

## ANTENNAS | OMNI-706 SERIES

# OMNI-DIRECTIONAL, DUAL BAND WI-FI ANTENNA

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



- 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)



## 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)

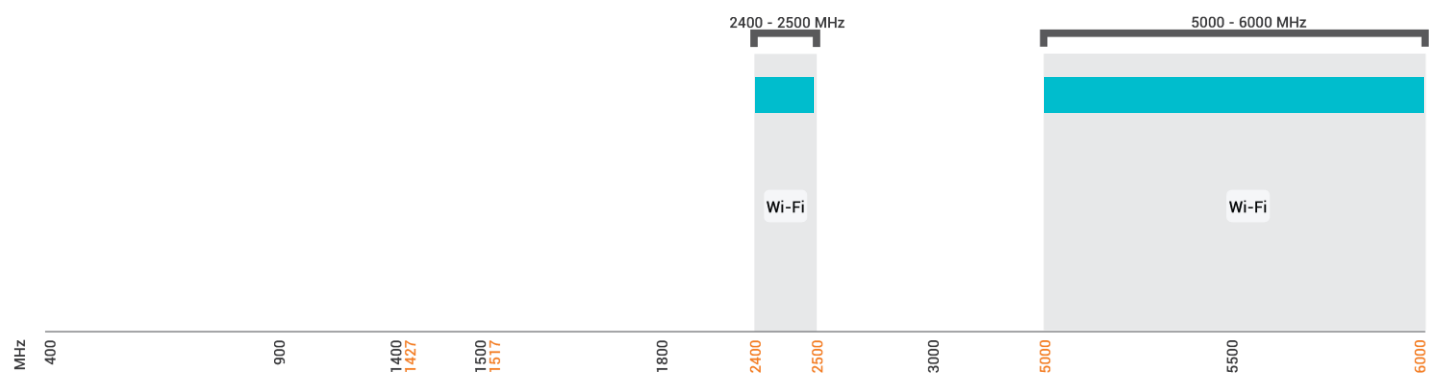
## Application Areas

- 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

	
Ports	1
SISO / MIMO	SISO
Frequency Bands	2400 – 2500 MHz 5000 – 6000 MHz
Polarisation	Linear Vertical
Peak Gain	4.8 dBi
Coax Cable Type	N/A
Coax Cable Length	N/A
Connector Type	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

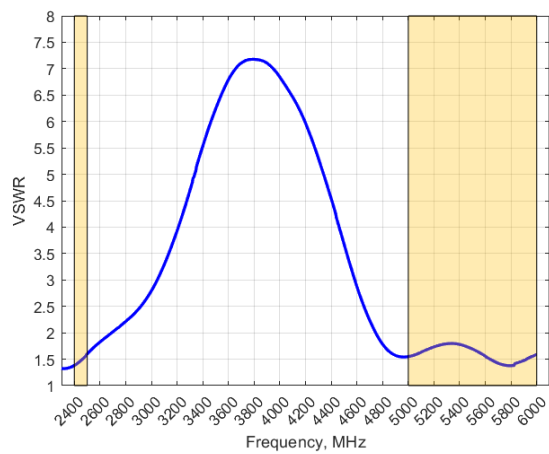
Environmental Specifications, Certification & Approvals

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



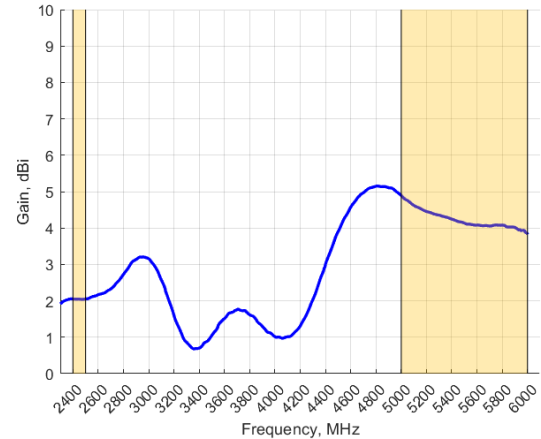
Voltage Standing Wave Ratio (VSWR)\*

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 (EXCLUDING CABLE LOSS)



Gain\* in dBi

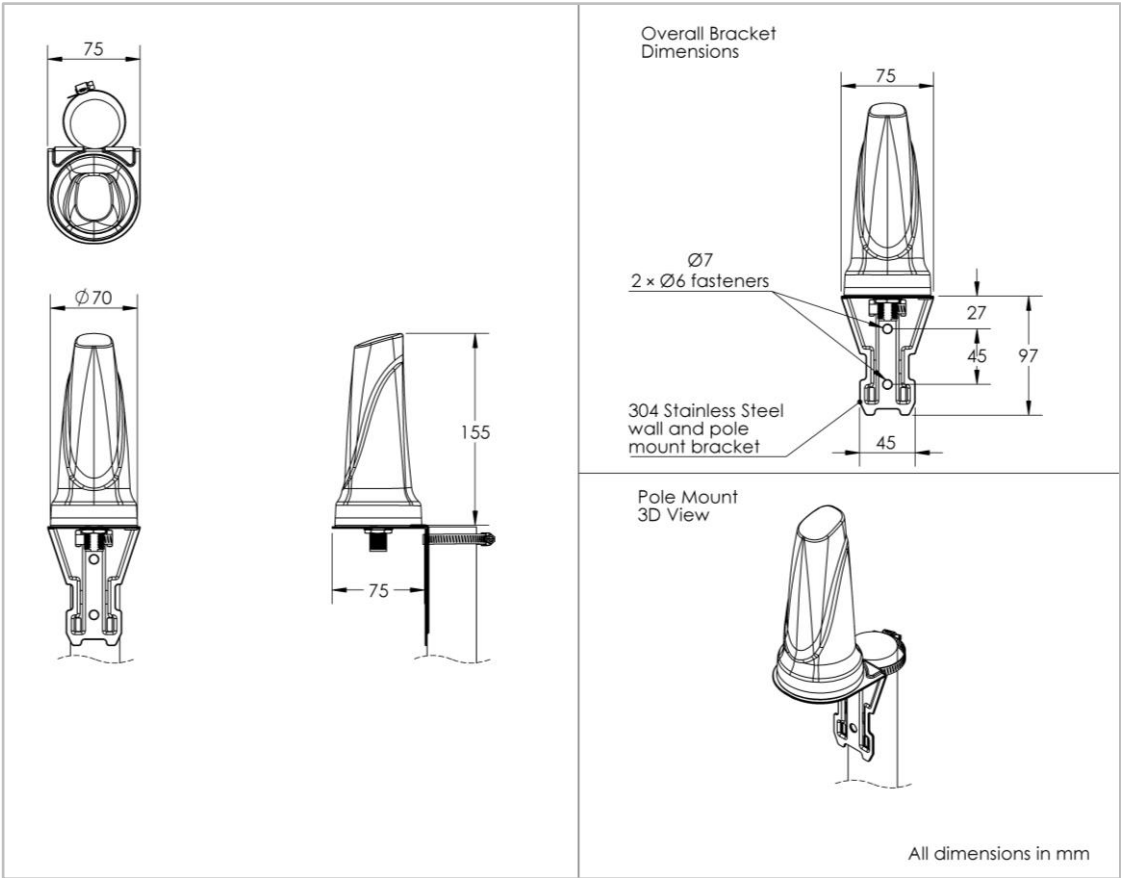
4.8 dBi is the peak gain across all bands from 2400 – 2500 MHz and 5000 – 6000 MHz

Gain @ 2400 – 2500 MHz: 2 dBi

Gain @ 5000 – 6000 MHz: 4.8 dBi

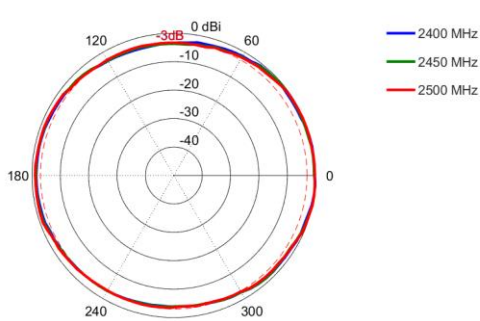
\*Antenna gain measured with polarisation aligned standard antenna

Technical Drawings

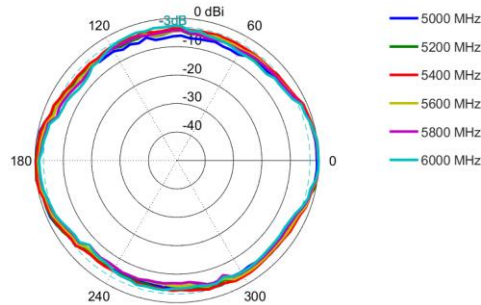


Radiation Patterns

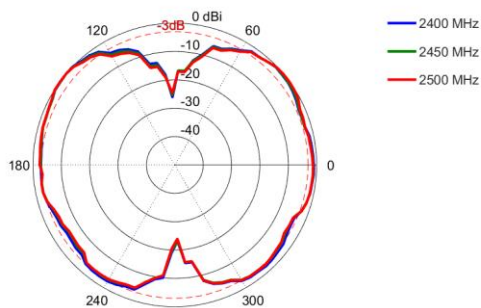
Azimuth: 2400 – 2500 MHz



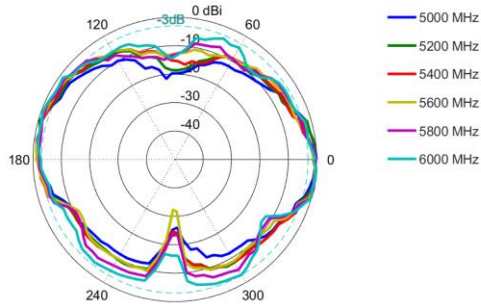
Azimuth: 5000 – 6000 MHz



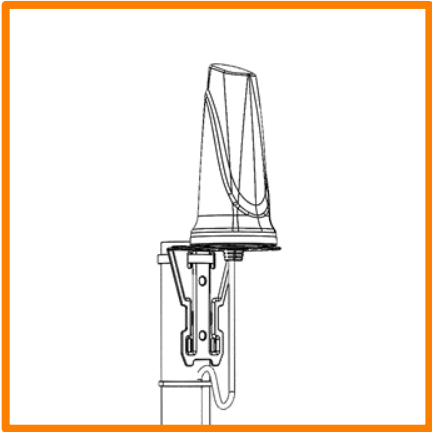
Elevation: 2400 – 2500 MHz



Elevation: 5000 – 6000 MHz

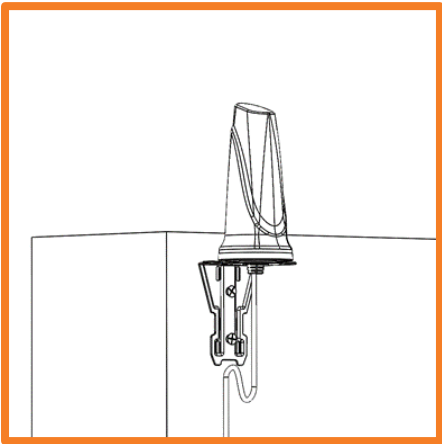


Mounting Options



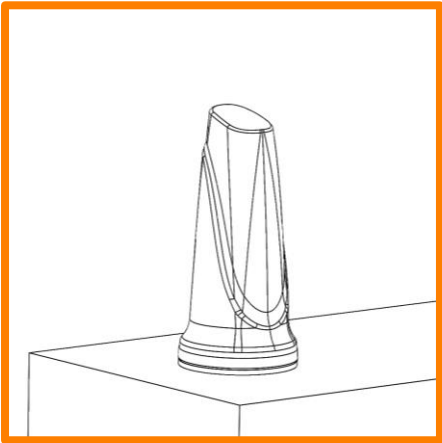
Pole Mount

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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