

ANTENNAS | OMNI-400 SERIES

OMNI-DIRECTIONAL, MARINE & COASTAL LTE ANTENNA

698 - 2700 MHz, 7.5 dBi (US Specific)



698 - 960 MHz: 1710 - 2170 MHz: 2300 - 2700 MHz	7.5 dBi	Increase x Mb/s	Omni- Directional	IoT	4G LTE
2.4 - 2.5 GHz	IP 67	-40°C to +70°C	Fire Resistant		

- High performance omni-directional marine antenna
- Easy mounting with feed through 1-inch marine standard adapter bracket included
- Robust and all-weather proof for harsh conditions at sea (IP 67)
- Various 316 stainless steel mounting brackets available optionally
- UV and saltwater protected against tempestuous weather conditions

APPLICATION AREAS

- Urban
- Rural/Farm
- Marine
- Transportation

Product Overview

The OMNI-400 is a high-performance marine antenna. This antenna uses a standard 1-inch (14 TPI) marine mount for simplified installation to most marine attachments. The ultra-wide frequency band covers all contemporary LTE operating frequencies with excellent balanced gain across all frequencies. Higher frequencies are not compromised, and the antenna design allows Poynting to have superior pattern control over the entire frequency range making the OMNI-400 a true high performance omni-directional antenna. The OMNI-400 guarantees signal reception almost everywhere, allowing it to be usable in all parts of the world. Poynting Antennas achieves this through new antenna configuration using multiple dipoles and a uniquely (patented) feed network.

Features

- High gain omni-directional antenna
- Purpose built antenna for marine and coastal applications
- Lightweight
- UV and saltwater resistant
- Robust and weather resistant
- Operational in the 2.4 – 2.5 GHz Wi-Fi band

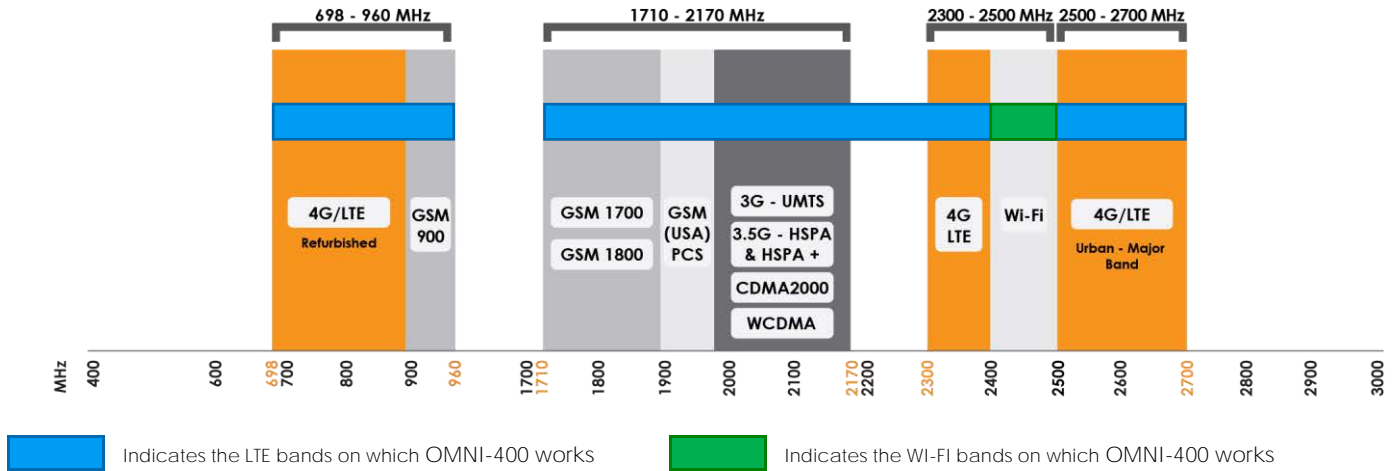
Application Areas

- 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-400 is an omni-directional antenna that works from 698 - 960 MHz | 1710 - 2170 MHz | 2300 – 2700 MHz



Antenna Overview

Ports	1
SISO / MIMO	SISO
Frequency Bands	698 – 2700 MHz
Polarisation	Linear Vertical
Peak Gain	7.5 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:	698 - 960 MHz 1710 - 2170 MHz 2300 – 2700 MHz
Gain (max):	4 dBi @ 698-960 MHz 7 dBi @ 1710-2170 MHz 7.5 dBi @ 2300-2700 MHz
VSWR:	<2.5:1 across 90% of the band
Feed power handling:	10 W
Input impedance:	50 Ohm (nominal)
Coax cable loss:	Optional cable dependent
DC short:	Yes

Product Box Contents

Antenna:	A-OMNI-0400
Mounting bracket:	Mounts to standard 1" -14 T male threads and universal L-bracket

Ordering Information

Commercial name:	OMNI-400
Order product code:	PY-M-BNF00-07W-00-MA
EAN number:	0707273469434

Mechanical Specifications

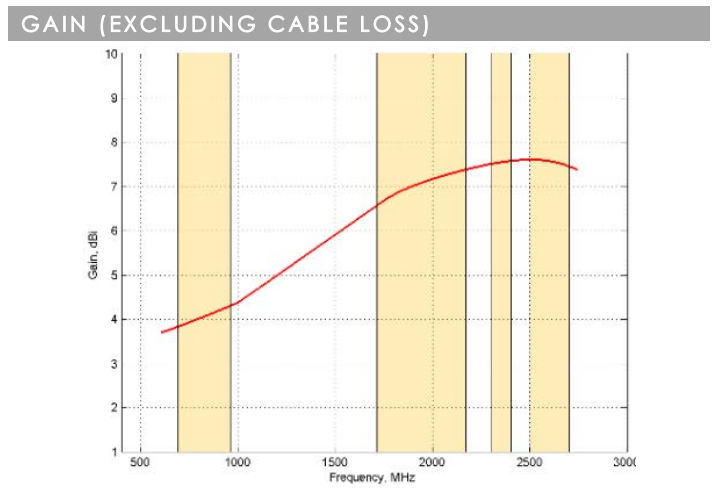
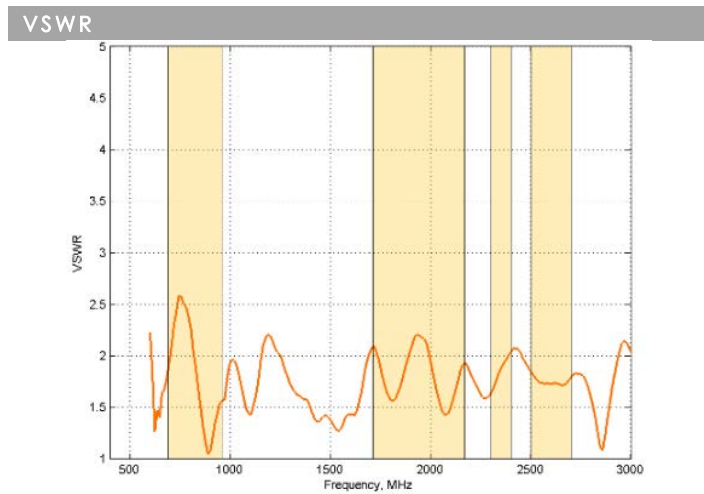
Product dimensions:	555 mm x 75 mm
Packaged dimensions:	580 mm x 95 mm x 95 mm
Weight:	0.576kg
Packaged weight:	1.245kg
Radome material:	ABS (Halogen Free)
Radome colour:	Pantone – Cool Gray (1C) RAL - 7047
Mounting Type:	Standard 1" -14 TPI marine mount & Wall/pole mount

Environmental Specifications, Certification & Approvals

Wind Survival:	<186 km/h
Temperature Range (Operating):	-40°C to +70°C
Environmental Conditions:	Outdoor/Indoor
Water ingress protection ratio/standard:	IP 67
Salt Spray:	MIL-STD 810F/ASTM B117
Operating Relative Humidity:	Up to 98%
Storage Humidity:	5% to 95% - non-condensing
Storage Temperature:	-40°C to +70°C
Enclosure Flammability Rating:	UL 94-HB
Impact resistance:	IK 08
Product Safety & Environmental:	Complies with CE and RoHS standards



Antenna Performance Plots



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-400 delivers superior performance across all bands with a VSWR of 2.5:1 or better across 90% of the bands.

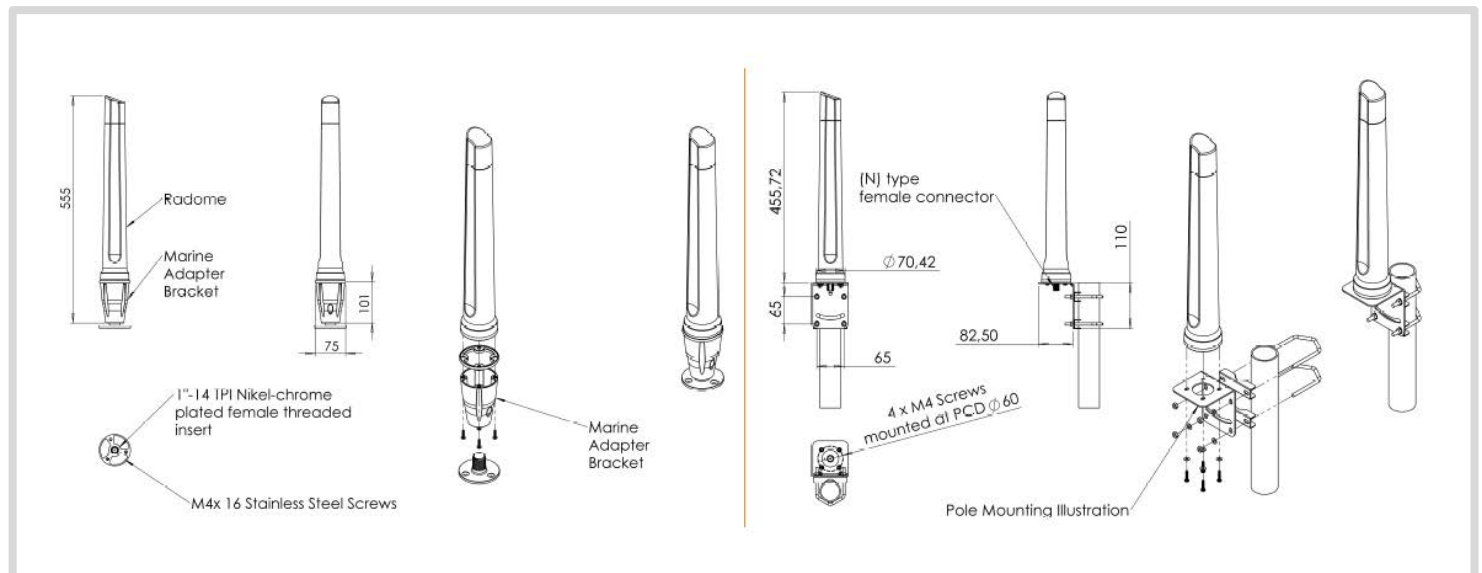
Gain* in dBi

7.5 dBi is the peak gain across all bands from 698 – 2700 MHz

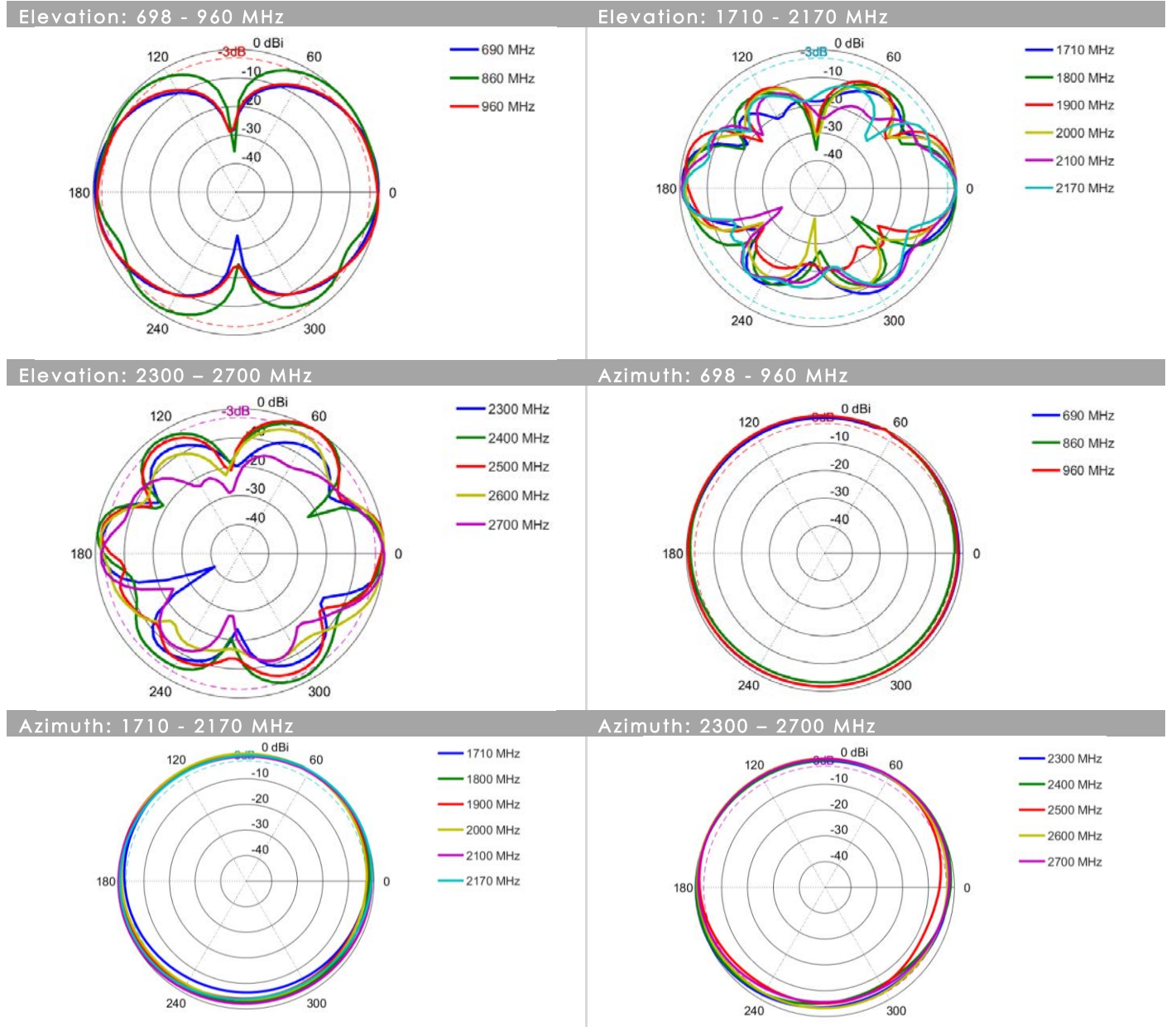
Gain @ 698 - 960 MHz:	4 dBi
Gain @ 1710 - 2170 MHz:	7 dBi
Gain @ 2300 – 2700 MHz:	7.5 dBi

*Antenna gain measured with polarisation aligned standard antenna

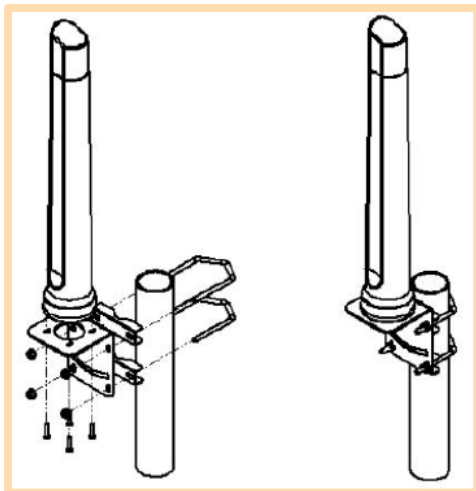
Technical Drawings



Radiation Patterns

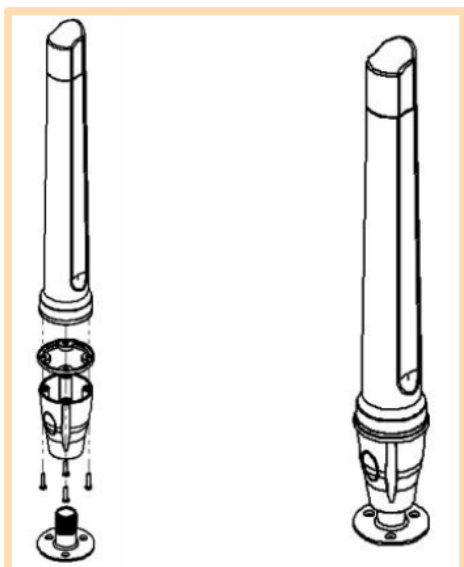


Mounting Options



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)

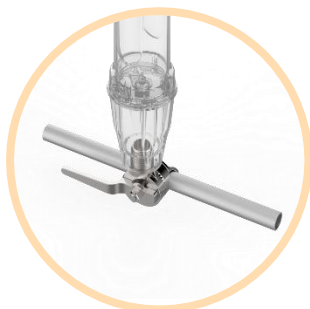
See Accessories below

Additional Accessories



BRKT-37

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



BRKT-38

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



BRKT-39

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

Extension Cables

Up to 15m HDF 195

Others

Various connectors and installation poles and brackets available

See accessories technical specifications on <https://usatcorp.com/poynting/>

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