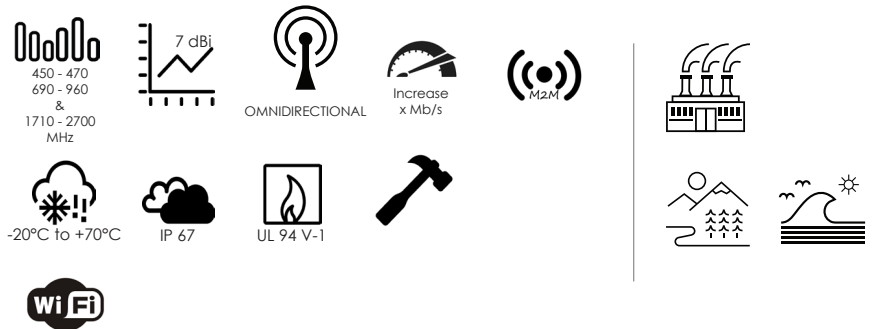


**ANTENNAS | OMNI-0291**

# OMNI-291

## HIGH GAIN LINEAR MARINE & COASTAL 450MHZ – 2700MHZ ANTENNA



- **Next Generation Marine qualified High Performance Omni Directional Antenna**
- **Easy mounting with feed through 1 inch marine standard mounts**
- **Robust and All weather proof**
- **Various mounting options available\***
- **UV and Saltwater protected against tempestuous weather conditions.**

### Product Overview

The OMNI-291 is a unique new design with improved electrical performance and using a standard 1 inch marine mount. The ultra-wide 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-291 a true high performance omni-directional antenna. Usable in all parts of the world, the OMNI-291 guarantees signal reception almost everywhere. Poynting Antennas achieves this through new antenna configuration using multiple dipoles and a unique (patented) feed network. The antenna is future proof as it covers the 450 MHz LTE frequency getting more and more popular in various regions and countries!

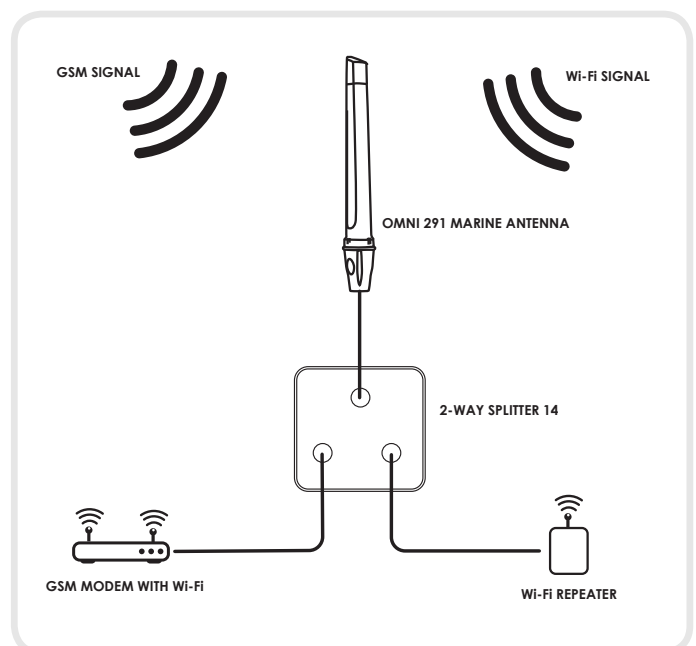
### Features

- Medium gain omni-directional antenna
- The antenna is purpose-built for marine and coastal applications.
- Lightweight
- UV and Salt-water resistant
- Vandal resistant
- IS (intrinsic safe) version available on request
- 2.4 - 2.5 Ghz band can be used as WiFi antenna

### Application areas

- Marine applications / Yachts/Ferry
- Machine to machine (M2M)
- Poor data signal reception (indoor or outdoor)
- Slow data transmission connection
- Unstable connection
- Increase system transmission reliability
- Wi-Fi Applications


### Antenna configuration for Dual GSM / Wi-Fi

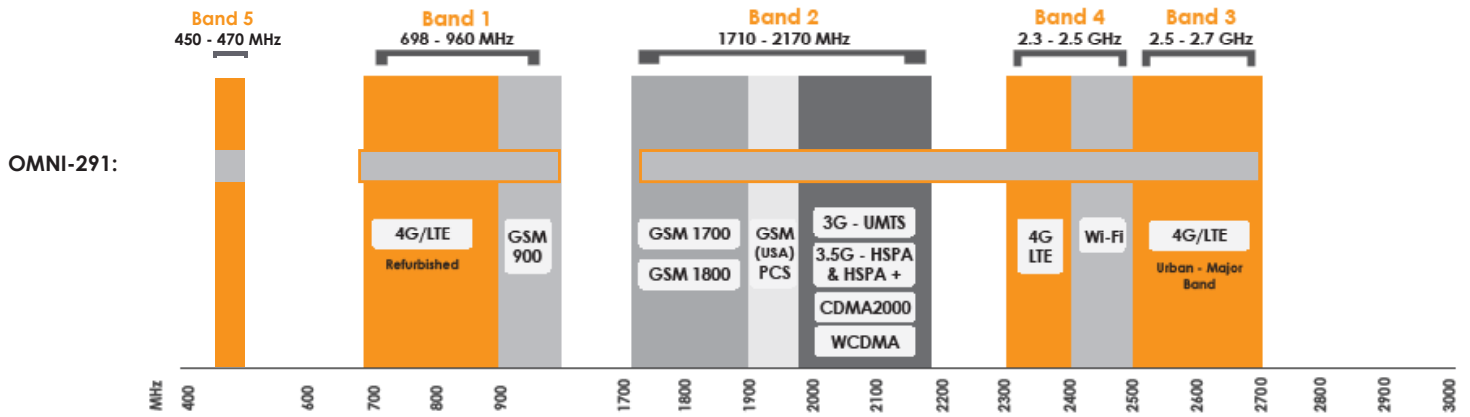


\* Available soon

## Frequency bands

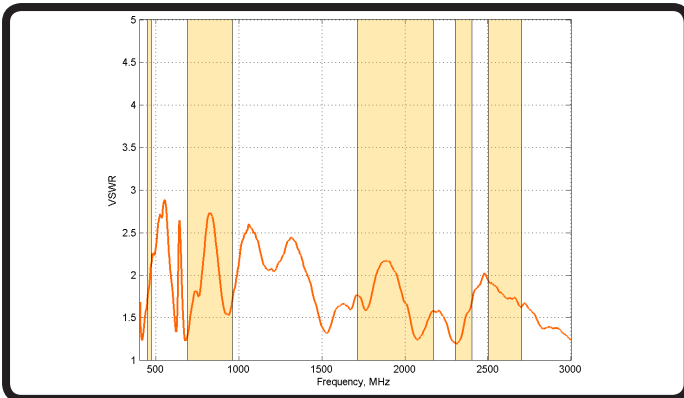
The OMNI - 291 is a 450 - 470, 690 - 960 & 1710 - 2700 MHz LTE Antenna and 2.4 - 2.5GHz Wi-Fi band.

 Indicates the bands on which this antenna works



## Antenna Performance Plots

VSWR:

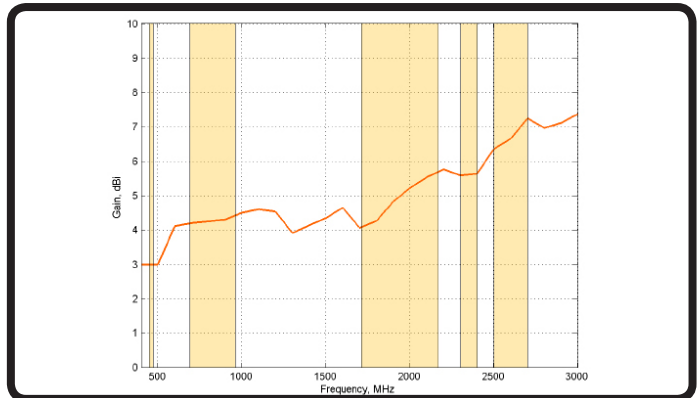


**Voltage Standing Wave Ratio (VSWR)**

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 2.5:1.

The OMNI-291 delivers superior performance across all bands with a VSWR of 2.5:1 or better.

Gain: (excluding cable loss)



**Gain\* in dBi**

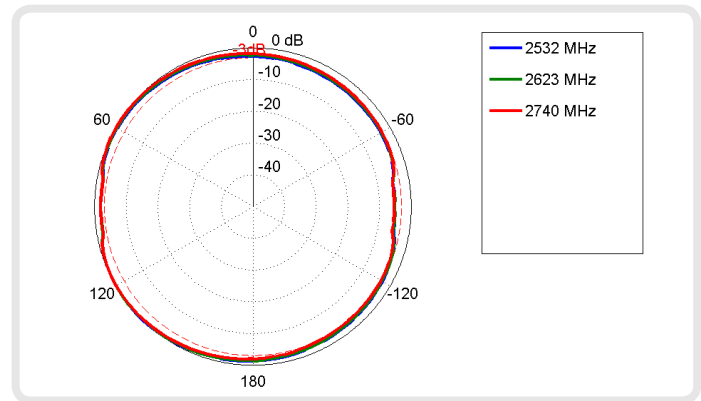
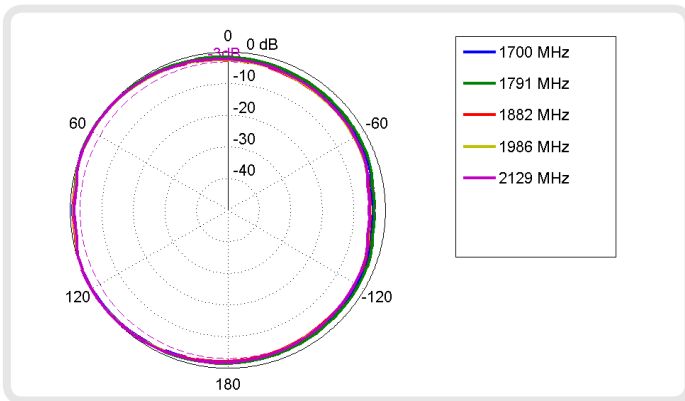
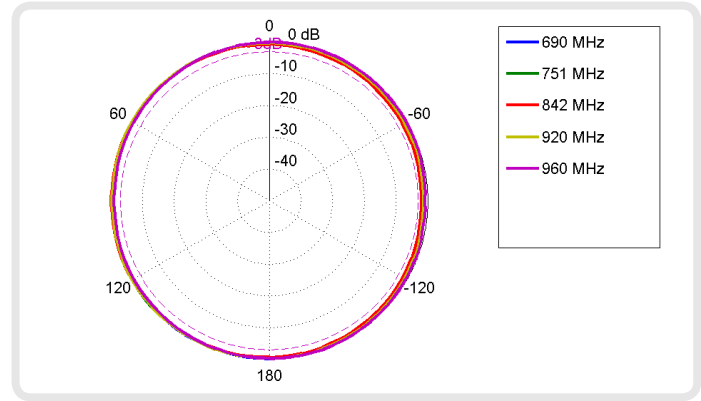
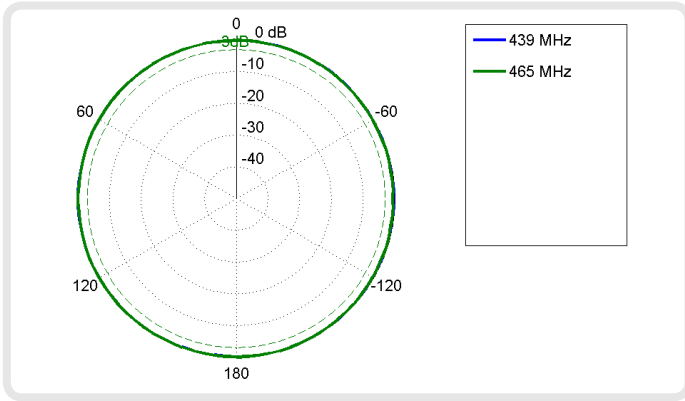
7 dBi is the peak gain across all bands from 450 - 2700 MHz

Gain @ different bands: Band 5	3 dBi @ 450-470 MHz
Gain @ different bands: Band 1	4.5dBi @ 690-960 MHz
Gain @ different bands: Band 2,3 & 4	7dBi @ 1710-2700MHz
Gain @ WiFi band:	5.5dBi @ 2400-2500MHz

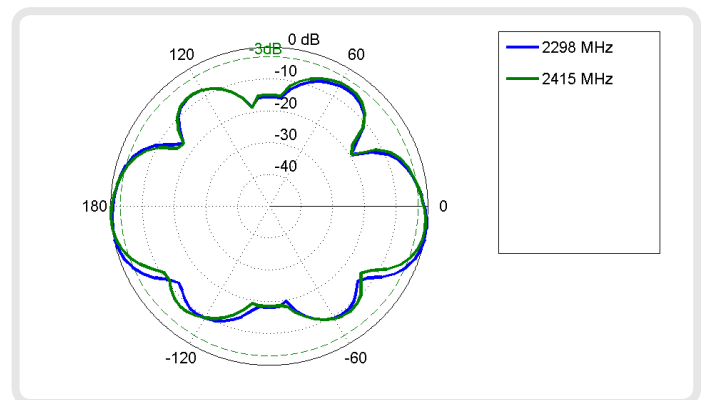
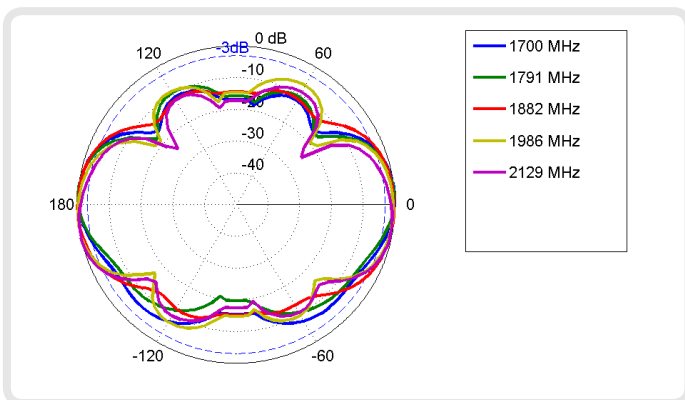
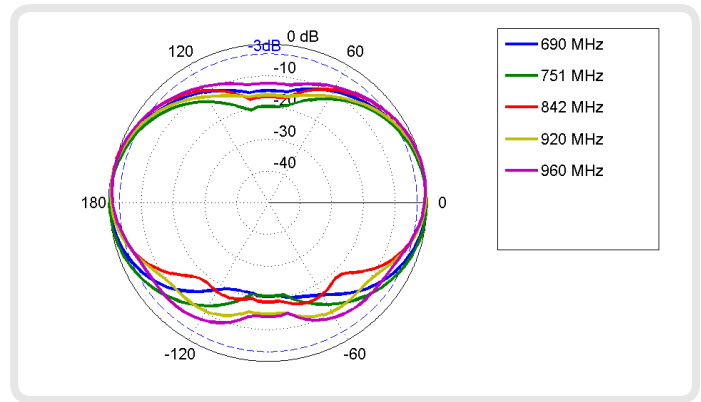
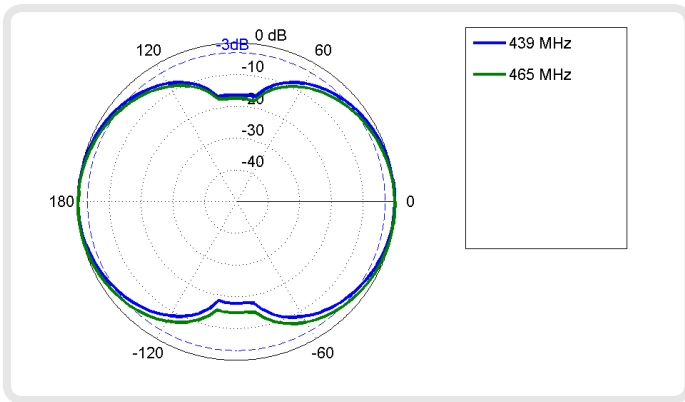
\*Antenna gain measured with polarisation aligned standard antenna

# Radiation Patterns

## H Plane:



## E Plane:



## Electrical Specifications

Frequency Bands:	450 - 470MHz 690 - 960MHz 1710 - 2700MHz
Gain (Max):	7dBi
VSWR:	< 2.5:1 over 90% of the band
Feed Power Handling:	10 W
Input impedance:	50 Ohm (nominal)
Polarisation:	Linear Vertical
Cable loss:	Optional cable dependant
DC Short:	Yes

## Environmental Specifications

Wind Survival:	<160km/h
Temperature Range (Operating):	-20°C to +70°C
Environmental Conditions:	Outdoor/Indoor
Operating Relative Humidity:	Up to 98%
Storage Humidity:	5% to 95% - non condensing
Storage Temperature:	-20°C to +70°C

## Ordering Information

Commercial name:	OMNI -291
Order Product Code:	A-OMNI-0291
EAN number:	0707273468925

## Additional Accessories Available

Extension Cables:	Up to 15m HDF 195
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Various connectors available

Installation poles and brackets available



BRKT - 39



BRKT - 37



BRKT - 38

For more detailed information and availability in your region, visit our web site: [www.poynting.tech](http://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:** [sales@poynting.co.za](mailto:sales@poynting.co.za)

## Mechanical Specifications

Product Dimensions (L x W):	560 x 75mm
Packaged Dimensions:	580 x 95 x 90mm
Weight:	800 g
Packaged Weight:	950 g
Radome Material:	ABS (Halogen Free)
Radome Colour:	Pantone - Cool Gray (1C) RAL - 7047

## Product Box Contents

Antenna:	A-OMNI-0291
Mounting Bracket:	Mounts to standard 1" -14 T male threads and Universal L-bracket
Cable Length:	N/A
Cable Type:	N/A
Connector:	N-Type Female (Silver/Nickel Plated) <i>The connector is factory mounted to the antenna</i>

## Certification Approvals and Standards

Flammability rating:	UL 94-V1 EN 13823
Water Ingress Protection Ratio/Standard:	IP 67
Impact resistance:	IK 08
Salt Spray:	MIL-STD 810F /ASTM B117
Product Safety:	Complies with UL, CE, EN, CSA and IEC standards

