

## ANTENNAS | OMNI-706 SERIES

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

2400 – 2500 MHz, 5000 – 6000 MHz, 4.8 dBi



					
2400 – 2500 MHz 5000 – 6000 MHz	4.8 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	IK 10	IP 69K

## APPLICATION AREAS

## 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 2 dBi in the 2.4 GHz band and 4.8 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 | and | 5000 – 6000 MHz |



 Indicates the Wi-Fi bands on which OMNI-706 works

## Antenna Overview

	
<b>Ports</b>	1
<b>SISO / MIMO</b>	SISO
<b>Frequency Bands</b>	2400 – 2500 MHz 5000 – 6000 MHz
<b>Polarisation</b>	Linear Vertical
<b>Peak Gain</b>	4.8 dBi
<b>Coax Cable Type</b>	N/A
<b>Coax Cable Length</b>	N/A
<b>Connector Type</b>	N-Type (F)

\*The connector is factory mounted to the antenna

## Electrical Specifications

Frequency Bands:	2400 – 2500 MHz
	5000 – 6000 MHz
Gain (Max):	2 dBi @ 2400 – 2500 MHz
	4.8 dBi @ 5000 – 6000 MHz
VSWR:	<2:1
Feed Power Handling:	10 W
Input Impedance:	50 Ohm (nominal)
Polarisation:	Linear Vertical
DC Short:	Path to Ground

## Product Box Contents

Antenna:	A-OMNI-706
Mounting Bracket (Included):	Adhesive Disc & L-Bracket (Ø20-70mm Pole)

## Ordering Information

Commercial Name:	OMNI-706
Order Product Code:	A-OMNI-0706-V1-01
EAN Number:	6009710922224

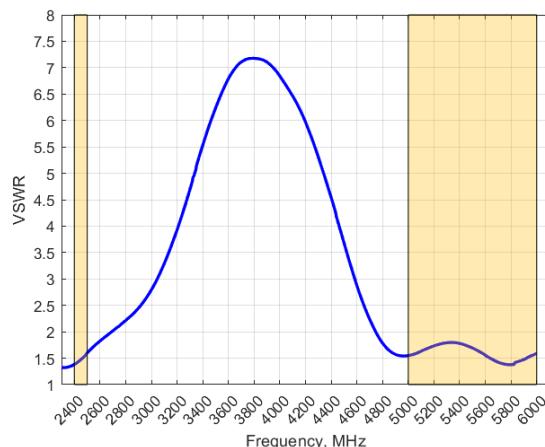
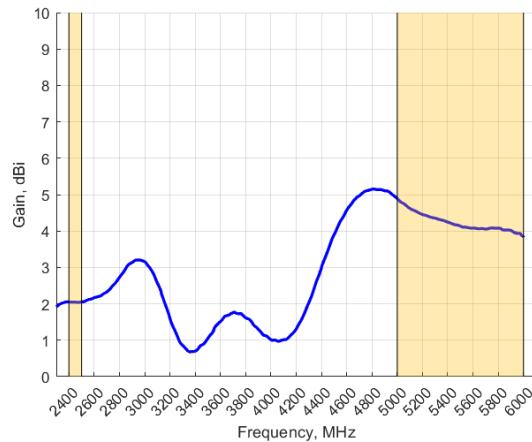
## Mechanical Specifications

Product Dimensions	155 mm x Ø70 mm
Packaged Dimensions	240 mm x 100 mm x 85 mm
Weight	0.17 kg
Packaged Weight	0.41 kg
Radome Material:	UV Stable ASA
Radome Colour:	Grey Pantone 429C
Mounting Type:	Wall and Pole Mount Using L-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**

**GAIN (EXCLUDING CABLE LOSS)**

**Gain<sup>+</sup> in dBi**

4.8 dBi is the peak gain across all bands from 2400 – 2500 MHz and 5000 – 6000 MHz

Gain @ 2400 – 2500 MHz: 2 dBi

Gain @ 5000 – 6000 MHz: 4.8 dBi

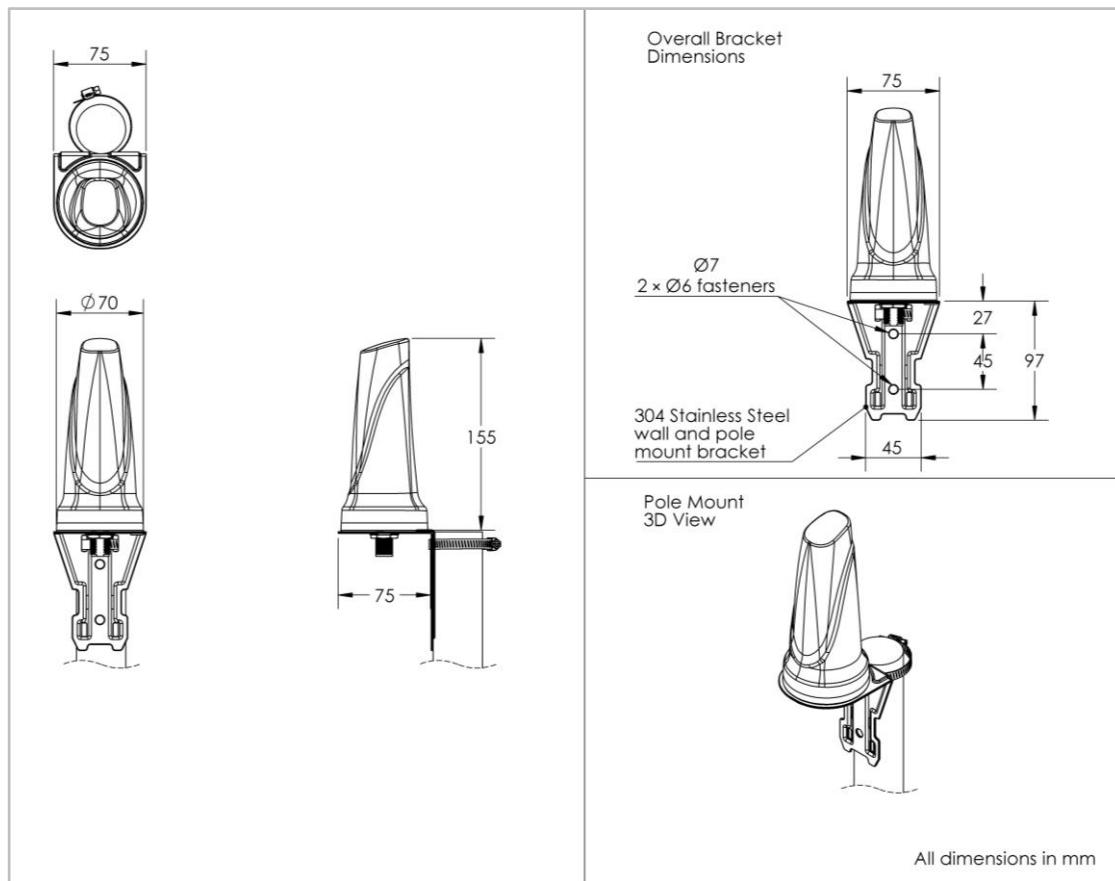
**Voltage Standing Wave Ratio (VSWR)\***

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.

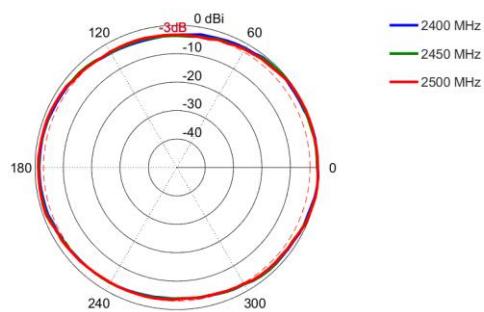
\*VSWR measured without a cable

<sup>+</sup>Antenna gain measured with polarisation aligned standard antenna

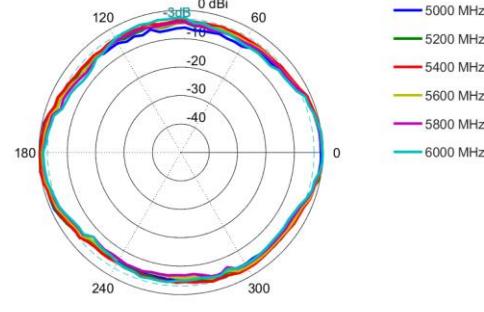
**Technical Drawings**


### Radiation Patterns

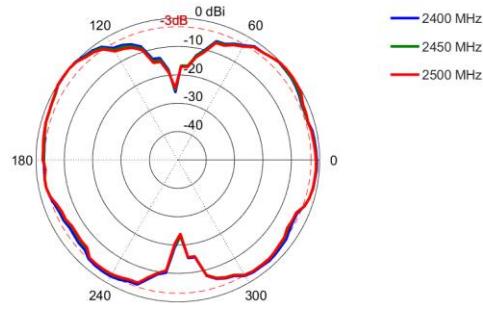
Azimuth: 2400 – 2500 MHz



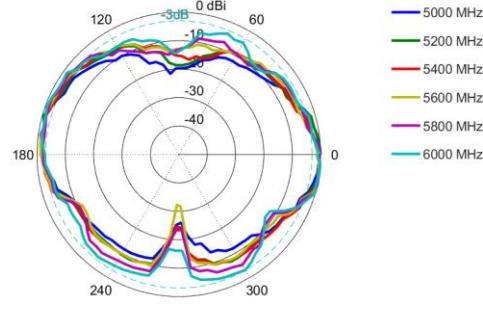
Azimuth: 5000 – 6000 MHz

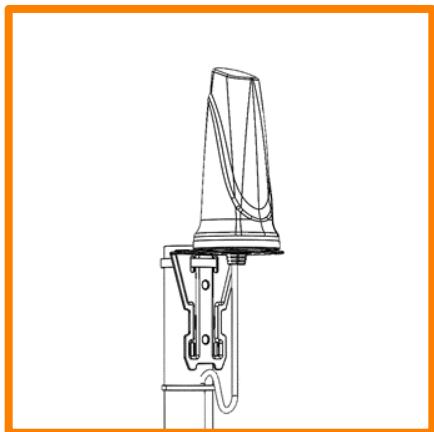


Elevation: 2400 – 2500 MHz

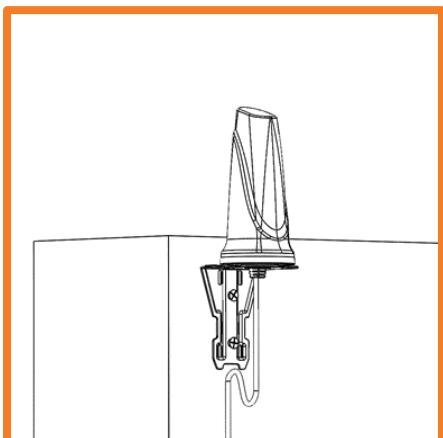


Elevation: 5000 – 6000 MHz

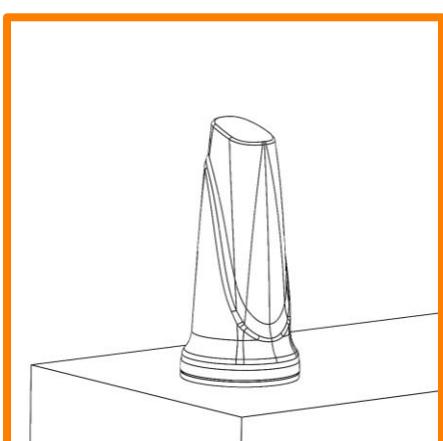


**Mounting Options****Pole Mount**

Pole mounted using included L-Bracket and cable clamp

**Wall/Cabinet Mount**

Wall/Cabinet mounted using included L-Bracket

**Surface Mount**

Surface mounted using included adhesive disc

## Additional Accessories

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

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