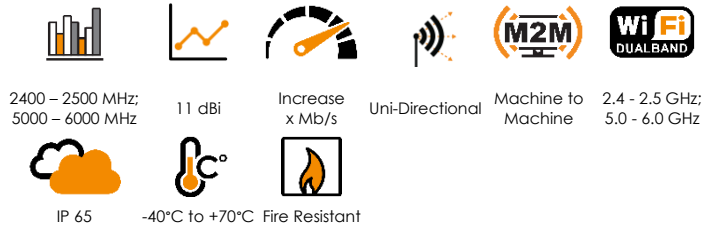


## ANTENNAS | WLAN-61 SERIES

# UNI-DIRECTIONAL, DUAL-BAND WI-FI ANTENNA

4x4 Wi-Fi (MIMO); 2400 - 2500 MHz, 9 dBi; 5000 - 6000 MHz, 11 dBi



- High performance directional 4X4 MIMO antenna
- Dual-band 2.4 GHz and 5 GHz Wi-Fi antenna
- Wide beamwidth for optimum coverage
- Robust design for vandal and dust resistance (IP 65)
- Easily mountable on pole



APPLICATION AREAS

## Product Overview

The WLAN-61 is a dual-band Wi-Fi MIMO antenna, developed by Poynting Antennas, can connect to any Wi-Fi access point whether it is older Wi-Fi technology or new dual-band Wi-Fi technology. Multiple dual-band antennas can resolve channel saturation and provide the ultimate in Wi-Fi performance and flexibility. This 4x4 MIMO antenna has 4 different antenna orientations in one enclosure. This means the antenna can be used in a 2x2, 3x3 and if necessary, a 4x4 antenna configuration.

The wide beamwidth ensures good coverage in offices, halls and factories etc. The antenna operates in the two Wi-Fi frequency bands 2.4 GHz and 5 GHz, offering excellent utilization of the radio spectrum. The antenna has 9 dBi gain in the 2.4 GHz band and 11 dBi gain in the 5 GHz band, which offers the best performance with a reliable connection. The housing is made of ABS which is a high impact resistant plastic and is also resistant to acids and other chemicals that may occur in industrial plants.

The antenna can be opened on the side where the 4 x SMA female connectors are placed. The cable can be fed through the bypass gland, which eliminates the joint to the antenna extension cables. This eliminates connector losses and the need for taping and waterproofing the connectors for an outdoor installation. This antenna is designed for installations where 4x4 (four independent streams), multiplexing time-space technologies is needed. It can be used indoors or outdoors and is ideal for use in warehouses, production facilities, building sites or any other environment that requires Wi-Fi connectivity, such as computers, mobile phones, tablets, and any other IoT devices.

## Features

- Operational in the 2.4 GHz and 5 GHz Wi-Fi bands
- High gain, directional antenna
- MIMO capability for optimum performance
- Robust design for vandal and dust resistance (IP 65)
- Easily mountable on poles

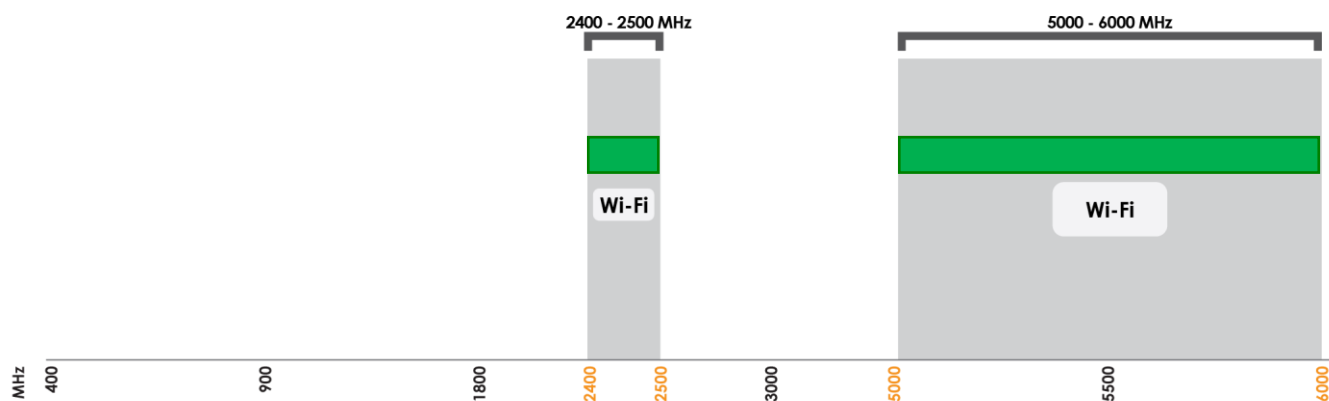
## Application Areas

- Offices, warehouses and factories
- Areas with poor data signal reception (indoor or outdoor)
- Open mine areas
- Areas with a lot of radio frequency noise
- M2M and IoT applications




## Frequency Bands

The WLAN-61 is a directional antenna that works from | 2400 – 2500 MHz | and | 5000 – 6000 MHz |



 Indicates the Wi-Fi bands on which WLAN-61 works

## Antenna Overview

|                   |  |
|-------------------|--|
| Ports             | 4  |
| SISO / MIMO       | 4x4 MIMO   |
| Frequency Bands   | 2400 – 2500 MHz<br>5000 – 6000 MHz   |
| Polarisation      | $\pm 45^\circ$ , horizontal and vertical   |
| Peak Gain         | 2.4 GHz: 9 dBi<br>5 GHz: 11 dBi  |
| Coax Cable Type   | N/A  |
| Coax Cable Length | N/A  |
| Connector Type    | SMA (F)  |

\*The connectors are factory mounted to the antenna

## Electrical Specifications

|                             |   |
|-----------------------------|---|
| <b>Frequency bands:</b>     | 2400 – 2500 MHz<br>5000 – 6000 MHz              |
| <b>Gain (max):</b>          | 9 dBi @ 2400-2500 MHz<br>11 dBi @ 5000-6000 MHz |
| <b>VSWR:</b>                | <2:1  |
| <b>Feed power handling:</b> | 10 W  |
| <b>Input impedance:</b>     | 50 Ohm (nominal)                                |
| <b>Polarisation:</b>        | ±45°, horizontal and vertical                   |
| <b>DC short:</b>            | Yes   |

## Product Box Contents

|                          |                               |
|--------------------------|-------------------------------|
| <b>Antenna:</b>          | A-WLAN-0061-V1                |
| <b>Mounting bracket:</b> | Cast aluminium swivel bracket |

## Ordering Information

|                            |                |
|----------------------------|----------------|
| <b>Commercial name:</b>    | WLAN-61        |
| <b>Order product code:</b> | A-WLAN-0061-V1 |
| <b>EAN number:</b>         | 6009710924006  |

## Mechanical Specifications

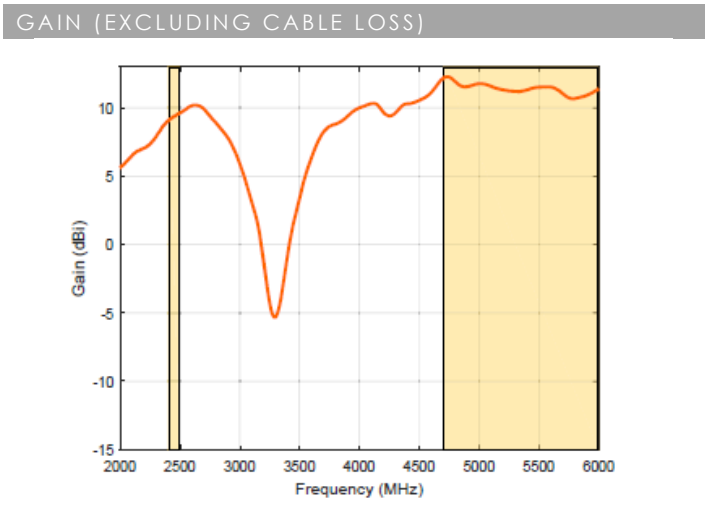
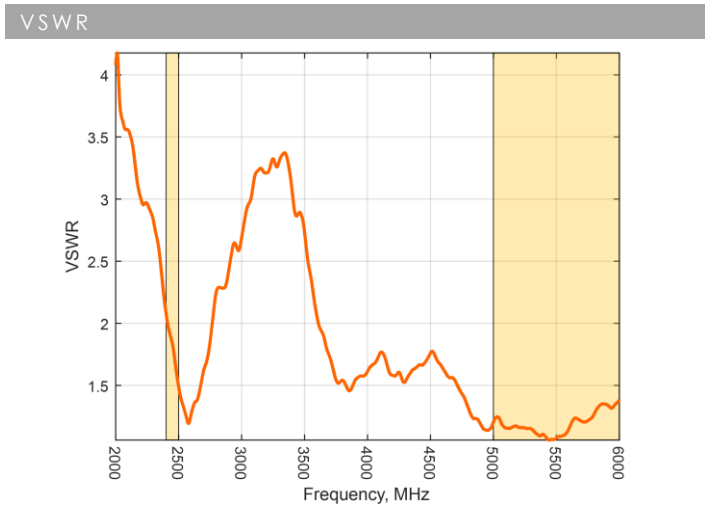
|                             |                                      |
|-----------------------------|--------------------------------------|
| <b>Product dimensions</b>   | 240 mm x 240 mm x 60 mm              |
| <b>Packaged dimensions:</b> | 260 mm x 280 mm x 80 mm              |
| <b>Weight:</b>              | 0.76 kg                              |
| <b>Packaged weight:</b>     | 1.334 kg                             |
| <b>Radome material:</b>     | ABS (Halogen Free)                   |
| <b>Radome colour:</b>       | Pantone – Cool Gray (1C)<br>RAL 7047 |
| <b>Mounting Type:</b>       | Wall and Pole mount                  |

## Environmental Specifications, Certification & Approvals

|   |                                     |
|---|-------------------------------------|
| <b>Wind Survival:</b>                           | 160 km/h                            |
| <b>Temperature Range (Operating):</b>           | -40°C to +70°C                      |
| <b>Environmental Conditions:</b>                | Outdoor/Indoor                      |
| <b>Water ingress protection ratio/standard:</b> | IP 65 (NEMA 4X)                     |
| <b>Salt Spray:</b>                              | MIL-STD 810F/ASTM B117              |
| <b>Operating Relative Humidity:</b>             | Up to 98%                           |
| <b>Storage Humidity:</b>                        | 5% to 95% - non-condensing          |
| <b>Storage Temperature:</b>                     | -40°C to +70°C                      |
| <b>Enclosure Flammability Rating:</b>           | UL 94-HB                            |
| <b>Impact resistance:</b>                       | IK 08                               |
| <b>Product Safety &amp; Environmental:</b>      | Complies with CE and RoHS standards |



**Antenna Performance Plots**



**Voltage Standing Wave Ratio (VSWR)**

VSWR is a measure of how efficiently radio-frequency power is transmitted from a power source, through a transmission line, into a load. In an ideal system, 100% of the energy is transmitted which corresponds to a VSWR of 1:1.

The WLAN-61 delivers superior performance across all bands with a VSWR of 2:1 or better.

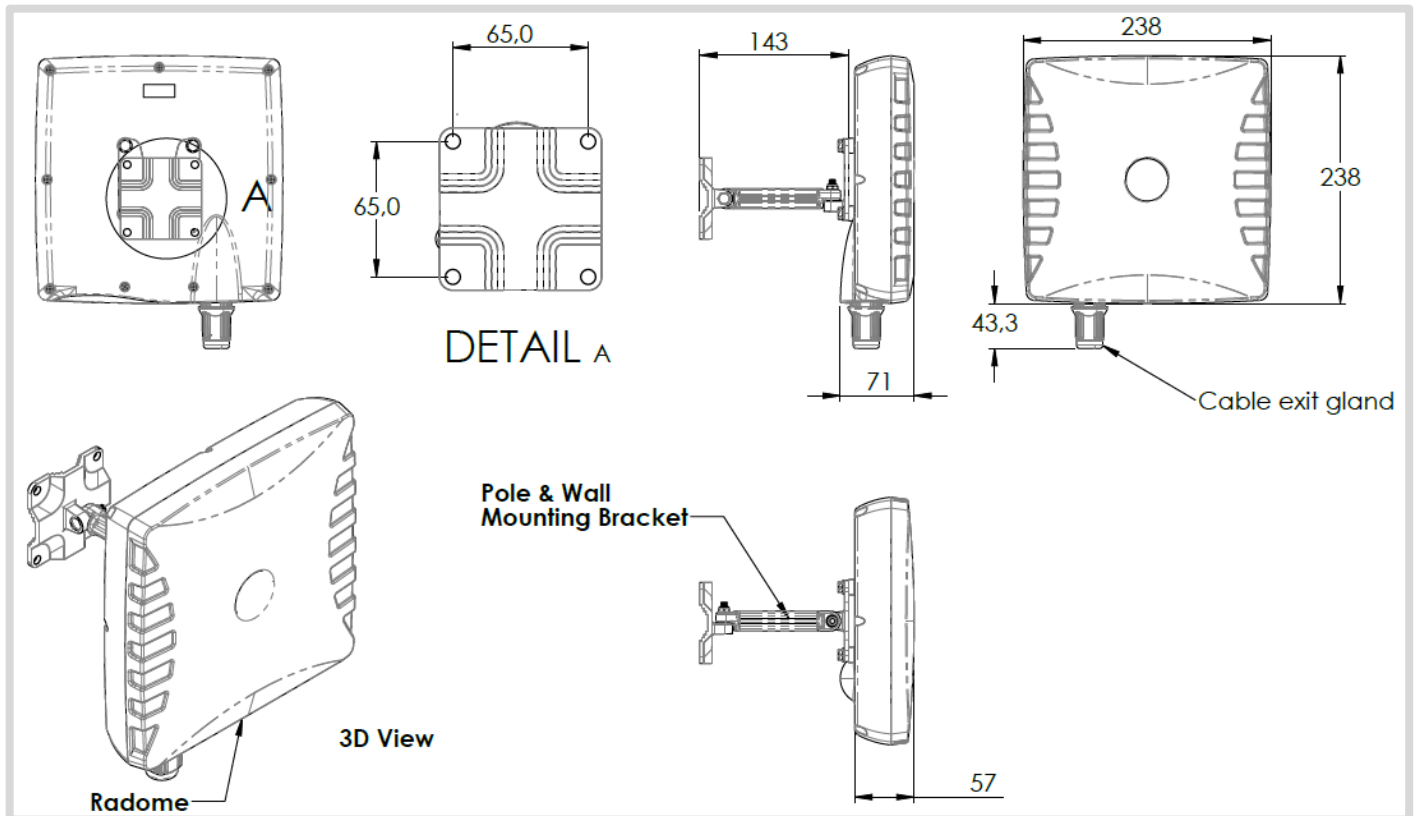
**Gain\* in dBi**

11 dBi is the peak gain across all bands from 2400-2500 MHz and 5000-6000 MHz

|                         |        |
|-------------------------|--------|
| Gain @ 2400 – 2500 MHz: | 9 dBi  |
| Gain @ 5000 – 6000 MHz: | 11 dBi |

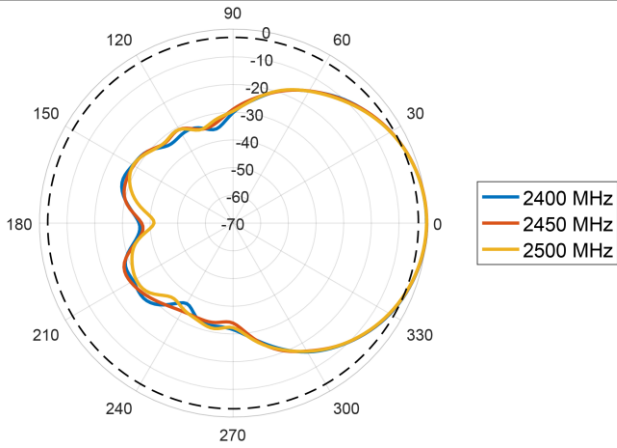
*\*Antenna gain measured with polarisation aligned standard antenna*

**Technical Drawings**

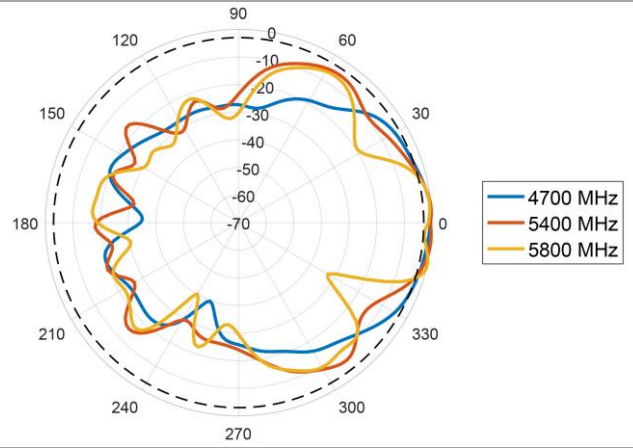


**Radiation Patterns**

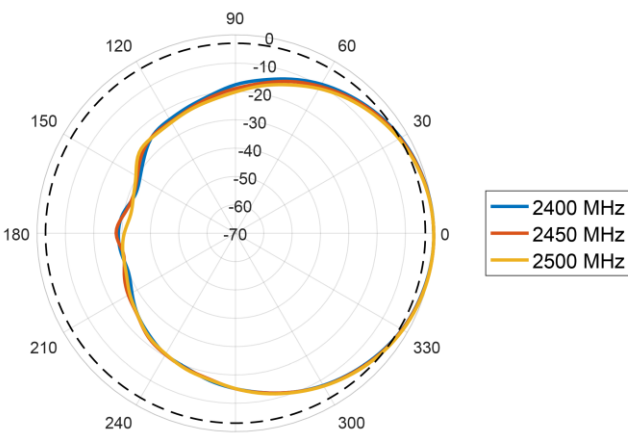
Azimuth: 2400 – 2500 MHz



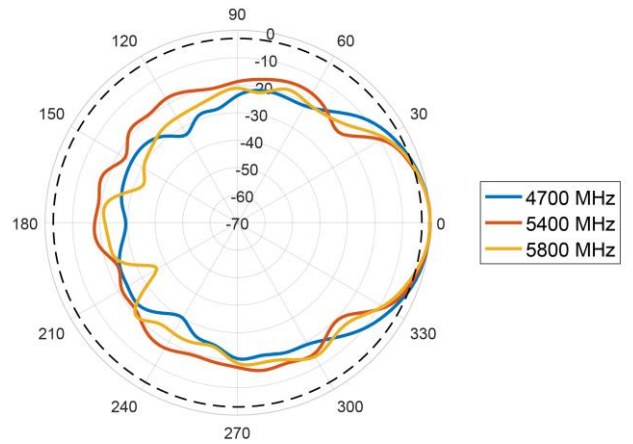
Azimuth: 5000 – 6000 MHz



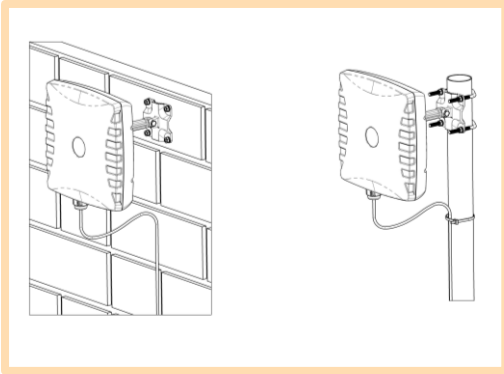
Elevation: 2400 – 2500 MHz



Elevation: 5000 – 6000 MHz

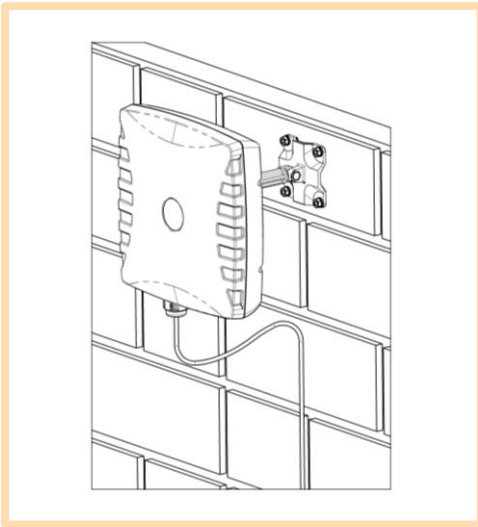


## Mounting Options



### Pole Mount

Wall/pole mount bracket included



### Wall Mount

Wall/pole mount bracket included

### Additional Accessories

Extension Cables: Up to 15m HDF 195  
Various connectors available  
Installation poles and brackets available

See accessories technical specifications on [www.poynting.tech](http://www.poynting.tech)

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