

# OMNI-706



ANTENNAS | OMNI-706 SERIES

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

2400 – 2500 MHz, 5000 – 6000 MHz; 5.5 dBi



2400 – 2500 MHz; 5000 – 6000 MHz	5.5 dBi	Increase x Mb/s	Omni- Directional	2.4 – 2.5 GHz; 5.0 – 6.0 GHz	Internet of Things
Machine to Machine	-40°C to +80°C	Fire Resistant	Chemical Protection	IP 69K	IK 10

- **Medium gain, omni-directional Wi-Fi antenna**
- **Suitable for dual band 2.4 GHz and 5 GHz Wi-Fi deployment**
- **Compliant with IEEE 802.11b/g/n and 802.11ac wireless standard**
- **Ideal for IoT and M2M applications**
- **Rugged and low-profile design**
- **High pressure water and dust ingress protected enclosure (IP69K)**



### Product Overview

The OMNI-706 is a dual band Wi-Fi, omni-directional antenna, developed by Poynting Antennas. The OMNI-706 forms part of our new “Rhyno” antenna range and covers the 2.4 GHz and 5 – 6 GHz Wi-Fi bands, which offers excellent utilization of the radio spectrum. The antenna has a maximum gain of 4 dBi in the 2.4 GHz band and 5.5 dBi in the 5 GHz band, which offers improved performance with reliable connections. The antenna was designed with superior pattern control over the entire frequency range, making the OMNI-706 an exceptional omni-directional antenna for its size.

The OMNI-706 antenna to be connected to any Wi-Fi access point, whether it is older Wi-Fi technology or new dual band Wi-Fi technology. The antenna can therefore be used to resolve channel saturation and provide the ultimate in Wi-Fi performance and flexibility. This means that the antenna can also be used for point-to-point links where there is abundance of RF noise and cluttered environments. The rugged enclosure design offers protection in adverse environmental conditions with an IP 69K and IK 10 rating. The antenna comes with an N-Type female connector at its base, which can be connected to a cable of the desired type and length.

### Features

- Dual band 2.4 GHz and 5 GHz Wi-Fi antenna
- Omni-directional antenna with medium to high gain
- Easy installation, pole- or wall mountable
- Stylish and robust design
- High pressure water and dust proof enclosure (IP 69K)

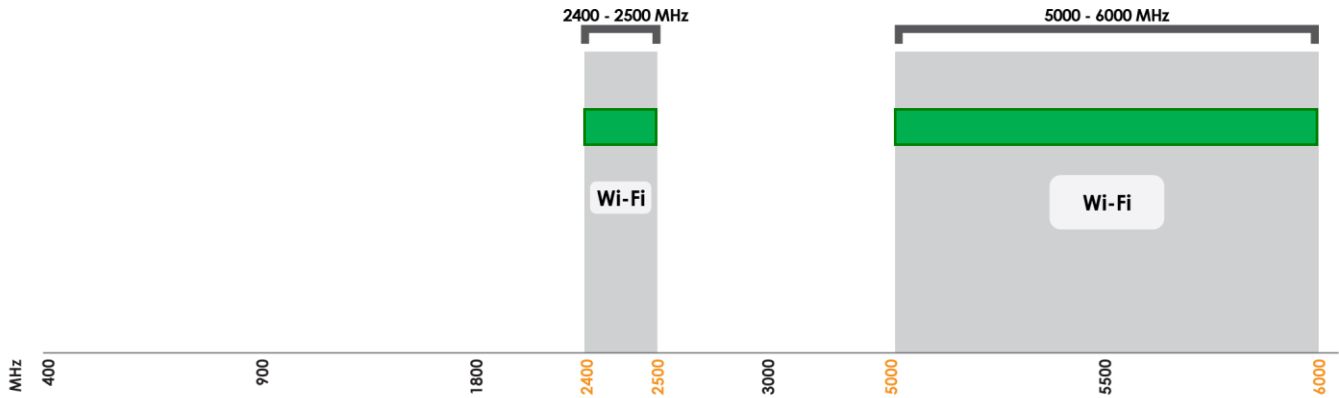
### Application Areas

- Smart Utilities: Smart Power Metering, Gas & Water Metering
- Smart Buildings: Climate control, access control, security, irrigation
- Smart Environmental & Water Systems
- Industrial factory automation and M2M systems



## Frequency Bands

The OMNI-706 is an omni-directional antenna that works from 2400 – 2500 MHz | 5000 – 6000 MHz |



 Indicates the WI-FI bands on which OMNI-706 works

## Antenna Overview

	
Ports	1
SISO / MIMO	SISO
Frequency Bands	2400 - 2500; 5000 - 6000 MHz
Polarisation	Linear (Vertical)
Peak Gain	5.5 dBi
Coax Cable Type	N/A
Coax Cable Length	N/A
Connector Type	N-Type (F)

## Electrical Specifications

Frequency bands:	2400 - 2500 MHz 5000 - 6000 MHz
Gain (max):	4.0 dBi @ 2400 – 2500 MHz 5.5 dBi @ 5000 – 60000 MHz
VSWR:	< 2:1
Feed power handling:	10 W
Input impedance:	50 Ohm (nominal)
Polarisation:	Linear Vertical
Coax cable loss:	N/A
DC short:	Path to Ground

## Product Box Contents

Antenna:	A-OMNI-0706
Mounting bracket:	Included L-Bracket, Adhesive Surface Mount

## Ordering Information

Commercial name:	OMNI-706
Order product code:	A-OMNI-0706-V1-01
EAN number:	6009710922224

## Mechanical Specifications

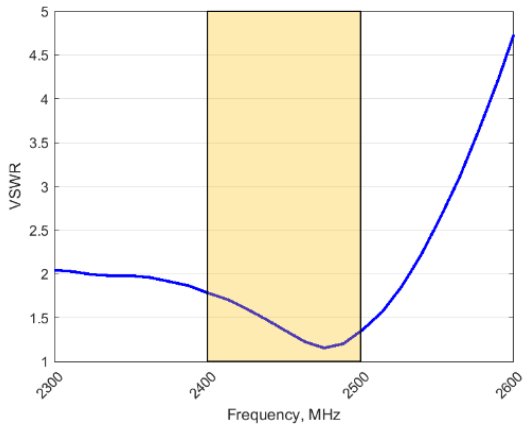
Product dimensions:	155 mm x Ø70 mm
Packaged dimensions:	240 mm x 100 mm x 85 mm
Weight:	TBC
Packaged weight:	TBC
Radome material:	UV Stable ASA
Radome colour:	Grey Pantone 429C
Mounting Type:	Wall and Pole Mount Using Bracket, Surface Mount Using Adhesive Disc

## Environmental Specifications, Certification & Approvals

Wind Survival:	≤190 km/h
Temperature Range (Operating):	-40°C to +80°C
Environmental Conditions:	Outdoor/Indoor
Water ingress protection ratio/standard:	IP 69K
Salt Spray:	MIL-STD 810G/ASTM B117
Operating Relative Humidity:	Up to 98%
Storage Humidity:	5% to 95% - non-condensing
Storage Temperature:	-40°C to +80°C
Enclosure Flammability Rating:	UL 94-HB
Impact resistance:	IK 10
Product Safety & Environmental:	Complies with CE and RoHS standards

## Antenna Performance Plots

### VSWR: 2400 – 2500 MHz



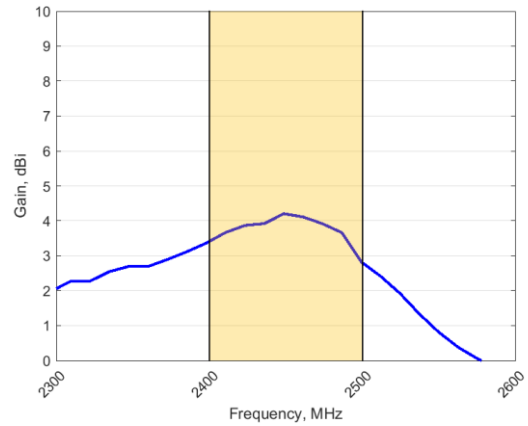
#### Voltage Standing Wave Ratio (VSWR)\*

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 OMNI-706 delivers superior performance across all bands with a VSWR of 2:1 or better across the band.

\* VSWR measured with no cable

### GAIN: 2400 – 2500 MHz (EXCLUDING CABLE LOSS)

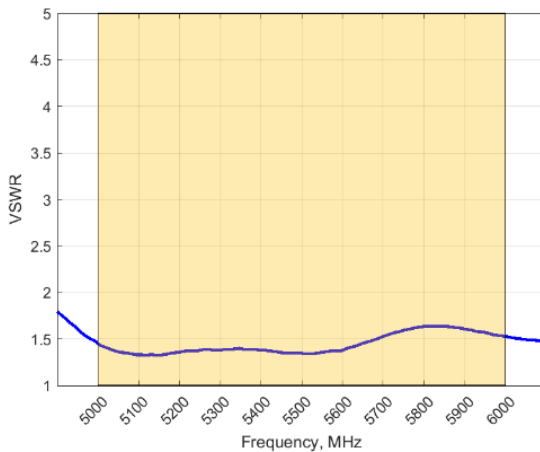


#### Gain\* in dBi

4 dBi is the peak gain across all bands from 2400 – 2500 MHz

\*Antenna gain measured with polarisation aligned standard antenna

### VSWR: 5000 – 6000 MHz



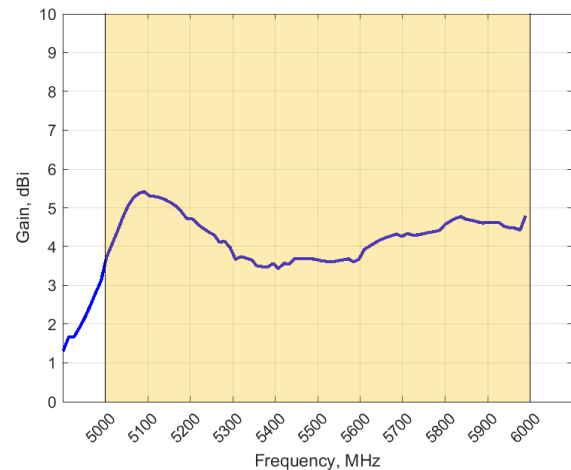
#### Voltage Standing Wave Ratio (VSWR)\*

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 OMNI-706 delivers superior performance across all bands with a VSWR of 2:1 or better across the band.

\*VSWR measured with no cable

### GAIN: 5000 – 6000 MHz (EXCLUDING CABLE LOSS)

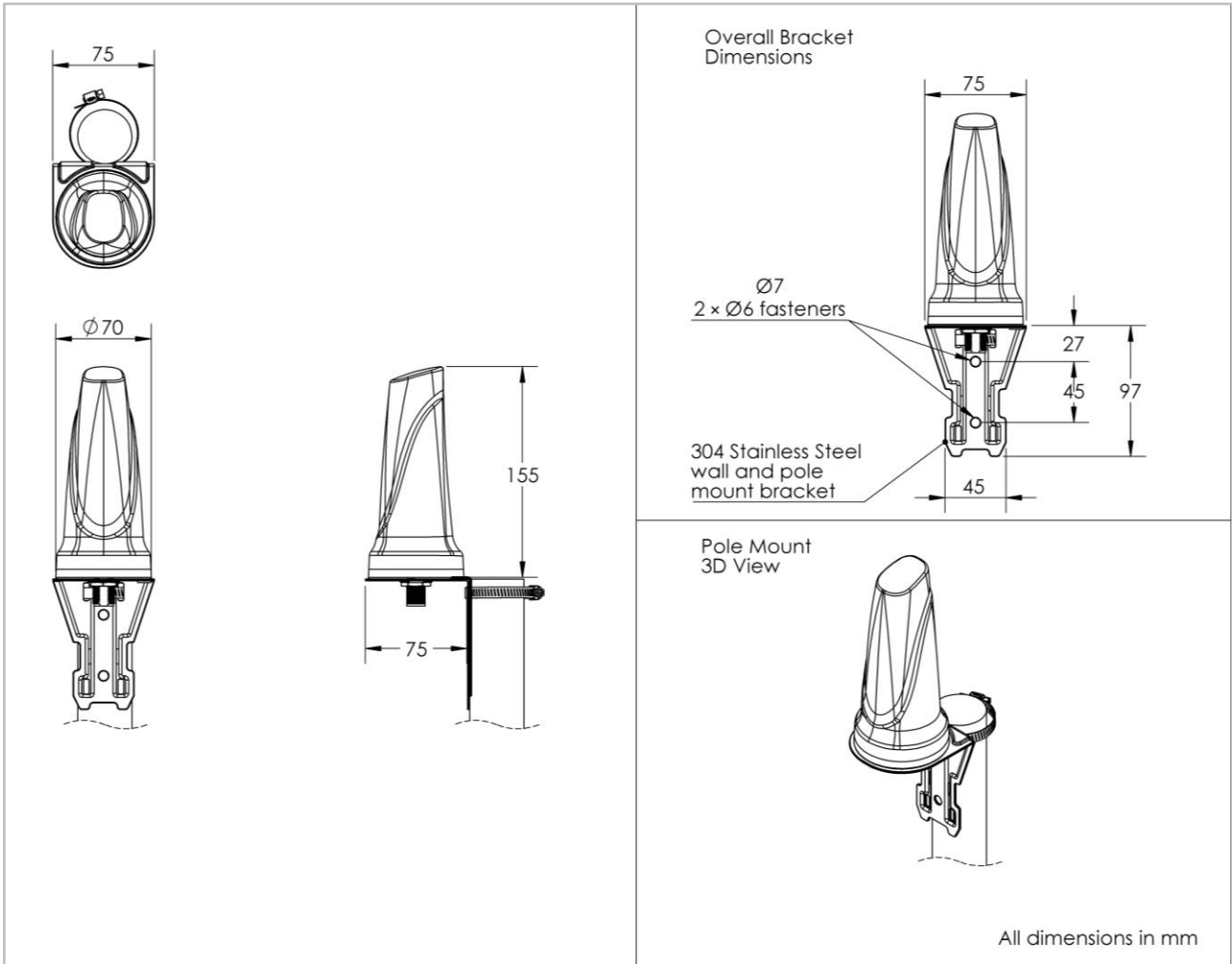


#### Gain\* in dBi

5.5 dBi is the peak gain across all bands from 5000 – 6000 MHz

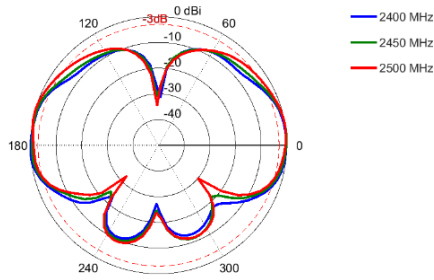
\*Antenna gain measured with polarisation aligned standard antenna

Technical Drawings

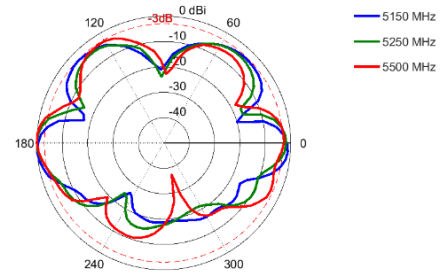


## Radiation Patterns

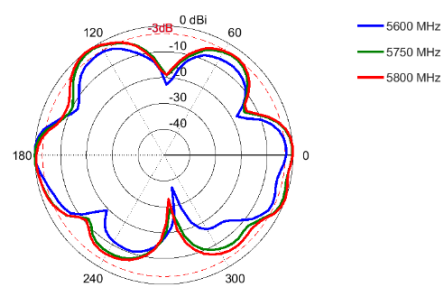
Elevation: 2400 – 2500 MHz



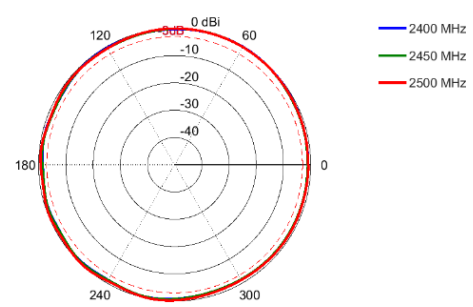
Elevation: 5000 – 5500 MHz



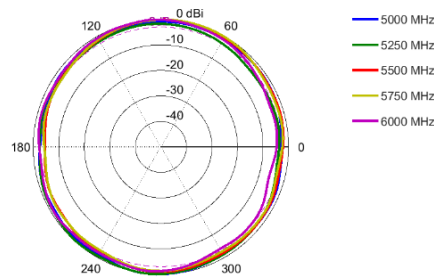
Elevation: 5600 – 6000 MHz



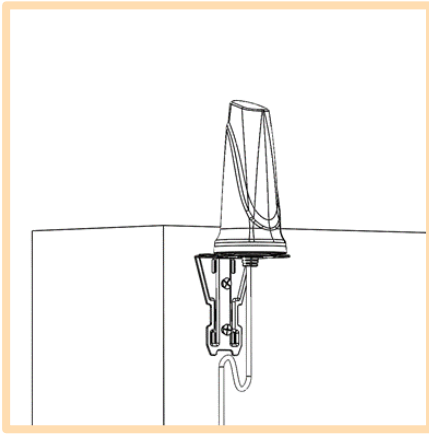
Azimuth: 2400 – 2500 MHz



Azimuth: 5000 – 6000 MHz

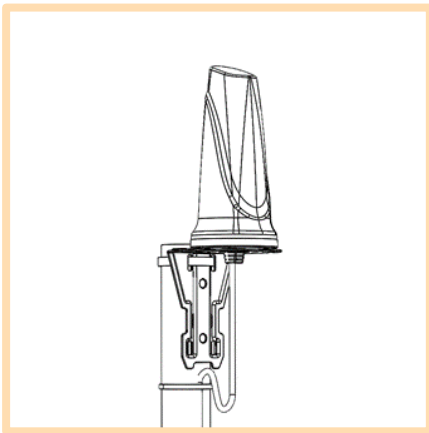


## Mounting Options



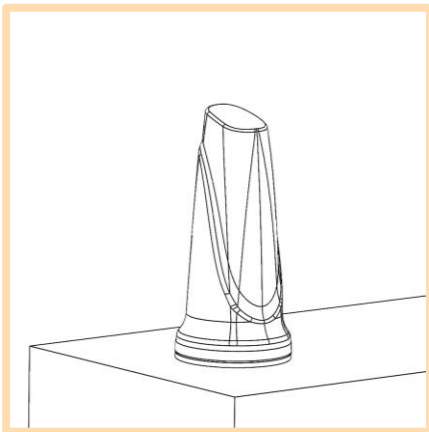
### Wall/Cabinet Mount

Wall/Cabinet mounted using included L-Bracket



### Pole Mount

Pole mounted using included L-Bracket and cable clamp



### Surface Mount

Surface mounted using included adhesive disc

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## Optional Accessories

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

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## Contact Poynting

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