OMNI-291
HIGH GAIN LINEAR MARINE & COASTAL 450MHZ – 2700MHZ ANTENNA

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
• WiFi 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.

**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 polarization aligned standard antenna
Radiation Patterns

H Plane:

- 439 MHz
- 465 MHz
- 590 MHz
- 751 MHz
- 842 MHz
- 920 MHz
- 960 MHz
- 1700 MHz
- 1791 MHz
- 1882 MHz
- 1986 MHz
- 2129 MHz
- 2532 MHz
- 2625 MHz
- 2740 MHz

E Plane:

- 439 MHz
- 465 MHz
- 590 MHz
- 751 MHz
- 842 MHz
- 920 MHz
- 960 MHz
- 1700 MHz
- 1791 MHz
- 1882 MHz
- 1986 MHz
- 2129 MHz
- 2236 MHz
- 2415 MHz
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

Product Box Contents

Antenna: A-OMNI-0291

Mounting Bracket:
- Mounts to standard 1” - 14 T male threads
- Universal L-bracket

Cable Length: N/A

Cable Type: N/A

Connector: N-Type Female (Silver/Nickel Plated)

The connector is factory mounted to the antenna

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

Various connectors available

Installation poles and brackets available

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

Contact Poynting

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Certification Approvals and Standards

Flammability rating: UL 94-V1

Water Ingress Protection Ratio/Standard: IP 67

Impact resistance: IK 08

Salt Spray: MIL-STD 810F /ASTM B117

Complies with UL, CE, EN, CSA and IEC standards

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

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