

## 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

- Medium gain, omni-directional Wi-Fi antenna
- Suitable for 2.4 GHz and 5 GHz Wi-Fi deployment
- Compliant with IEEE 802.11b/g/n and 802.11ac wireless standard
- Dual-port configuration to connect multiple Wi-Fi ports
- Ideal for IoT and M2M applications
- Rugged and low-profile design
- High pressure water and dust ingress protected enclosure (IP 69K)



Rural/Farm



Industrial



Mining



Tunnelling

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

<b>Frequency Bands:</b>	2400 – 2500 MHz 5000 – 6000 MHz
<b>Gain (Max):</b>	2 dBi @ 2400 – 2500 MHz 4.8 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>	Linear Vertical
<b>DC Short:</b>	Path to Ground

## Product Box Contents

<b>Antenna:</b>	A-OMNI-706
<b>Mounting Bracket:</b>	Included L-Bracket and adhesive disc

## Ordering Information

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

## Mechanical Specifications

<b>Product Dimensions</b>	155 mm x Ø70 mm
<b>Packaged Dimensions</b>	240 mm x 100 mm x 85 mm
<b>Weight</b>	0.17 kg
<b>Packaged Weight</b>	0.41 kg
<b>Radome Material:</b>	UV Stable ASA
<b>Radome Colour:</b>	Grey Pantone 429C
<b>Mounting Type:</b>	Wall and Pole Mount Using L-Bracket & Surface Mount Using Adhesive Disc

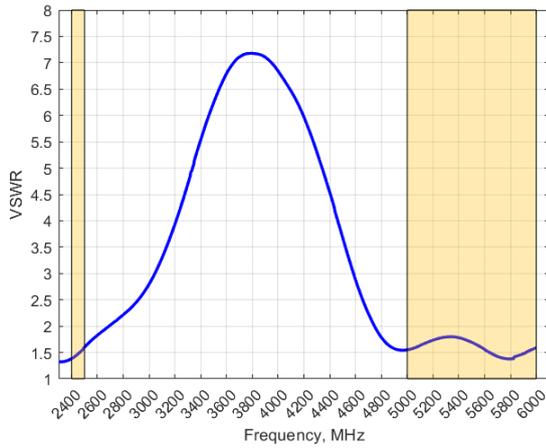
## Environmental Specifications, Certification & Approvals

<b>Wind Survival:</b>	≤190 km/h
<b>Temperature Range (Operating):</b>	-40°C to +80°C
<b>Environmental Conditions:</b>	Outdoor/Indoor
<b>Water Ingress Protection Ratio/Standard:</b>	IP 69K
<b>Salt Spray:</b>	MIL-STD 810G/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 +80°C
<b>Enclosure Flammability Rating:</b>	UL 94-HB
<b>Impact Resistance:</b>	IK 10
<b>Product Safety &amp; Environmental:</b>	Complies with CE and RoHS standards

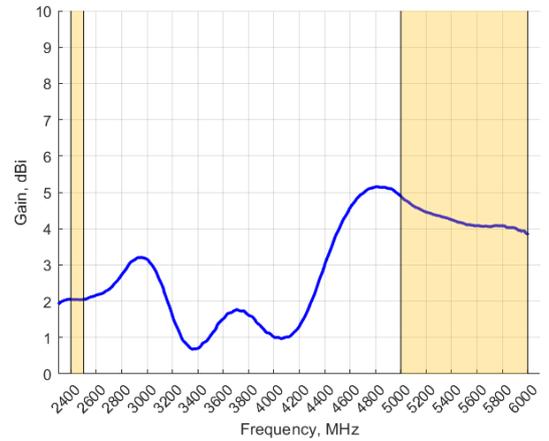


**Antenna Performance Plots**

**VSWR**



**GAIN (EXCLUDING CABLE LOSS)**



**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

**Gain\* in dBi**

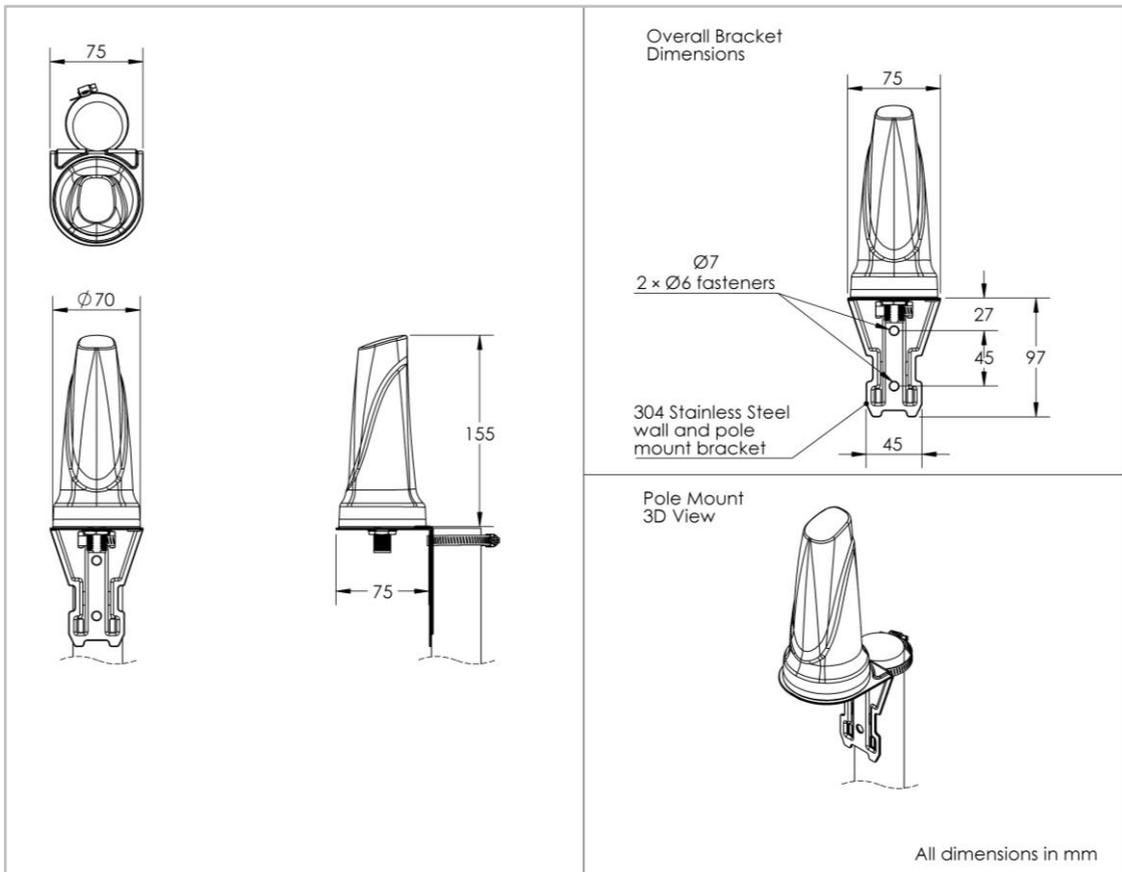
4.8 dBi is the peak gain across all bands from 2400 – 2500 MHz and 5000 – 6000 MHz

Gain @ 2400 – 2500 MHz: 2 dBi

Gain @ 5000 – 6000 MHz: 4.8 dBi

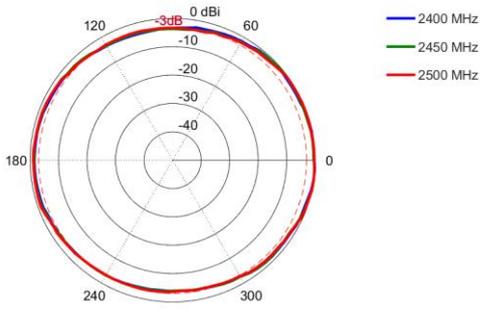
\*Antenna gain measured with polarisation aligned standard antenna

**Technical Drawings**

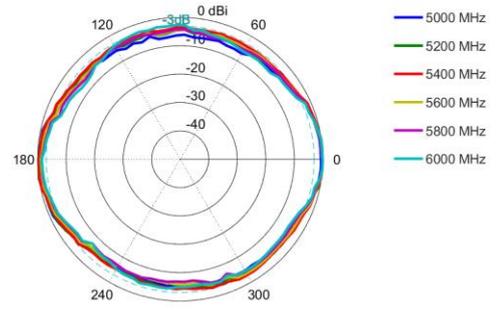


Radiation Patterns

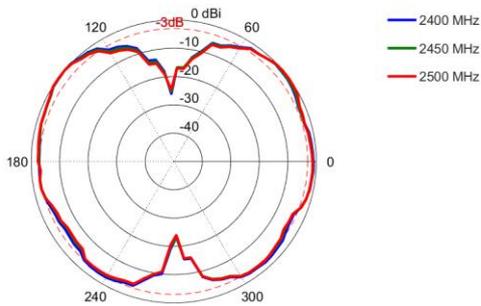
Azimuth: 2400 – 2500 MHz



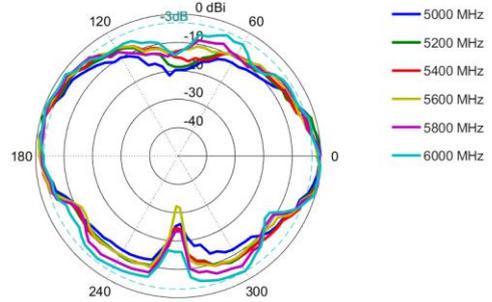
Azimuth: 5000 – 6000 MHz



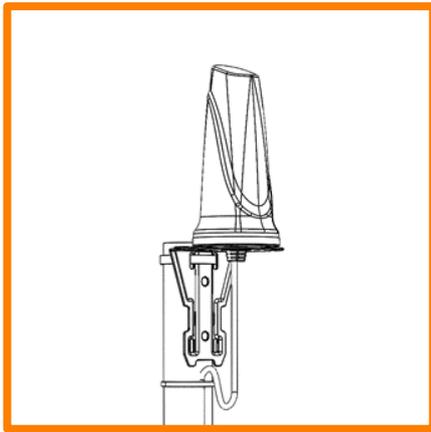
Elevation: 2400 – 2500 MHz



Elevation: 5000 – 6000 MHz

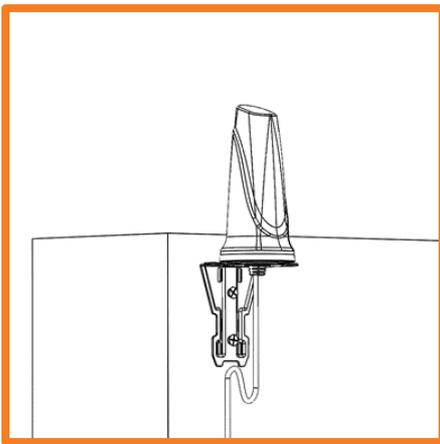


**Mounting Options**



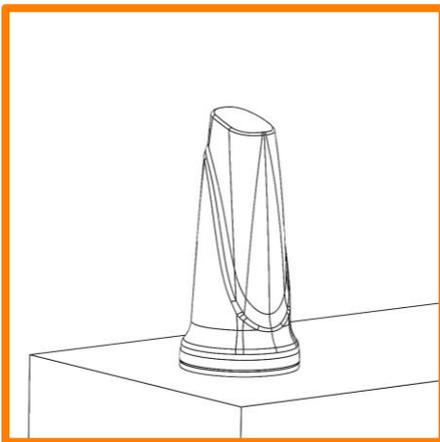
**Pole Mount**

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

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## Additional Accessories

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



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