

## Omni-directional OMNI Antenna | IoT & M2M Applications

### KEY FEATURES

- Omni-Directional LTE and 5G antenna
- Wideband frequency from 698 to 3800 MHz
- Medium gain antenna with a peak gain of 2.5dBi
- Works on all Cellular LTE networks across the world, including new 3.5 GHz LTE/5G band
- 5G Ready; includes 3.5 GHz CBRS band
- UV Stable Enclosure
- Waterproof & dustproof antenna (IP68)
- Robust and strong design to survive adverse weather conditions
- Able to withstand winds of up to 250 km/h
- DC grounded to prevent static discharge from damaging router equipment

### KEY APPLICATION AREAS

- Smart Metering Applications: Gas & Water Systems and Utilities M2M & IoT
- Other applications with harsh environments such as industrial buildings, and oil & gas refineries
- High-end industrial grade router applications
- Industrial factory automation, robot machinery and other M2M systems
- Mining vehicles & machinery communications, telemetry, and automation (M2M & IoT)
- Can be used for commercial, industrial, residential, and urban applications, where high IP rating antennas are required
- Farming & Agricultural M2M & IoT

#### OMNI Antenna Series

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Revised: October 2020



Regulatory Compliance: RoHS 2011/65/EU Compliant | ISO 9001:2015

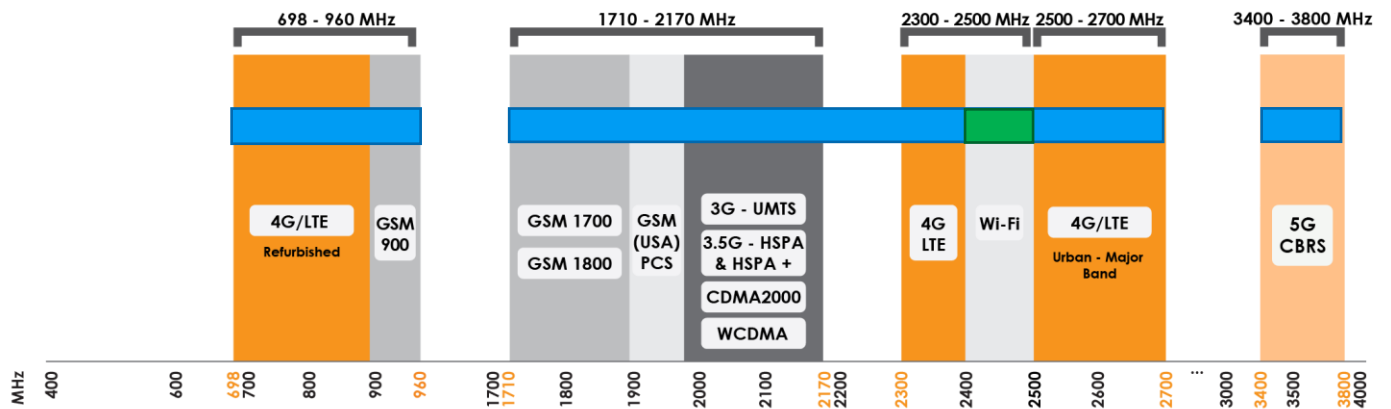
Document version: Product Brief OMNI-403 and OMNI-404 v1.0

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## Product Overview

Poynting's new OMNI-297 antenna, forms part of our new "Rhyno" antenna range and offers a small profile antenna for use in the IoT/M2M, Smart Meter, Smart Utilities, and Industrial markets. This antenna offers a wideband LTE/5G antenna within a rugged enclosure. Due to excellent engineering and a solid design, this antenna provides exceptional performance for its size.

The OMNI-297 was designed for superior pattern control across the entire frequency range of operation, making it an exceptional omni-directional antenna for its size and application. The antenna offers wideband coverage and operates from 698 to 3800 MHz, covering the contemporary LTE/5G bands as well as the 3.5 GHz CBRS bands. Therefore, providing reception capability for the most popular international LTE & 5G bands. The frequency bands covered by the OMNI-297 are illustrated in the following graph.



 Indicates the LTE/5G bands covered by the OMNI-297

 Indicates the Wi-Fi bands covered by the OMNI-297

Conventional antenna designs, such as an array of dipoles and other similar designs, do not achieve the necessary characteristics for a wide impedance and gain bandwidth antenna, while demanding near ideal radiation patterns over the whole bandwidth. Poynting Antennas has achieved this performance using an innovative design whereby the impedance, gain and radiation patterns are harmonised over the entire frequency range, providing superior performance across all the bands. This is an important factor for LTE and future 5G technologies, where they rely on capacity and throughput enhancing features such as Carrier Aggregation (CA) to provide the best possible reception and throughput over multiple frequency bands simultaneously. Poynting Antennas are well known to outlast the next technologies and the OMNI-297 antenna is no different.

The antenna was specifically designed to be rugged and for harsh environmental conditions and features an IP68 protection rating against water ingress. The antenna enclosure is made from UV Stable ASA plastics, which means the antenna can be



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used in highly corrosive environments, including chemical and toxic environments. The ruggedness of the antenna exceeds the environmental specifications from most of the competitors.

The antenna comes standard with an L-bracket, which can be used for multiple mounting options. With the additional L-bracket the antenna can be pole mounted with pipe clamps or the antenna can be wall/box mounted with knock-in screws that come standard.

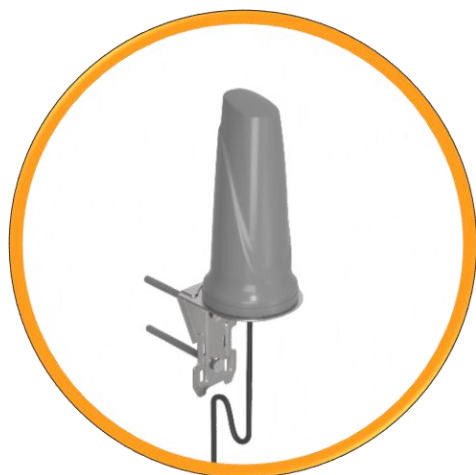
The antenna complies with the relevant CE, EN, CSA, RoHS and IEC Standards as stated in our technical sheets. It is also rated for temperatures from -40°C to +80°C and will survive winds of up to 190km/h with a rating of IK10 impact resistance.

## Mounting Options



### Pole Mount

Pole mount used with pipe clamp and bracket (included)



### Wall Mount

Wall/Box mount using 2 x knock-in screws with bracket (included)