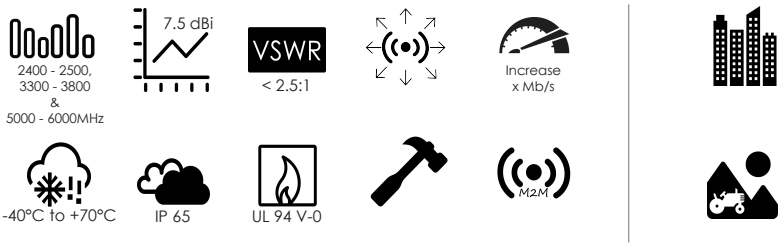
ANTENNAS | OMNI-296

OMNI-296: DUAL BAND WI-FI ANTENNA

2400-2500, 3300-3800 & 5000-6000 MHZ MEDIUM GAIN OMNI-DIRECTIONAL ANTENNA



- **Dual band medium gain 2.4 GHz and 5 GHz Wi-Fi antenna**
- **Compliant with IEEE 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac wireless standard**
- **This antenna also works at the Wi-Fi/WiMax/LTE 3.3GHz-3.8Ghz frequencies with a max gain of 7.5dBi**
- **Vandal and water resistant enclosure**

Product Overview

The Dual-Band Wi-Fi Omni directional 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. These antennas can resolve channel saturation and provide the ultimate in Wi-Fi performance and flexibility. This means the antenna can be used for point to point links where there is abundance of RF noise and also cluttered environments.

The antenna operates in two frequency bands 2.4 GHz and 5 GHz, offering excellent utilization of the radio spectrum. This Antenna has a maximum 6dBi gain at 2.4GHz band and 7.5dBi gain at the 5GHz band, which offers the best performance with reliable connections. The housing is made of ABS which is high impact resistant plastic and is also resistant to acids and other chemicals that may occur in industrial plants. The antenna has a N-Type female connector at its base which can be terminated to a cable of the desired type and length.

Application areas

- Small business
- Building sites
- Factories
- Open mine sites
- Production facilities
- M2M
- Wi-Fi/WiMax/LTE 3.3GHz - 3.8GHz applications
- Areas whith large amounts of machinery (cluttered environment)

Revised: June 2017

Regulatory Compliance: RoHS 2011/65/EU Compliant | ISO 9001:2008
Document version: TS-OMNI-0296_V4
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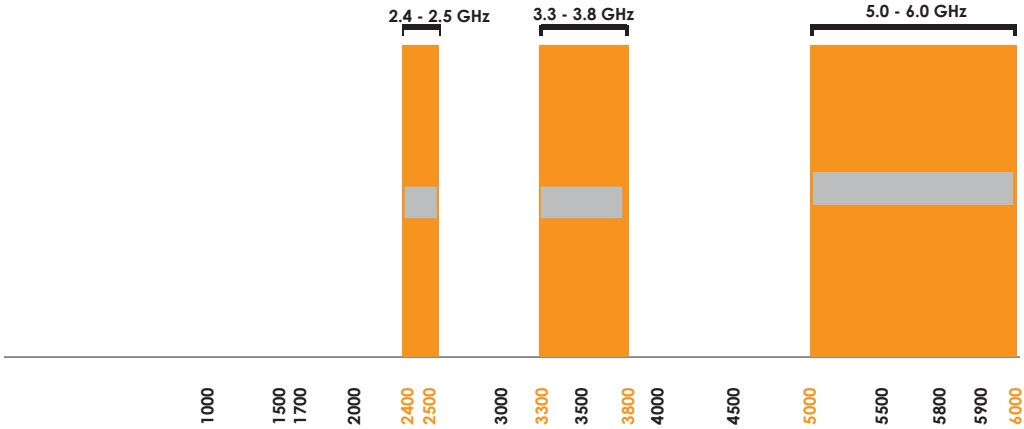
Frequency bands

The OMNI-296 works on the 2400-2500, 3300-3800 and 5000-6000 MHZ bands

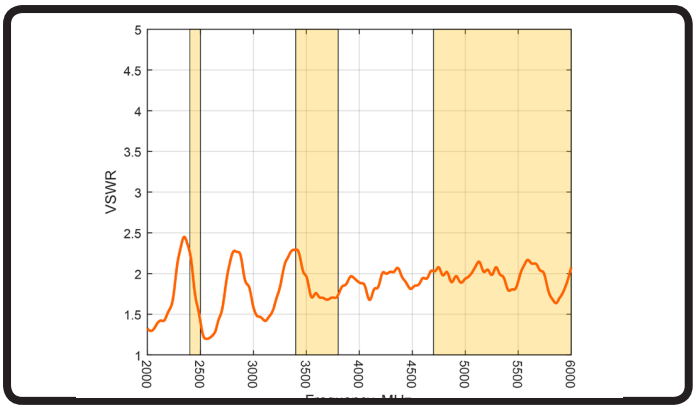
Indicates the bands on which this antenna works

OMNI-296:



Antenna Performance Plots

VSWR:

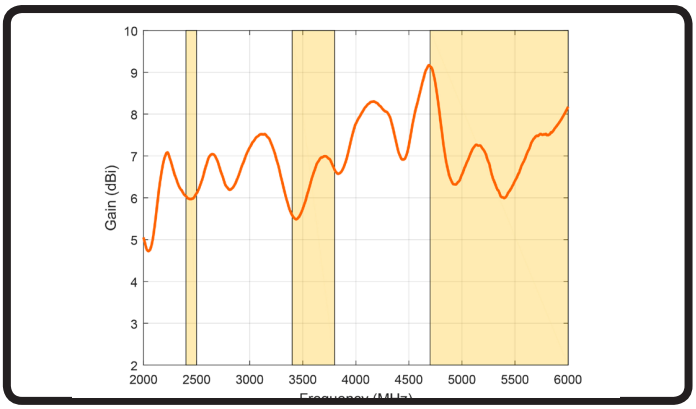


Voltage Standing Wave Ratio (VSWR)

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-296 delivers superior performance accross all bands with a VSWR of 2.5:1 or better.

*VSWR measured with 1m low loss cable

Gain: (excluding cable loss)



Gain* in dBi

7.5 dBi is the peak gain across all bands from 2.4 - 6 GHz

Gain @ 2400 - 2500 MHz:	6 dBi
Gain @ 3300 - 3800 MHz:	7 dBi
Gain @ 5000 - 6000 MHz:	7.5 dBi

*Antenna gain measured with polarisation aligned standard antenna

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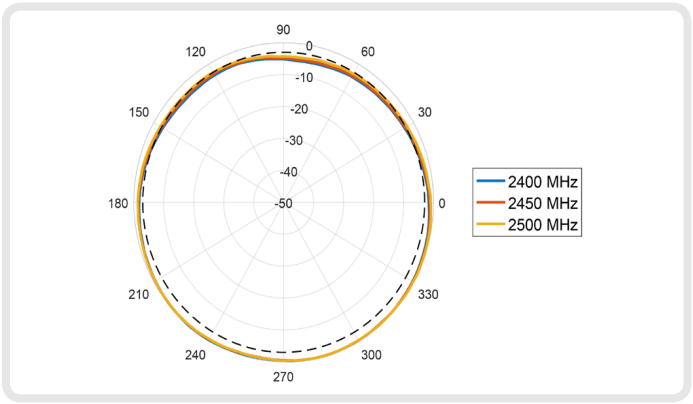
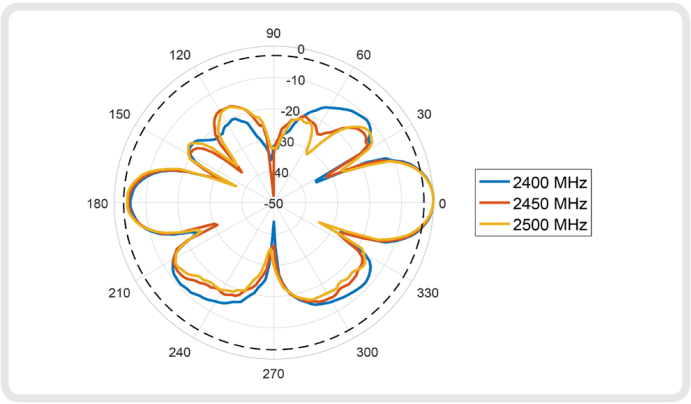
Radiation Patterns

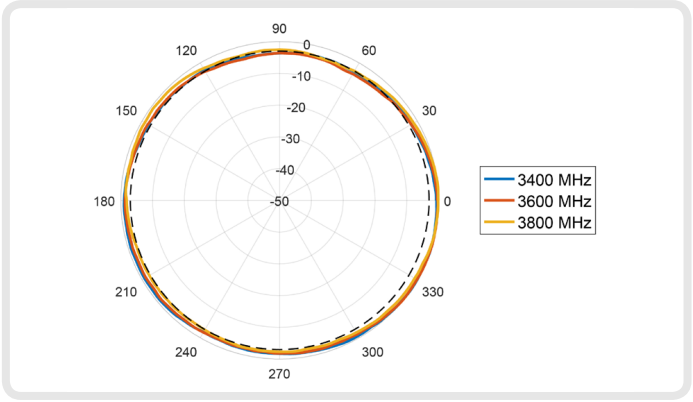
H Plane: 2400 - 2500 MHz



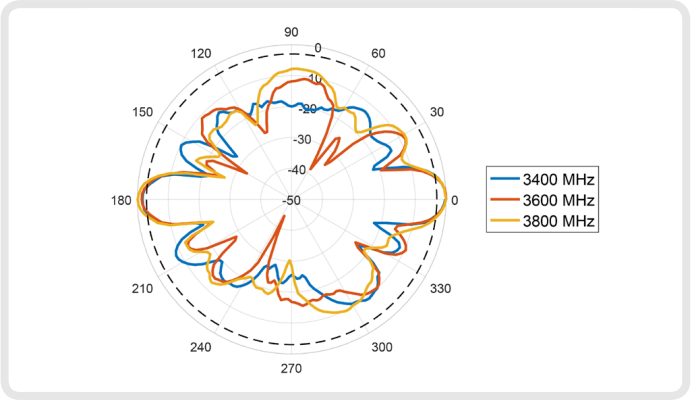
E Plane: 2400 - 2500 MHz



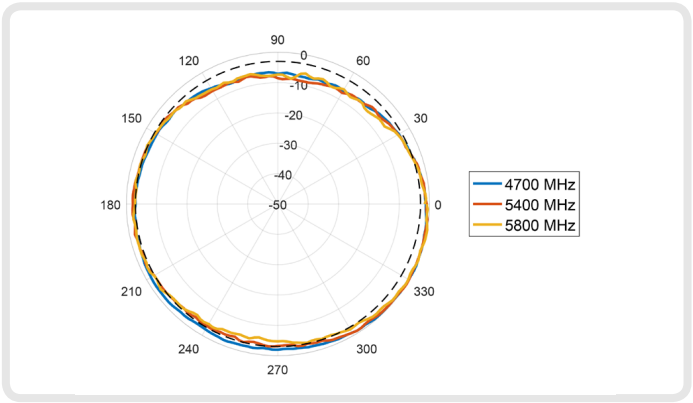
H-Plane: 3300 - 3800 MHz



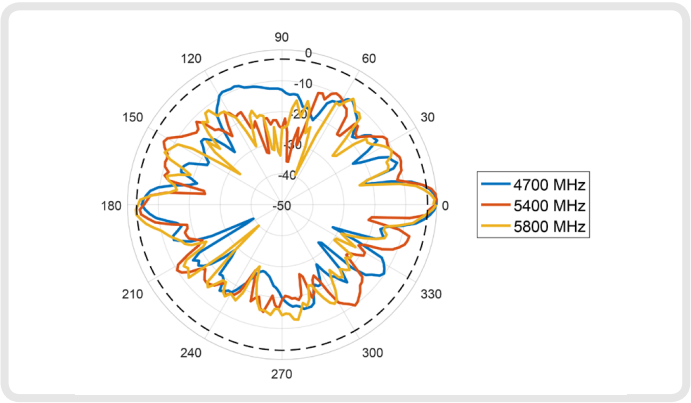
E Plane: 3300 - 3800 MHz



H-Plane: 4700 - 5800 MHz



E Plane: 4700 - 5800 MHz



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Electrical Specifications

Frequency Bands:	2400 - 2500 MHz 3300 - 3800 MHz 5000-6000 MHz
Gain (Max):	7.5 dBi
VSWR:	<2.5:1
Feed Power Handling:	10 W
Input impedance:	50 Ohm (nominal)
Polarisation:	Linear Vertical
Cable loss:	Optional Cable dependant
Path to ground:	Yes
Cable Length:	N/A
Cable Type:	N/A
Connector:	N-Type Female
Beamwidth:	2400 - 2500 MHz: 21° 3300 - 3800 MHz: 15° 4700 - 5800 MHz: 6°

Mechanical Specifications

Product Dimensions (L x W x D):	485 mm x 75 mm x 75mm
Packaged Dimensions:	510 mm x 95 mm x 90 mm
Weight:	0.75 kg
Packaged Weight:	0.91 kg
Radome Material:	ABS (Halogen Free)
Radome Colour:	Pantone - Cool Gray (1c) RAL - 7047

Environmental Specifications

Wind Survival:	160 km/h
Temperature Range (Operating):	-40°C to +70°C
Environmental Conditions:	Outdoor/Indoor
Operating Relative Humidity:	Up to 98%
Storage Humidity:	5% to 95% - non condensing Storage Temperature: -40°C to +70°C

Product Box Contents

Antenna:	A-OMNI-0296
Mounting Bracket:	Pole up to 50mm diameter Wall and Pole mount stainless steel bracket

The connector is factory mounted to the antenna

A-OMNI-0296

Ordering Information

Commercial name:	OMNI-296
Order Product Code:	A-OMNI-0296
EAN number:	0707273469694

Additional Accessories Available

Extension Cables:	Up to 15m HDF 195

Various connectors available
Installation poles and brackets available

For more detailed information and availability in your region, visit our web site: www.poynting.tech

Certification Approvals and Standards

Flammability rating:	UL 94-V1
Water Ingress Protection Ratio/Standard:	IP 65
Impact resistance:	IK 08
Salt Spray:	MIL-STD 810F/ASTM B117
Product Safety:	Complies with UL, CE, EN, CSA and IEC standards

Contact Poynting

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