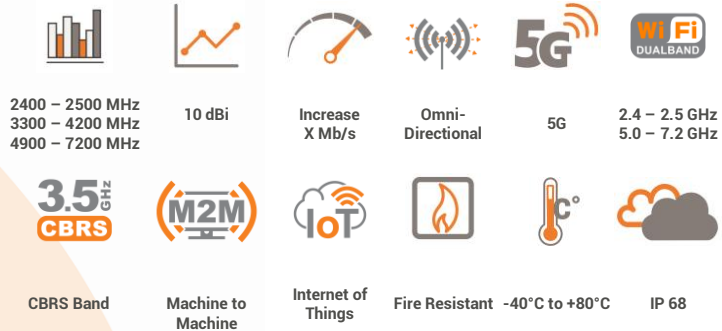
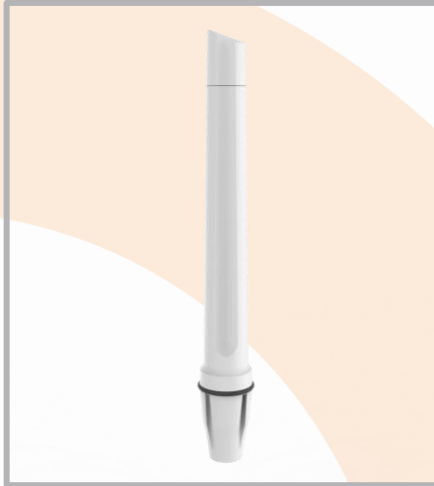


## ANTENNAS | OMNI-496 SERIES

# OMNI-DIRECTIONAL, MARINE & COASTAL ANTENNA

Dual-band Wi-Fi, 2400 – 2500 MHz, 3300 – 4200 MHz, 4900 – 7200 MHz; 10 dBi



- Dual-band Wi-Fi antenna for 2.4 GHz and 4.9 to 7.2 GHz
- Supports Wi-Fi/Wi-Fi6e/Wi-Fi7, 5G 3.3 – 4.2 GHz frequencies with a max gain of 8 dBi
- Compliant with IEEE 802.11ac/ax/be/ b/g/n wireless standards
- Easy mounting with feed through 1-inch marine standard mount
- Robust and all-weather proof (IP 68)
- Various 316 stainless steel mounting brackets available optionally
- UV and saltwater protected against tempestuous weather conditions



## Product Overview

The OMNI-496 is a dual-band Wi-Fi omni-directional antenna, developed by Poynting Antennas. The antenna can connect to any Wi-Fi access point whether it is older Wi-Fi technology or new dual band 802.11ax-enabled Wi-Fi technology. The antenna can resolve channel saturation and provide the ultimate in Wi-Fi performance and flexibility. The OMNI-496 is an IP68 marine version of its urban, industrial & commercial counterpart; the OMNI-296. The antenna operates across multiple frequency bands, i.e., 2.4 GHz, 3.3 to 4.2 GHz, and 5 to 7.2 GHz, offering excellent utilization of the radio spectrum. The antenna has a maximum gain of 7 dBi in the 2.4 GHz band and 10 dBi in the 5 GHz band, which offers the best performance with reliable connections. The antenna has an N-Type female connector at its base which can be terminated to a cable of the desired type and length.

## Features

- Operational in the 2.4 GHz and 5 GHz Wi-Fi bands
- Medium gain omni-directional antenna
- Purpose-built antenna for marine and coastal applications
- Lightweight
- UV and saltwater resistant
- Robust and weather resistant

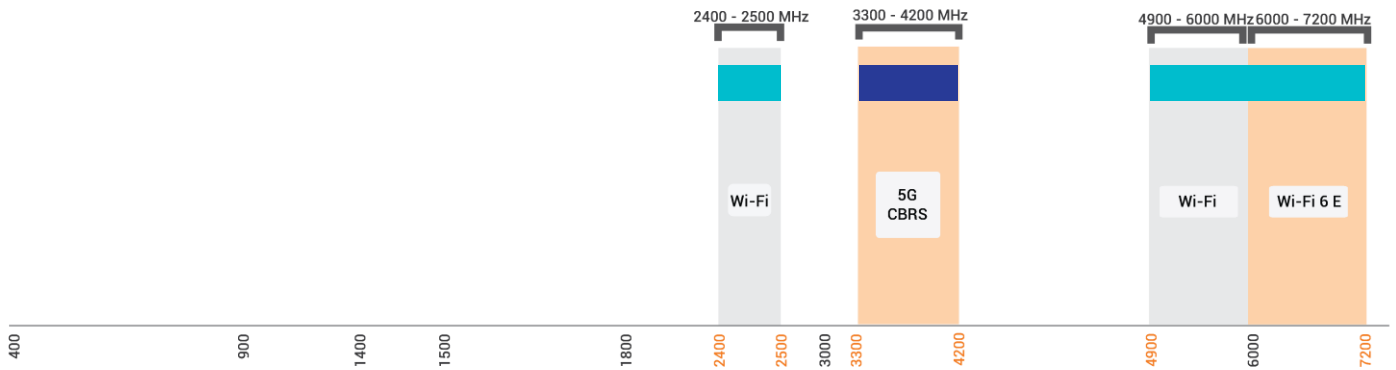
## Application Areas

- Marine / Yachts / Boats / Ferries
- Enhanced LTE reception
- IoT and M2M
- Poor data signal reception
- Improve data transmission connection reliability & stability
- Wi-Fi applications



### Frequency Bands


The OMNI-496 is an omni-directional antenna that works from | 2400 – 2500 MHz | 3300 – 4200 MHz | and | 4900 – 7200 MHz |



 Indicates the 5G/CBRS band on which OMNI-496 works

 Indicates the WI-FI bands on which OMNI-496 works

### Antenna Overview

	
Ports	1
SISO / MIMO	SISO
Frequency Bands	2400 – 2500 MHz 3300 – 4200 MHz 4900 -7200 MHz
Polarisation	Linear Vertical
Peak Gain	10 dBi
Connector Type	N-Type (F)
Coax Cable Type	N/A
Coax Cable Length	N/A

*\*The connector is factory mounted to the antenna*

**Electrical Specifications**

<b>Frequency Bands:</b>	2400 – 2500 MHz 3300 – 4200 MHz 4900 – 7200 MHz
<b>Gain (Max):</b>	7 dBi @ 2400 – 2500 MHz 8 dBi @ 3300 – 4200 MHz 10 dBi @ 4900 – 7200 MHz
<b>VSWR:</b>	<2:1
<b>Feed Power Handling:</b>	10 W
<b>Input Impedance:</b>	50 Ohm (nominal)
<b>DC Short:</b>	Yes

**Product Box Contents**

<b>Antenna:</b>	A-OMNI-0496
<b>Mounting Bracket:</b>	Marine Adapter (1" -14 TPI) & L-bracket (Ø30-50mm Pole)

**Ordering Information**

<b>Commercial Name:</b>	OMNI-496
<b>Order Product Code:</b>	A-OMNI-0496-V2-01
<b>EAN Number:</b>	6009710925768

**Mechanical Specifications**

<b>Product Dimensions:</b>	560 mm x 75 mm (Incl. BRKT-40)
<b>Packaged Dimensions:</b>	580 mm x 95 mm x 95 mm
<b>Weight:</b>	0.57 Kg
<b>Packaged Weight:</b>	1.3 Kg
<b>Radome Material:</b>	UV Stable Marine ASA
<b>Radome Colour:</b>	Brilliant White Pantone P 179-1C
<b>Mounting Type:</b>	Standard 1" -14 TPI marine mount & Wall/pole mount

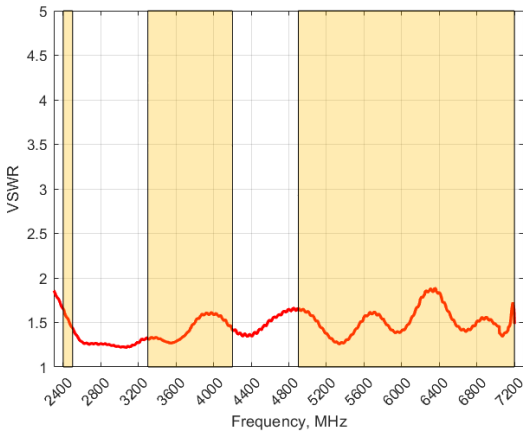
**Environmental Specifications, Certification & Approvals**

<b>Wind Survival:</b>	≤186 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 68
<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 08
<b>Product Safety &amp; Environmental:</b>	Complies with CE and RoHS standards

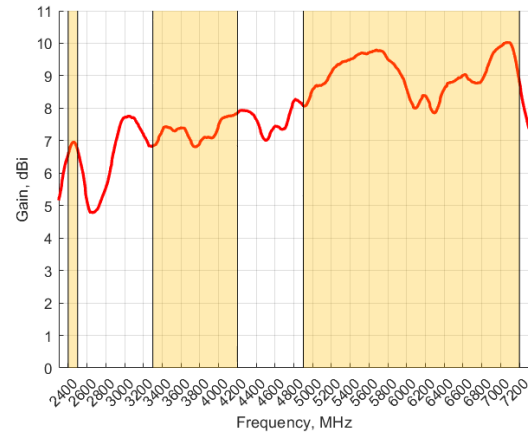


Antenna Performance Plots

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-496 delivers superior performance across all bands with a VSWR of <2:1.

\*VSWR measured without a cable.

Gain\* in dBi

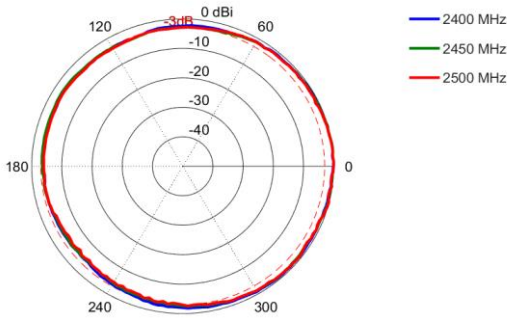
10 dBi is the peak gain across all bands from 2400 – 7200 MHz

Gain @ 2400 – 2500 MHz:	7 dBi
Gain @ 3300 – 4200 MHz:	8 dBi
Gain @ 4900 – 7200 MHz:	10 dBi

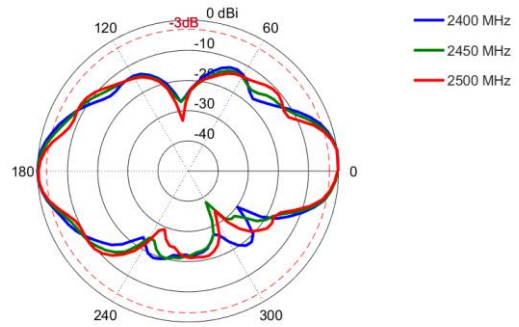
\*Antenna gain measured with polarisation aligned standard antenna

**Radiation Patterns**

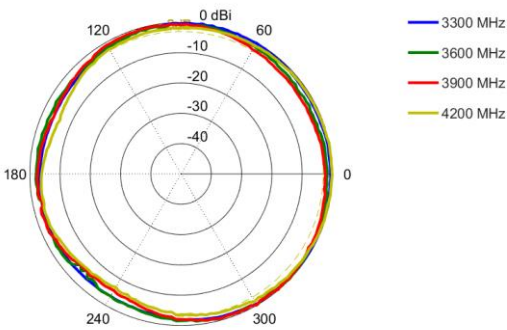
**Azimuth: 2400 - 2500 MHz**



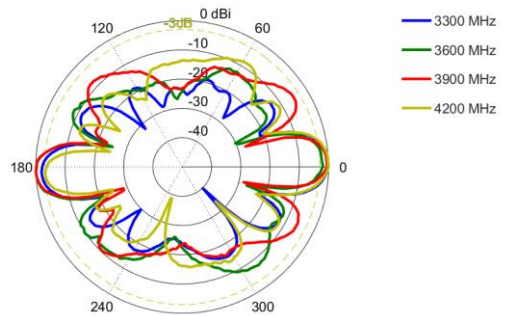
**Elevation: 2400 - 2500 MHz**



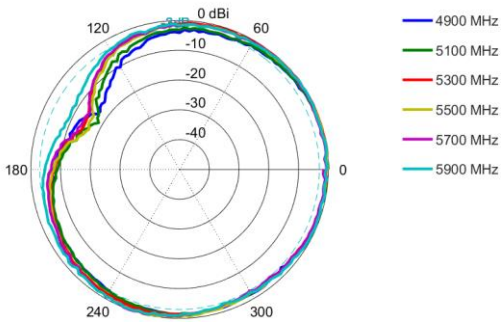
**Azimuth: 3300 - 4200 MHz**



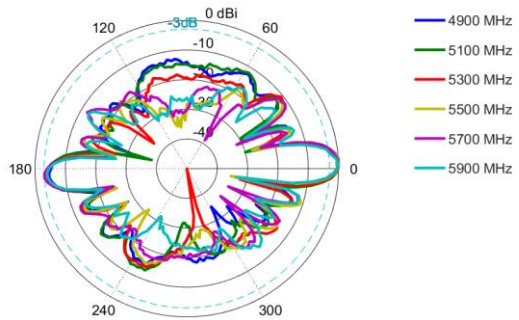
**Elevation: 3300 - 4200 MHz**



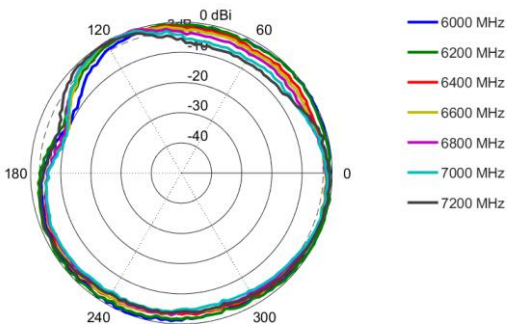
**Azimuth: 4900 - 5900 MHz**



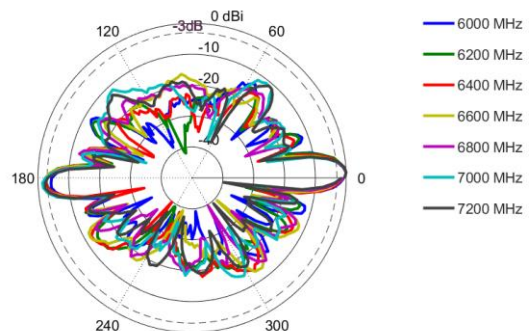
**Elevation: 4900 - 5900 MHz**



**Azimuth: 6000 - 7200 MHz**

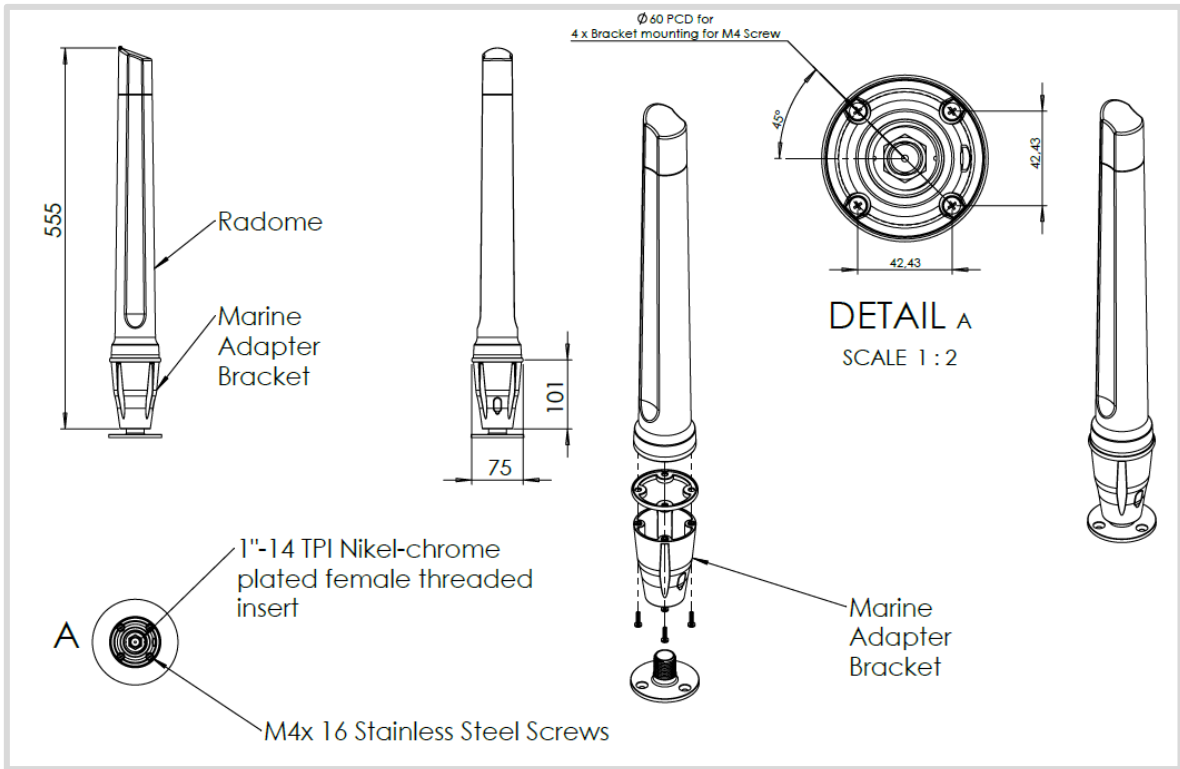


**Elevation: 6000 - 7200 MHz**

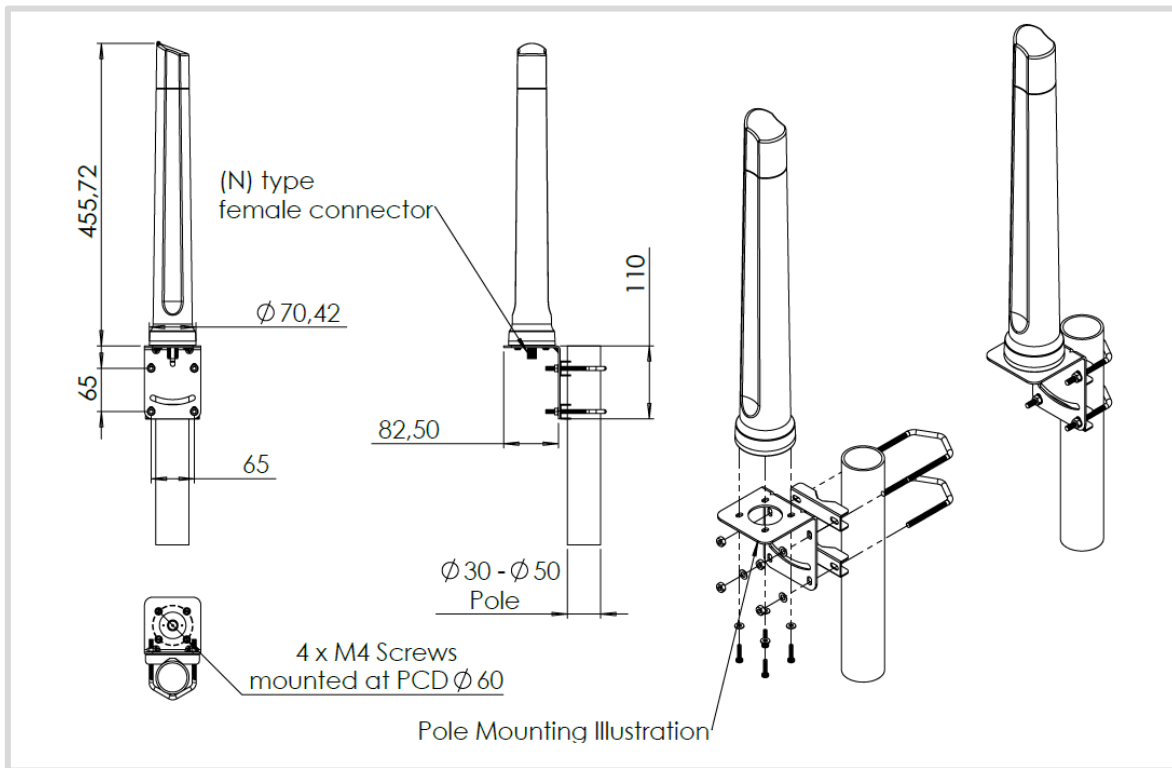


**Technical Drawings**

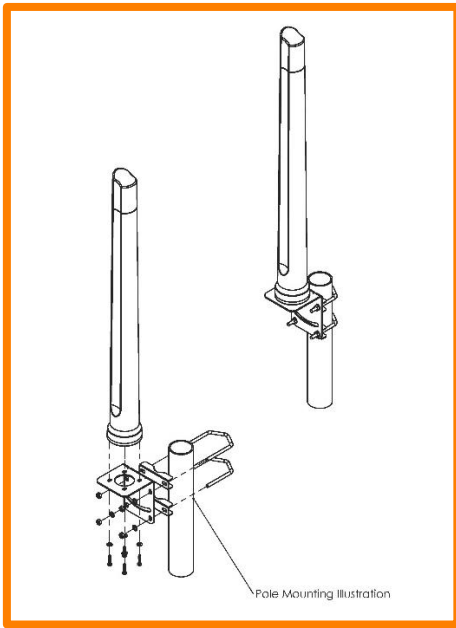
With Standard Marine Mounting:



With Standard L-Bracket Mounting:

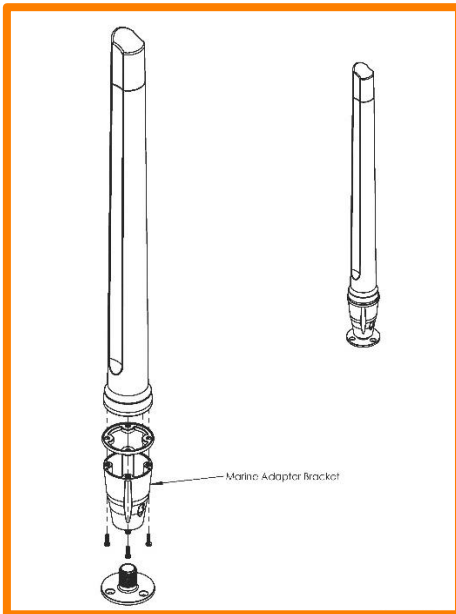


**Mounting Options**



**Pole Mount**

L-Bracket 316 Stainless Steel – included  
(for Ø 30-50mm pole)



**Marine Bracket Mount**

1" -14 TPI female adapter – included

Mounts to standard marine brackets:

- BRKT-37: Flat Mount - Optional
- BRKT-38: Ratchet Mount - Optional
- BRKT-39: Rail Mount - Optional

See Optional Accessories below

Also available: BRKT-41 with 1.25" – 11TPI female adapter (Optional)

See Accessories below

## Optional Accessories



### BRKT-37

Marine flat mount antenna bracket 1"-14 TPI 316 Stainless Steel



### BRKT-38

Marine ratchet rail mount antenna bracket 1"-14 TPI 316 Stainless Steel



### BRKT-39

Heavy duty marine mount antenna bracket 1"-14 TPI 316 Stainless Steel

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

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