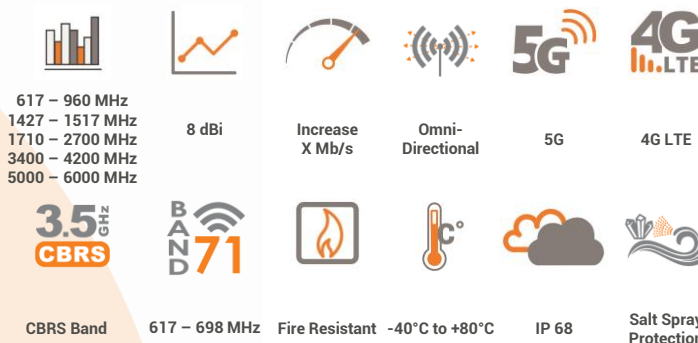


ANTENNAS | OMNI-493 SERIES

OMNI-DIRECTIONAL, MARINE & COASTAL LTE/5G ANTENNA

617 – 6000 MHz, 8 dBi



- Ultra-wideband omni-directional antenna for high performance
- Easy installation with a 1-inch marine adapter bracket included
- Weatherproof (IP68) for tough marine environments
- Optional 316 stainless steel brackets for versatile mounting
- UV and saltwater resistant for long-lasting durability at sea



APPLICATION AREAS

Product Overview

The OMNI-493 is a high-performance, ultra-wideband, omni-directional antenna designed to support contemporary 4G/LTE and future 5G operating frequencies. It offers excellent, balanced gain across all frequencies from 617 to 6000 MHz, with a peak gain of 8 dBi. This makes the OMNI-493 future-proof, covering Band 71 (617 to 698 MHz), as well as the 3400 to 4200 MHz CBRS band, which will be crucial for future 5G applications.

Designed for use in marine and coastal environments, the OMNI-493 provides reliable signal reception in even the harshest conditions, ensuring coverage in all parts of the world. Its IP68-rated enclosure ensures that the antenna can withstand water, salt, and UV exposure, making it robust enough for use at sea or in coastal installations. The superior pattern control across the frequency range makes the OMNI-493 a true high-performance antenna, ideal for maritime communication systems. Its exceptional wideband performance is vital for both LTE and 5G technologies, which rely on features like Carrier Aggregation (CA) to optimize signal reception and data throughput across multiple frequency bands simultaneously.

Features

- High gain omni-directional antenna for enhanced performance
- Covers Band 71 (617 to 698 MHz) and 3.5 GHz 5G bands
- Wideband (617 to 6000 MHz) for future proof connectivity
- Marine-specific design for coastal and offshore use
- Weather resistant (IP68) for durability in harsh environments
- UV stable and saltwater resistant for long-term marine protection

Application Areas

- Marine applications / Yachts / Boats / Ferries
- Enhanced 4G/LTE and 5G reception
- IoT & M2M applications
- Areas with poor data signal reception
- Improve data transmission connection reliability & stability

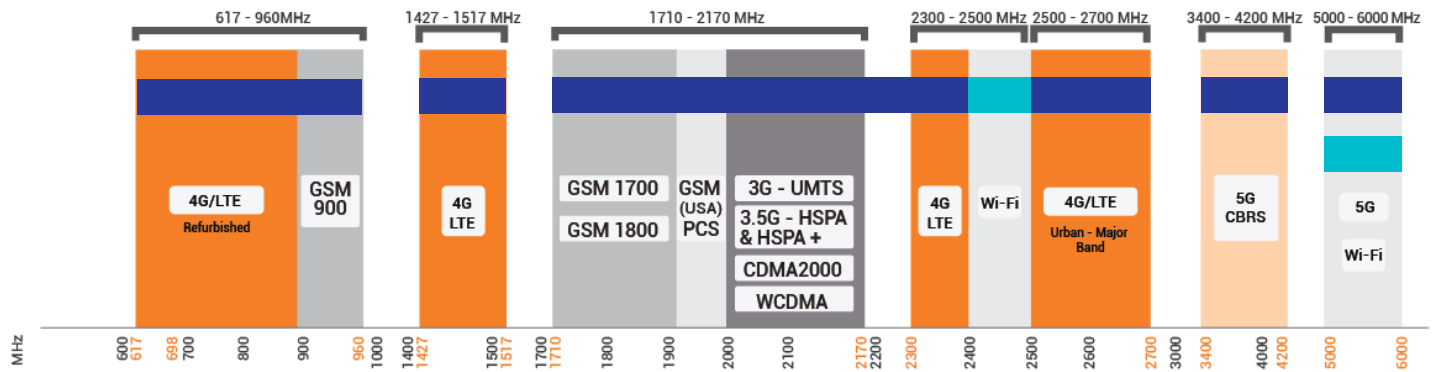


OMNI-493

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Product Specifications may change without prior notice
Revised: March 2025


Frequency Bands

The OMNI-493 is an omni-directional antenna that works from | 617 – 960 MHz | 1427 – 1517 | 1710 – 2700 MHz | 3400 – 4200 MHz | and | 5000 – 6000 MHz |



Indicates the 4G/5G bands on which OMNI-493 works Indicates the WI-FI bands on which OMNI-493 works

Antenna Overview

	
Ports	1
SISO / MIMO	SISO
Frequency Bands	617 - 6000 MHz
Polarisation	Linear Vertical
Peak Gain	8 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

Frequency Bands:	617 – 960 MHz 1427 – 1517 MHz 1710 – 2700 MHz 3400 – 4200 MHz 5000 – 6000 MHz
Gain (Max):	4 dBi @ 617 – 960 MHz 7 dBi @ 1427 – 1517 MHz 8 dBi @ 1710 – 2700 MHz 6.8 dBi @ 3400 - 4200 MHz 6.5 dBi @ 5000 - 6000 MHz
VSWR:	<2:1 across 95% of the bands
Feed Power Handling:	10 W
Input Impedance:	50 Ohm (nominal)
Polarisation:	Linear Vertical
DC Short:	Yes

Product Box Contents

Antenna:	A-OMNI-0493
Mounting Bracket:	1" (14 TPI) Marine Adapter (BRKT-40) & L-bracket (Ø30-50mm Pole)

Ordering Information

Commercial name:	OMNI-493
Order product code:	A-OMNI-0493-V1-01
EAN number:	6009710922262

Mechanical Specifications

Product Dimensions:	646 mm x Ø75 mm (excl. BRKT-40)
Packaged Dimensions:	704 mm x 147 mm x 100 mm
Weight:	0.47 Kg
Packaged Weight:	1.53 Kg
Radome Material:	UV Stable Marine ASA
Radome Colour:	Brilliant White Pantone P 179-1C
Mounting Type:	Standard 1" -14 TPI marine mount & Wall/pole mount

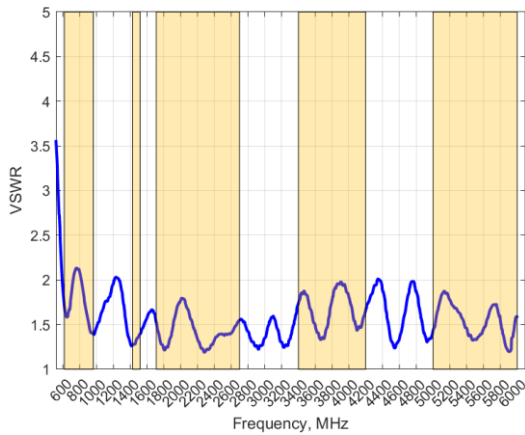
Environmental Specifications, Certification & Approvals

Wind Survival:	<160 km/h
Temperature Range (Operating):	-40°C to +80°C
Environmental Conditions:	Outdoor/Indoor
Water Ingress Protection Ratio/Standard:	IP 68
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 08
Product Safety & Environmental:	Complies with CE and RoHS standards



Antenna Performance Plots

VSWR



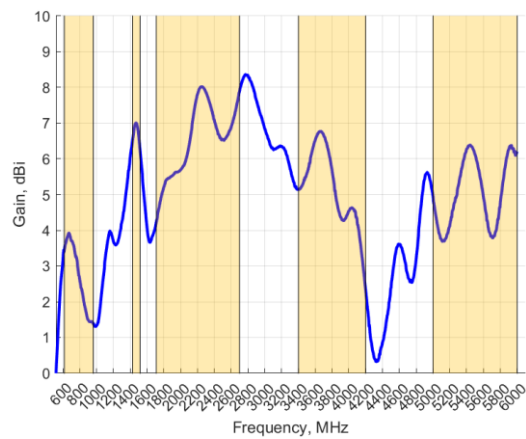
Voltage Standing Wave Ratio (VSWR)*

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-493 delivers superior performance across all bands with a VSWR of <2:1 across 95% of the bands.

*VSWR measured with a 2m low loss cable.

GAIN (EXCLUDING CABLE LOSS)



Gain* in dBi

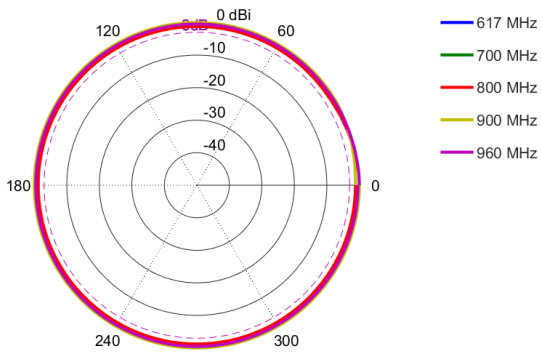
8 dBi is the peak gain across all bands from 617 – 6000 MHz

Gain @ 617 – 960 MHz:	4 dBi
Gain @ 1427 – 1517 MHz:	7 dBi
Gain @ 1710 – 2700 MHz:	8 dBi
Gain @ 3400 – 4200 MHz:	6.8 dBi
Gain @ 5000 – 6000 MHz:	6.5 dBi

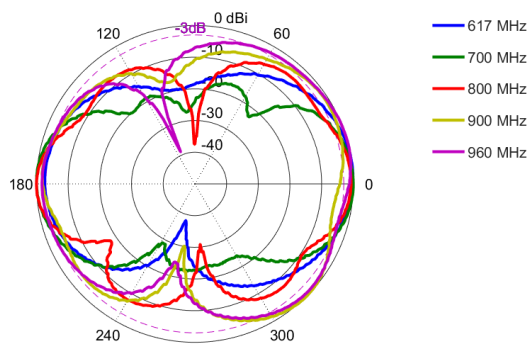
*Antenna gain measured with polarisation aligned standard antenna

Radiation Patterns

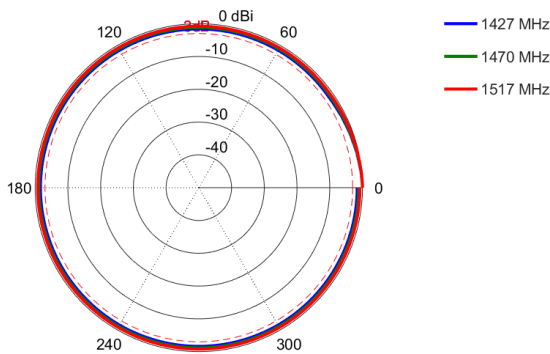
Azimuth: 617 - 960 MHz



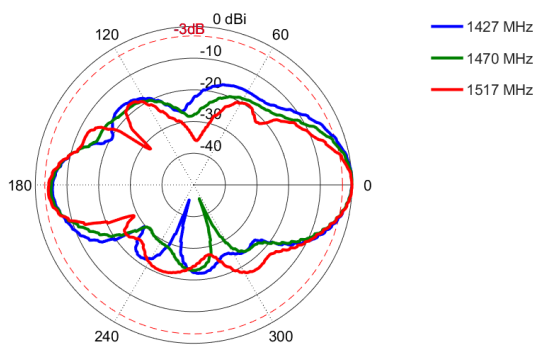
Elevation: 617 - 960 MHz



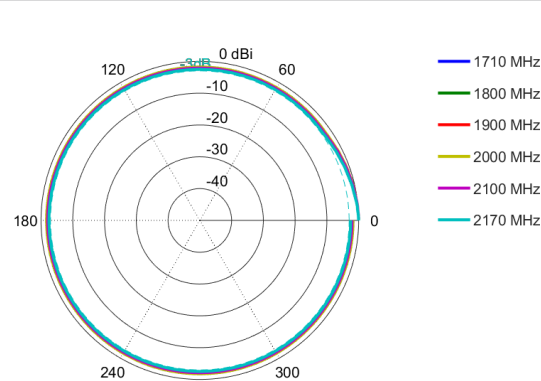
Azimuth: 1427 - 1517 MHz



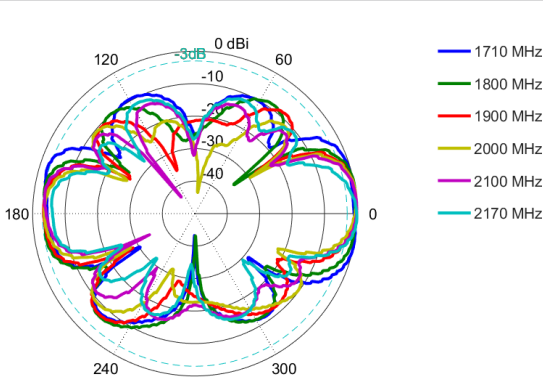
Elevation: 1427 - 1517 MHz



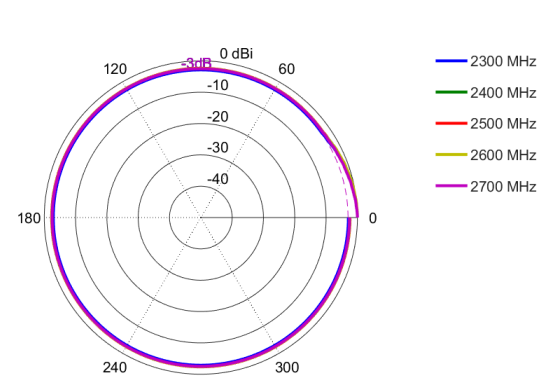
Azimuth: 1710 - 2170 MHz



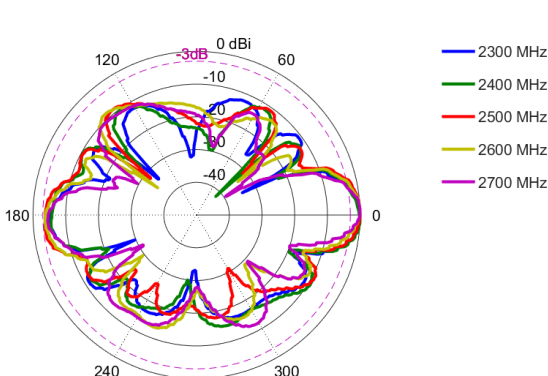
Elevation: 1710 - 2170 MHz



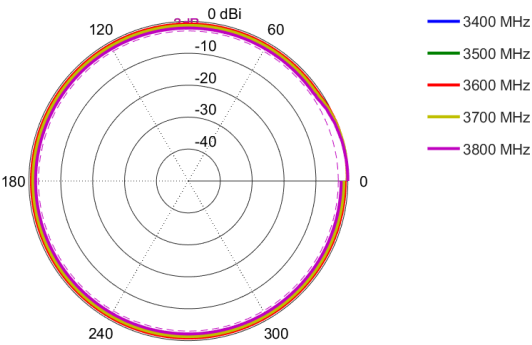
Azimuth: 2300 - 2700 MHz



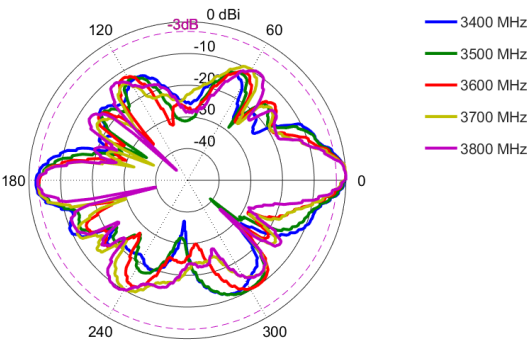
Elevation: 2300 - 2700 MHz



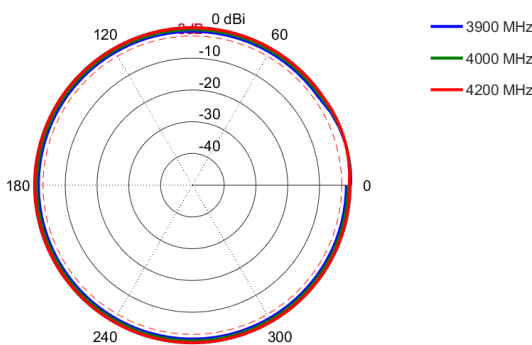
Azimuth: 3400 - 3800 MHz



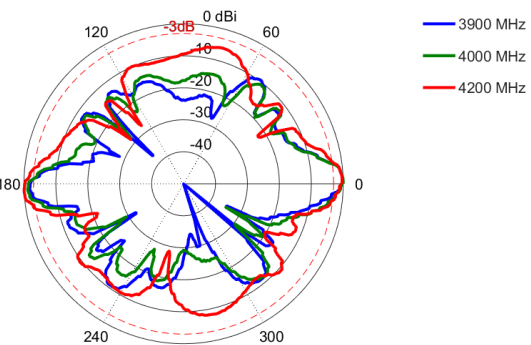
Elevation: 3400 - 3800 MHz



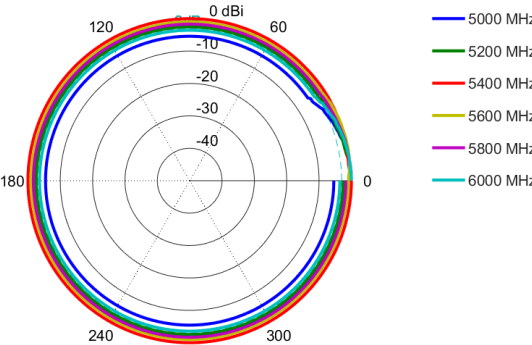
Azimuth: 3900 - 4200 MHz



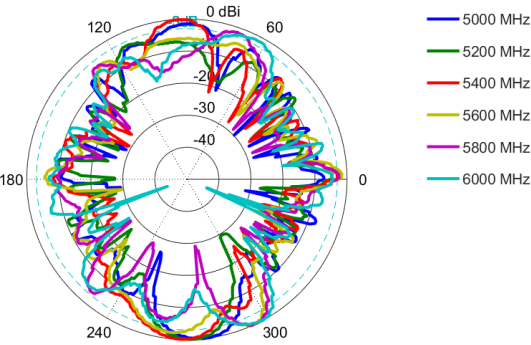
Elevation: 3900 - 4200 MHz



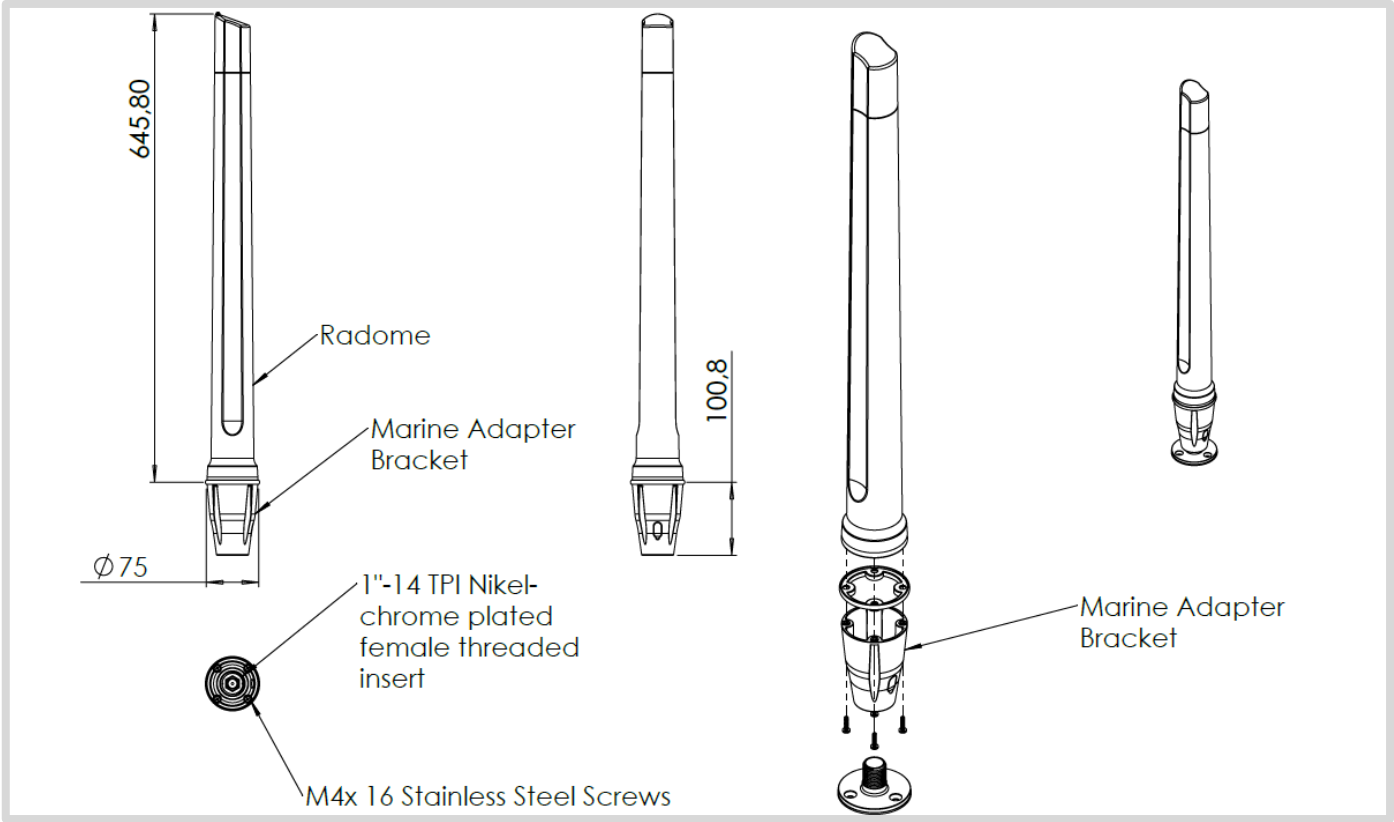
Azimuth: 5000 - 6000 MHz



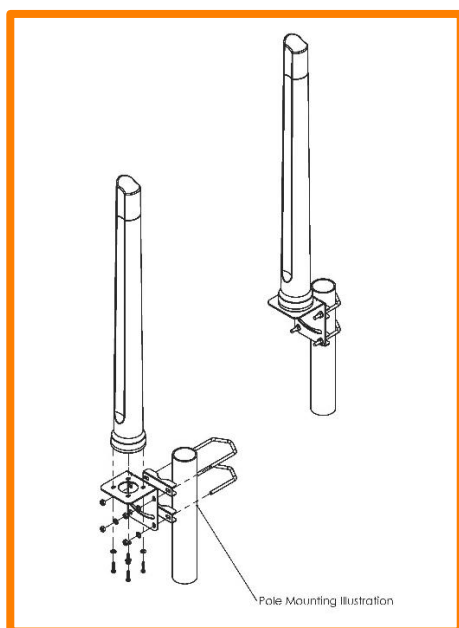
Elevation: 5000 - 6000 MHz



Technical Drawings

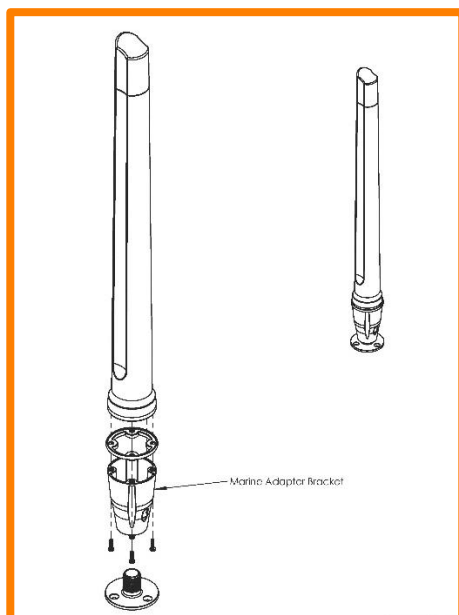


Mounting Options



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

CONTACT POYNTING

Poynting Antennas (Pty) Ltd - Head Office

Unit 4, N1 Industrial Park,
Landmarks Avenue,
Samrand, 0157, South Africa

Phone: +27 (0) 12 657 0050

E-mail: info@poynting.tech

International Email: sales-global@poynting.tech

Poynting Europe

Regus Business Center Neue Messe Riem
Kronstadter Straße 4
81677 München
Germany

Phone: +49 89 7453 9002

E-mail: sales-europe@poynting.tech

Poynting USA

1804 Owen Court, Suite 104,
Mansfield,
TX 76063
USA

Phone: +1 817 533-8130

E-mail: sales-us@poynting.tech