | 5850 | 5925 | 6225 | 6625 | 7125 |
|-----------------|------|------|------|------|------|------|------|------|------|------|
| Peak Gain (dBi) | 2.1  | 2.3  | 2.5  | 3.7  | 4.4  | 4.0  | 4.0  | 3.1  | 4.5  | 4.4  |



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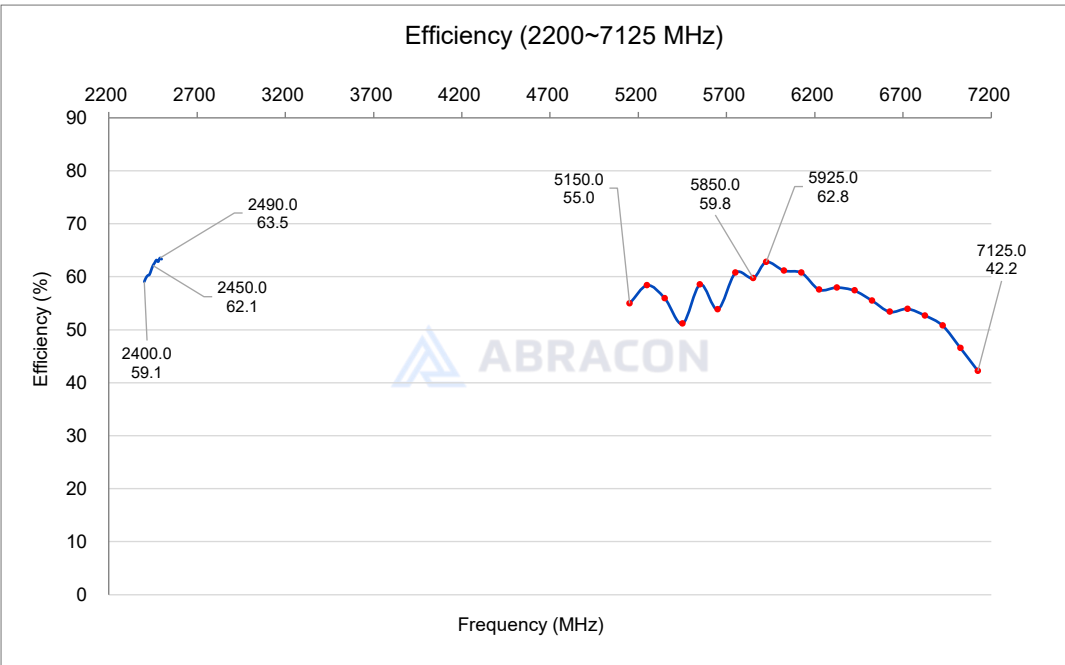


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## Radiation Characteristics – Total Efficiency (%)



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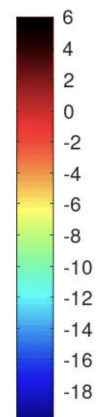
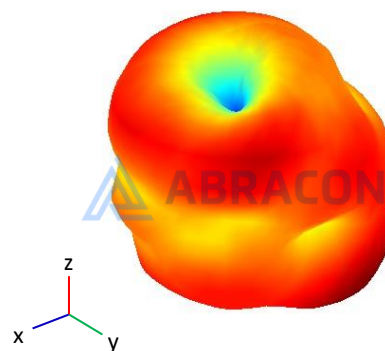
196.3 x 21.5 mm

RoHS/RoHS II Compliant

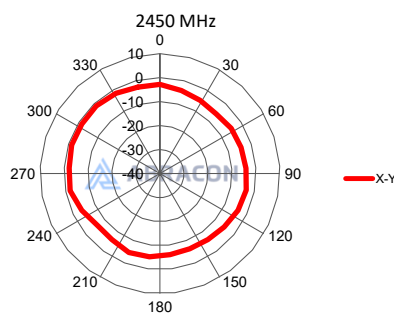
MSL Level = N/A

## Radiation Characteristics –3D & 2D Pattern

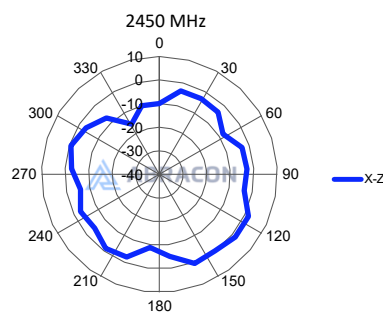
2450MHz



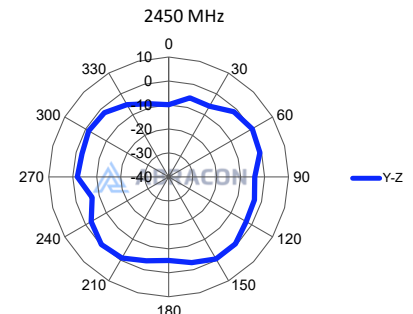
XY plane



XZ plane



YZ plane



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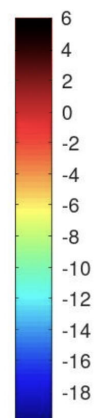
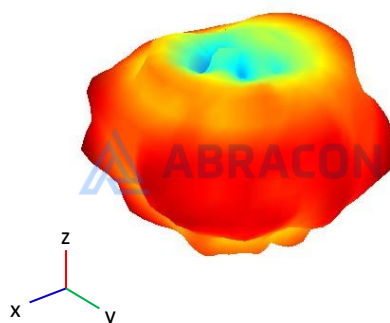


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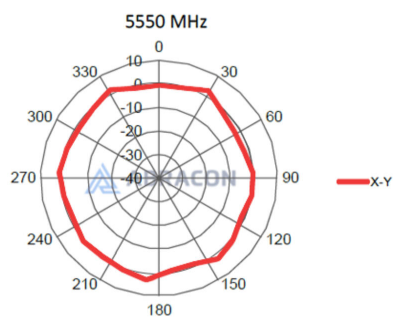
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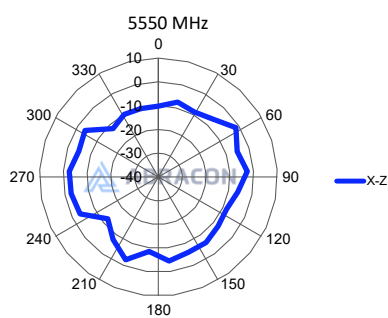
5550MHz



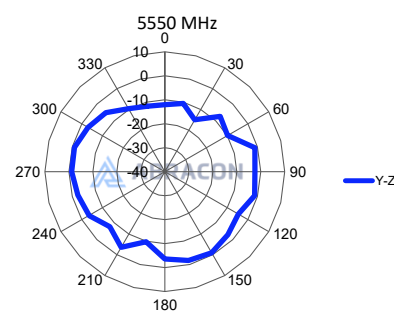
XY plane



XZ plane



YZ plane



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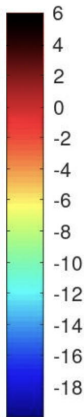
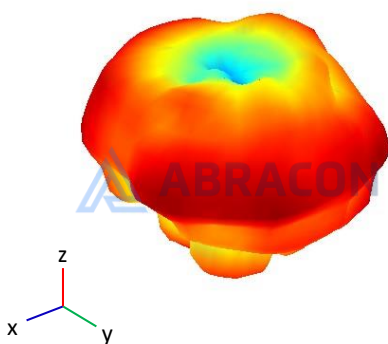


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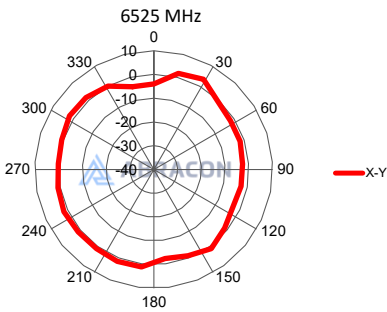


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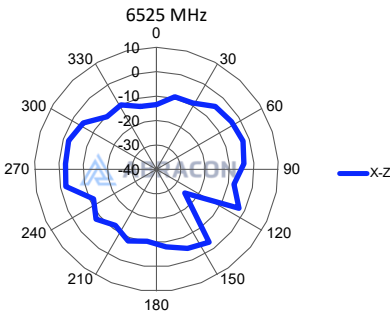
6525MHz



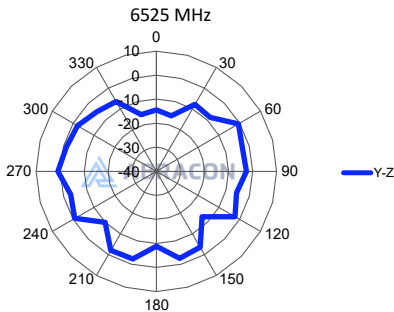
XY plane



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

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