

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



**AANE-WH-0148**

Request Samples



Check Inventory



Ø 13 x 157 mm

RoHS/RoHS II Compliant

MSL Level = N/A

## Features

- High Efficiency Up to 86%
- High Peak Gain 3dBi ~ 5dBi
- Swivel Connector Design for Straight, Right-Angle and 45-Degree 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



5101 Hidden Creek Ln Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 08-29-24

ABRACON IS  
ISO9001-2015  
CERTIFIED

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



AANE-WH-0148

Request Samples



Check Inventory



Ø 13 x 157 mm

RoHS/RoHS II Compliant

MSL Level = N/A

## Electrical Specification

| Parameter                   | Specification    |           |           | Unit |
|-----------------------------|------------------|-----------|-----------|------|
| Operating Frequency         | 2400-2500        | 5150-5850 | 5925-7125 | MHz  |
| VSWR (Typ.)                 | < 2.0            |           |           |      |
| Return Loss (Typ.)          | > 10             |           |           | dB   |
| Peak Gain                   | 3.7              | 4.1       | 5.3       | dBi  |
| Efficiency (Max.)           | 75               | 60        | 86        | %    |
| Efficiency (Avg.)           | 73               | 57        | 77        | %    |
| Impedance                   | 50               |           |           | Ω    |
| Polarization                | Linear           |           |           |      |
| Radiation Pattern (Azimuth) | Omni-directional |           |           |      |
| Input Power (Ambient 25°C)  | 5                |           |           | W    |

Please note: All measurement data is based on the standard configuration (conducted in free space unless otherwise specified).

## Mechanical Specification

| Parameter                       | Specification             |
|---------------------------------|---------------------------|
| Dimensions                      | Ø 13 x 157 mm             |
| Material                        | TPEE + ABS <sup>(1)</sup> |
| Recommended Torque for Mounting | 0.565 N·m                 |
| Color                           | Black                     |
| Antenna Type                    | Whip (Dipole)             |
| RF Connector <sup>(2)</sup>     | 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 <sup>(1)</sup> | IP65           |
| RoHS Complaint           | Yes            |

(1): IP Rating optional



5101 Hidden Creek Ln Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 08-29-24

ABRACON IS  
ISO9001-2015  
CERTIFIED

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



**AANE-WH-0148**

Request Samples



Check Inventory



Ø 13 x 157 mm

RoHS/RoHS II Compliant

MSL Level = N/A

## Ordering Information

| Part Number      | Description                                                                        | Connector Option |
|------------------|------------------------------------------------------------------------------------|------------------|
| AANE-WH-0148-RIP | Wi-Fi 6/6E/7 External Waterproof Whip Antenna with RP-SMA(M) connector & IP rating | RP-SMA(M)        |
| AANE-WH-0148-SIP | Wi-Fi 6/6E/7 External Waterproof Whip Antenna with SMA(M) connector & IP rating    | SMA(M)           |
| AANE-WH-0148-R   | Wi-Fi 6/6E/7 External Waterproof Whip Antenna with RP-SMA(M) connector             | RP-SMA(M)        |
| AANE-WH-0148-S   | Wi-Fi 6/6E/7 External Waterproof 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](#)



5101 Hidden Creek Ln Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 08-29-24

ABRACON IS  
ISO9001-2015  
CERTIFIED

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



AANE-WH-0148

Request Samples



Check Inventory

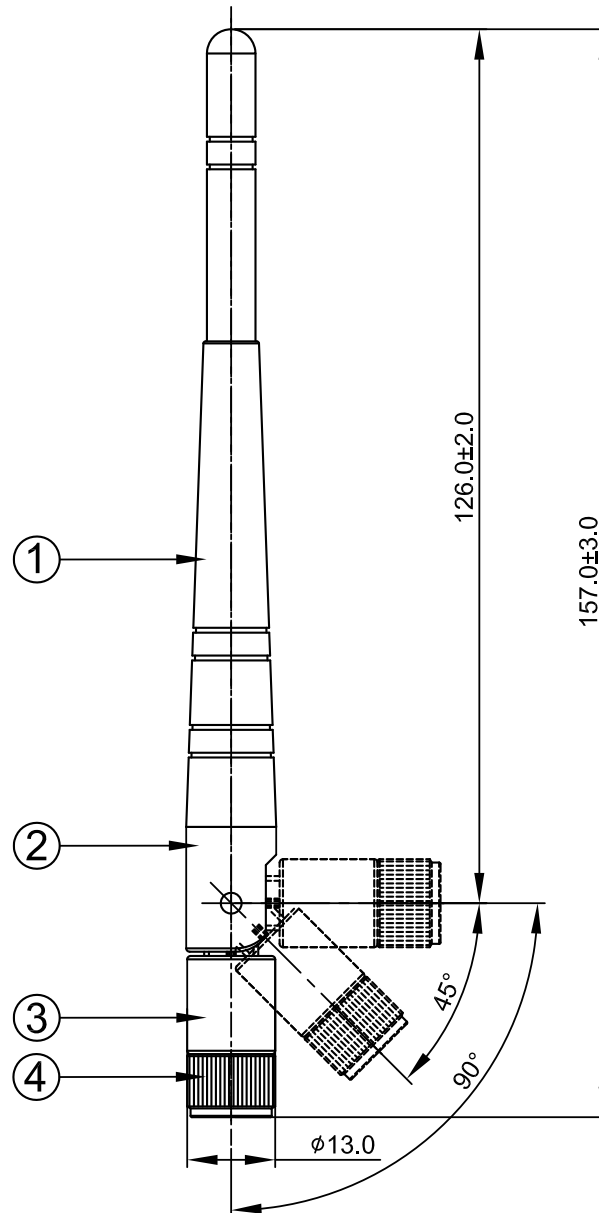


Ø 13 x 157 mm

RoHS/RoHS II Compliant

MSL Level = N/A

## Product Dimensions



Unit : mm

| No. | Name       | Material | Finish |
|-----|------------|----------|--------|
| 1   | Body 1     | TPEE     | Black  |
| 2   | Body 2     | ABS      | Black  |
| 3   | Body 3     | ABS      | Black  |
| 4   | RP-SMA (M) | Copper   | Black  |



5101 Hidden Creek Ln Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 08-29-24

ABRACON IS  
ISO9001-2015  
CERTIFIED

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



AANE-WH-0148

Request Samples



Check Inventory

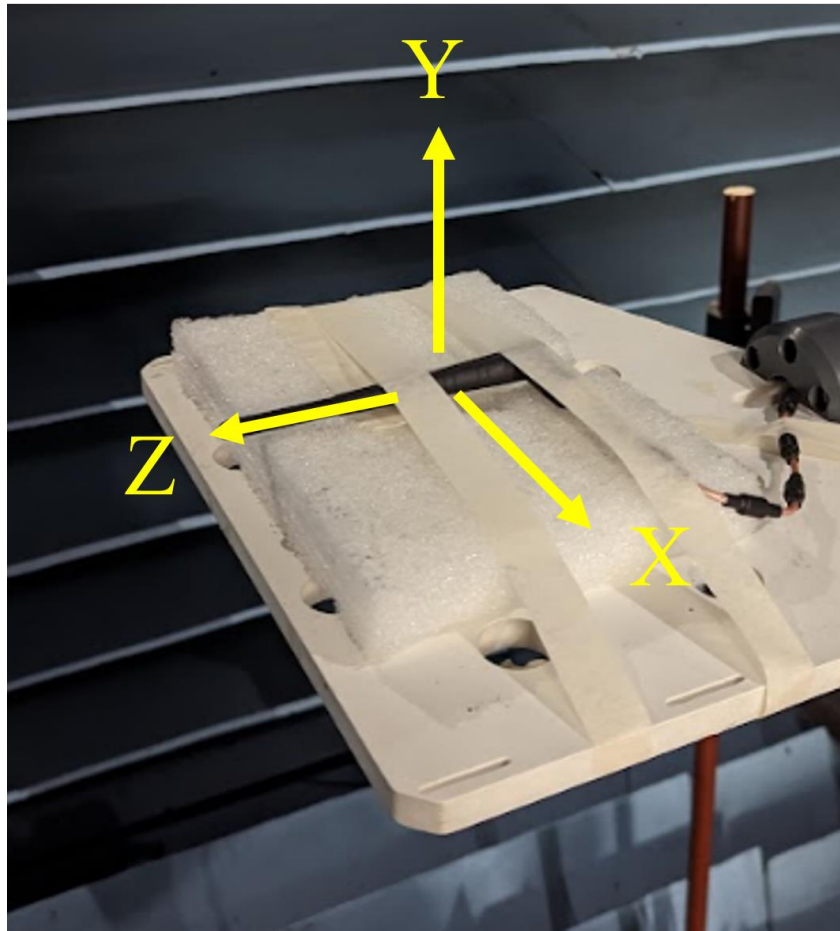


Ø 13 x 157 mm

RoHS/RoHS II Compliant

MSL Level = N/A

## Measurement Setup



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



AANE-WH-0148

Request Samples



Check Inventory

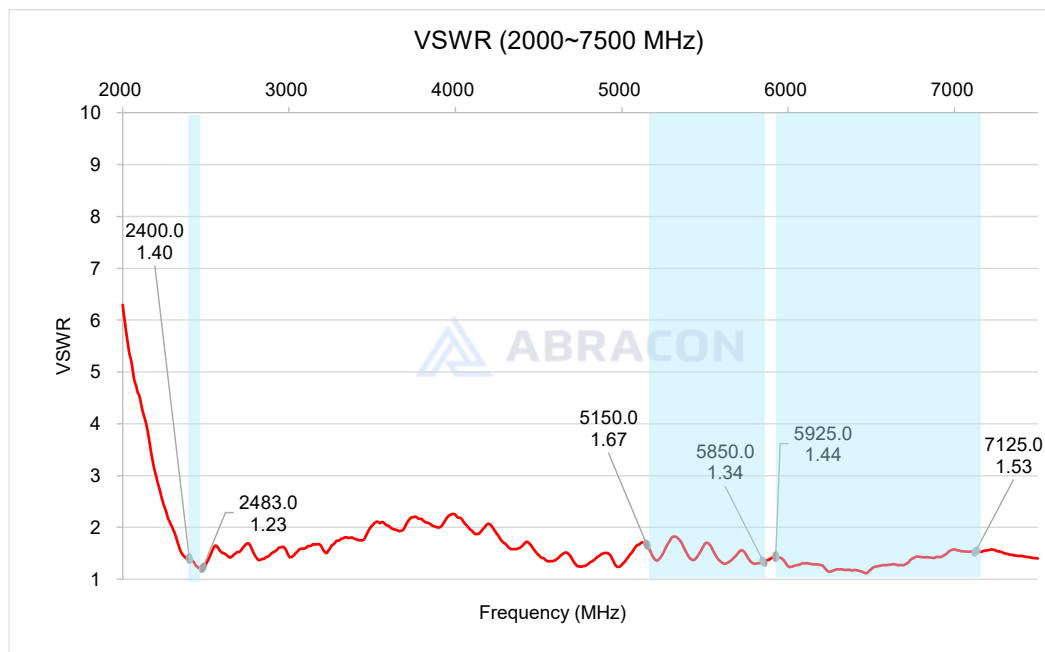
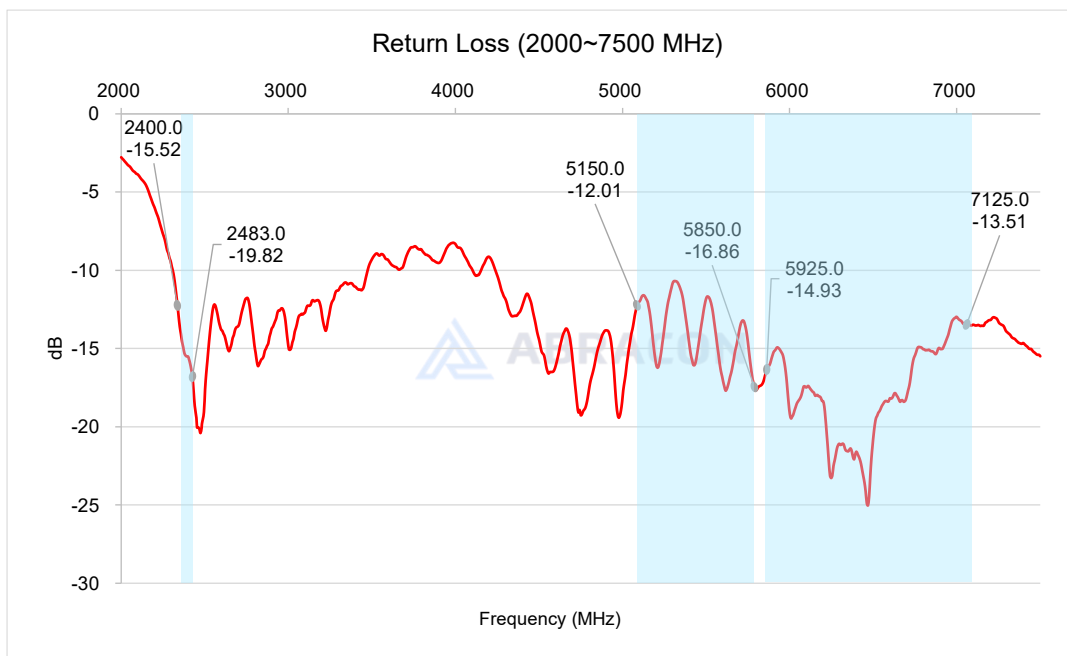


Ø 13 x 157 mm

RoHS/RoHS II Compliant

MSL Level = N/A

## Reflection Characteristics – Return Loss & VSWR



5101 Hidden Creek Ln Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 08-29-24

ABRACON IS  
ISO9001-2015  
CERTIFIED

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



**AANE-WH-0148**

Request Samples



Check Inventory

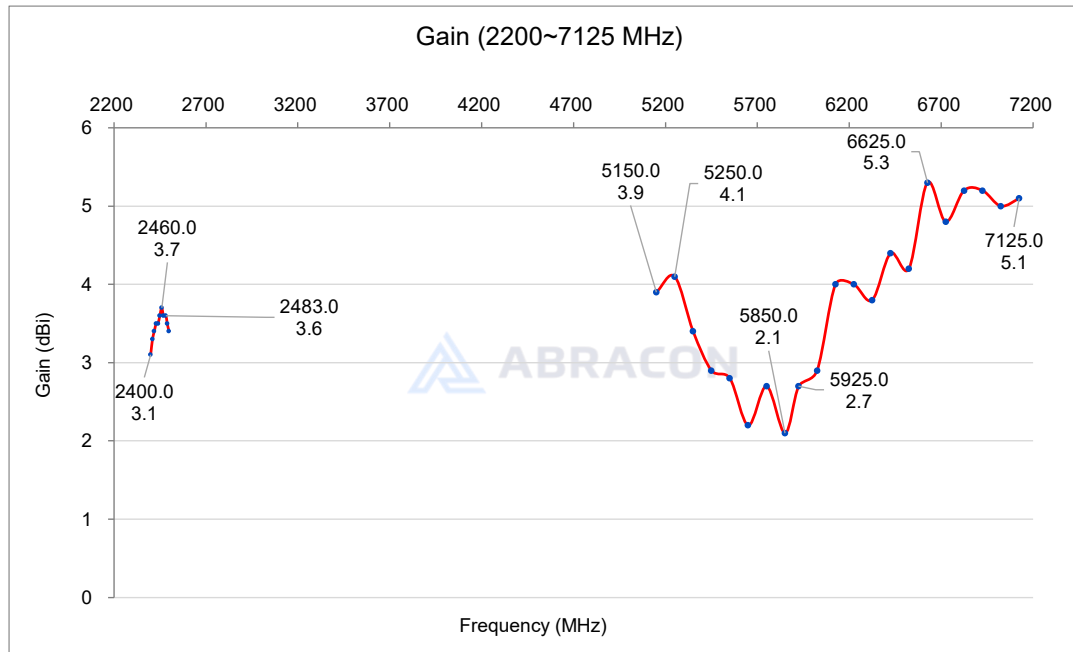


Ø 13 x 157 mm

RoHS/RoHS II Compliant

MSL Level = N/A

## Radiation Characteristics – Peak Gain



5101 Hidden Creek Ln Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 08-29-24

ABRACON IS  
ISO9001-2015  
CERTIFIED

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



AANE-WH-0148

Request Samples



Check Inventory

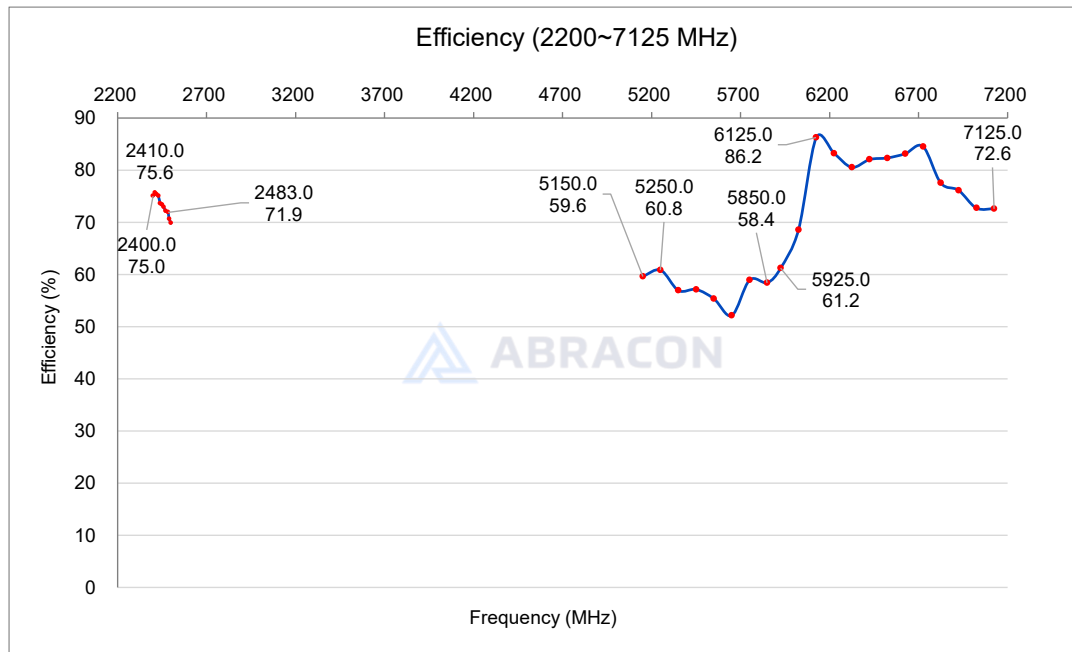


Ø 13 x 157 mm

RoHS/RoHS II Compliant

MSL Level = N/A

## Radiation Characteristics – Total Efficiency (%)



5101 Hidden Creek Ln Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 08-29-24

ABRACON IS  
ISO9001-2015  
CERTIFIED

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



AANE-WH-0148

Request Samples



Check Inventory



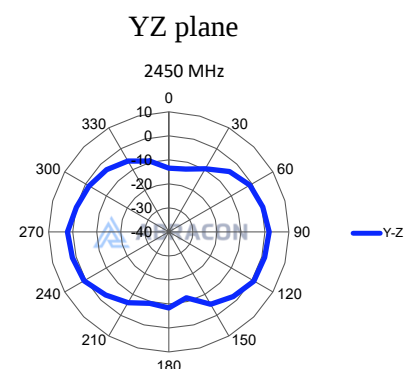
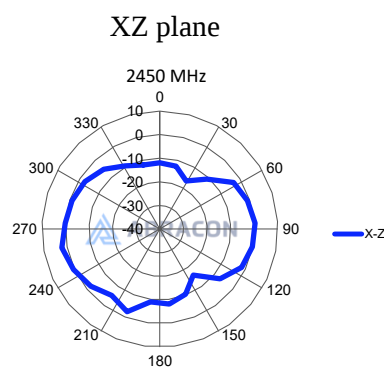
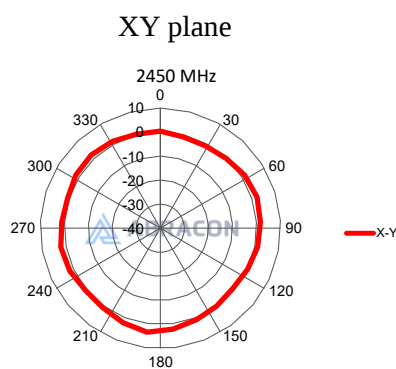
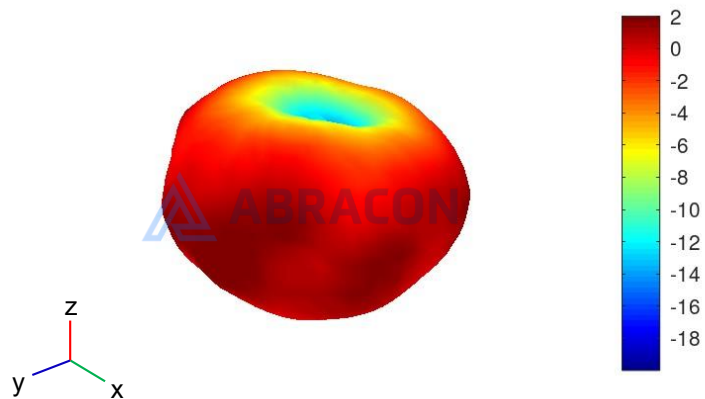
Ø 13 x 157 mm

RoHS/RoHS II Compliant

MSL Level = N/A

## Radiation Characteristics – 3D & 2D Pattern

2450MHz



5101 Hidden Creek Ln Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 08-29-24

ABRACON IS  
ISO9001-2015  
CERTIFIED

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



AANE-WH-0148

Request Samples



Check Inventory

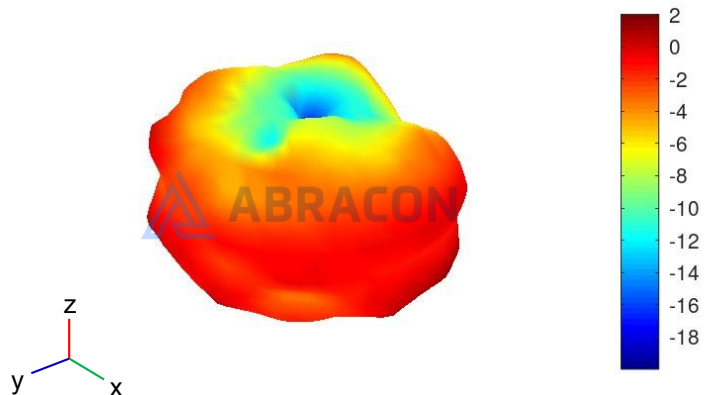


Ø 13 x 157 mm

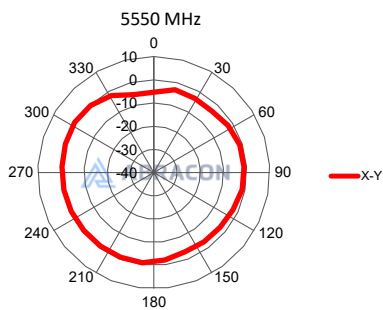
RoHS/RoHS II Compliant

MSL Level = N/A

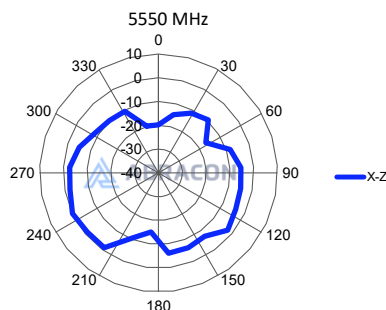
5550MHz



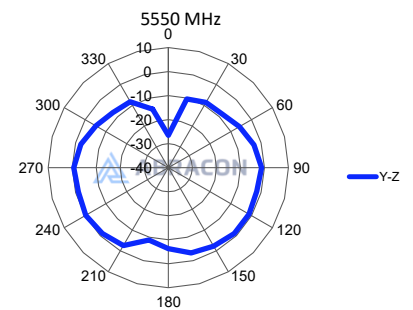
XY plane



XZ plane



YZ plane



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



AANE-WH-0148

Request Samples



Check Inventory

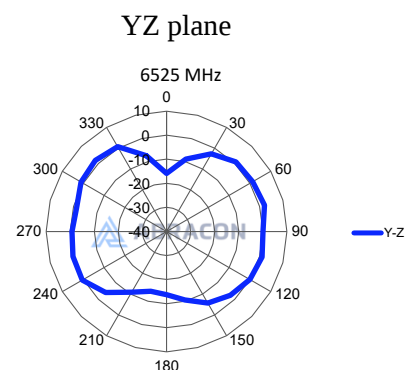
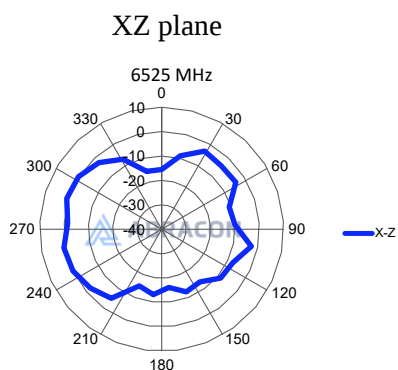
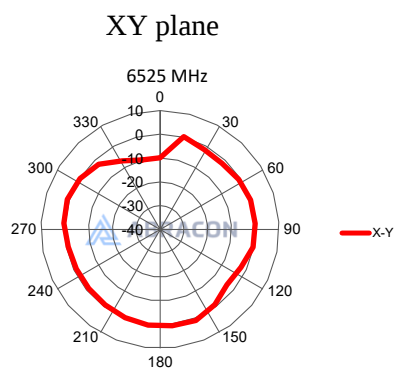
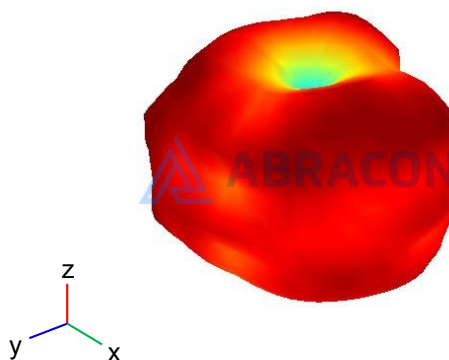


Ø 13 x 157 mm

RoHS/RoHS II Compliant

MSL Level = N/A

6525MHz



5101 Hidden Creek Ln Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 08-29-24

ABRACON IS  
ISO9001-2015  
CERTIFIED

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



**AANE-WH-0148**

Request Samples



Check Inventory



Ø 13 x 157 mm

**RoHS/RoHS II Compliant**

MSL Level = N/A

## 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.



5101 Hidden Creek Ln Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

**REVISED: 08-29-24**

ABRACON IS  
ISO9001-2015  
CERTIFIED