



Ultra-Wideband 5G/LTE Antenna: 617 – 960 MHz | 1710 – 2700 MHz | 3400 – 3800 MHz

Introducing one of the best LTE/5G Omni-directional antennas for  
**RURAL & MARINE**

**OMNI-293**

**OMNI-493**

**617-3800 MHz | 9 dBi**

## Omni-Directional Antenna | Rural & Marine Applications

### KEY FEATURES

- Exceptional omni-directional 5G/LTE antennas
- Ultra-wideband performance; 617 - 3800 MHz
- High gain performance; peak gain of 9 dBi
- Future proof antenna with 5G/LTE coverage
- Covers LTE Band 71, 617 – 698 MHz
- Waterproof & Dustproof
  - The OMNI-293 rural antenna complies with IP65
  - The OMNI-493 marine antenna complies with IP68
- UV Stable ASA enclosure material
- Suitable for marine and coastal applications, as it is salt water protected (OMNI-493)
- Robust and strong antenna design to survive adverse weather conditions
- DC grounded to prevent static discharge from damaging router equipment
- Works on all cellular 5G/LTE networks across the world.

### KEY APPLICATION AREAS

- OMNI-293 Specific:
  - Commercial, industrial, urban and rural applications, where reliable 5G/LTE reception is required
  - Smart Environmental, Water Systems and Utilities M2M & IoT
  - Farming & Agricultural M2M & IoT
  - Mining and Tunnelling environment
- OMNI-493 Specific:
  - Marine applications, such as: super yachts, commercial vessels, (river-) cruise ships, ferries, private yachts, and towing-vessels
  - Buoy IoT applications
  - Other applications with harsh environments such as harbour buildings, buoys, pontoons, and smaller boats
  - Coastal and other salt corrosive environments along the coastline, lake sides and other high humid areas
  - Chemical & toxic environments

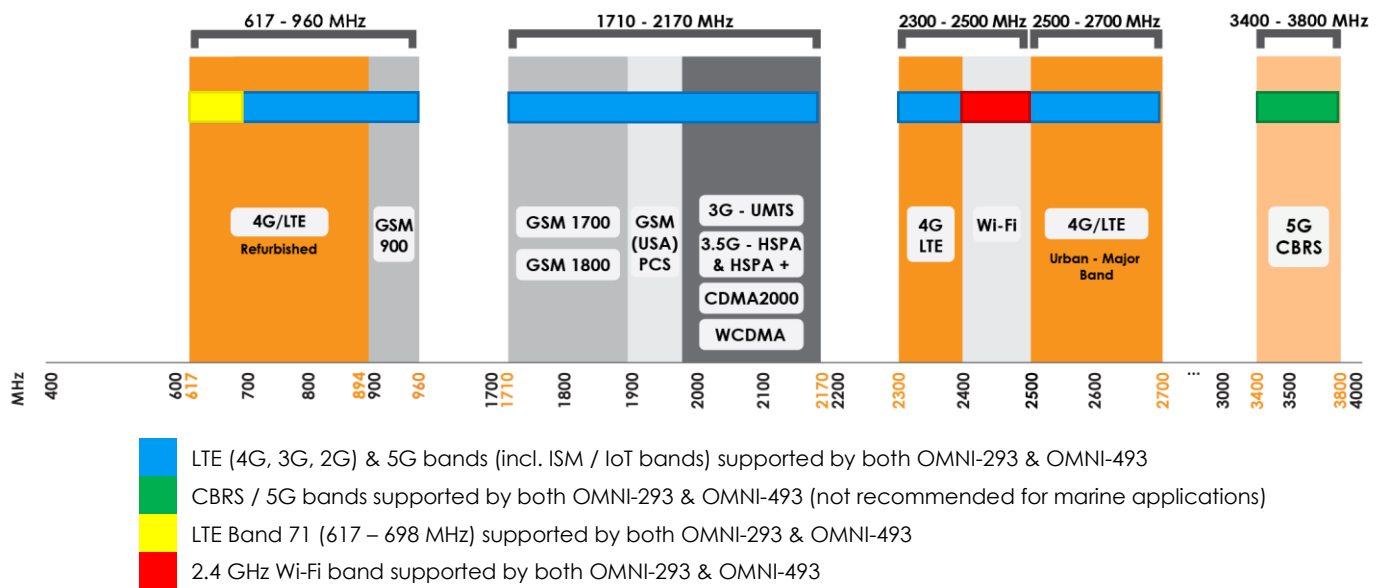


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## Product Overview

Poynting introduces its new OMNI-293 and OMNI-493 antennas, which are based on the very popular OMNI-291 and OMNI-292 antennas. These antennas are our best all-round LTE/5G omni-directional antennas. The antennas share the same physical radiation element within the antenna enclosure, which results in similar performance characteristics. These two new antennas do not replace any of our existing OMNI-antennas, but rather expands our range of omni-directional antennas.

These wideband LTE/5G, omni-directional antennas cover the contemporary 617 MHz to 3800 MHz bands, which includes the up-and-coming LTE Band 71, 617 to 698 MHz, as well as the 3.5 GHz CBRS bands. The antennas were designed for superior pattern control across the entire frequency range, making the OMNI-293 and OMNI-493 exceptional omni-directional antennas. These antennas therefore provide improved reception capability on the most popular 5G/LTE cellular bands. The frequency bands covered by these antennas are illustrated in the below graph.



The antennas achieve exceptional omni-directional performance, with a medium gain and wide vertical beamwidth in the lower frequency bands. While a high gain and narrower vertical beamwidth is achieved in the higher frequency bands. This exceptional omni-directional performance was achieved by the unique antenna design. Conventional antenna designs, such as an array of dipoles and other similar designs, do not provide the necessary characteristics for a wide impedance and gain bandwidth antenna, while demanding near ideal radiation patterns over the whole bandwidth. Poynting has achieved this performance by using an innovative technology whereby the impedance, gain and radiation patterns are harmonised over the entire frequency range, providing superior performance at all its frequency bands.

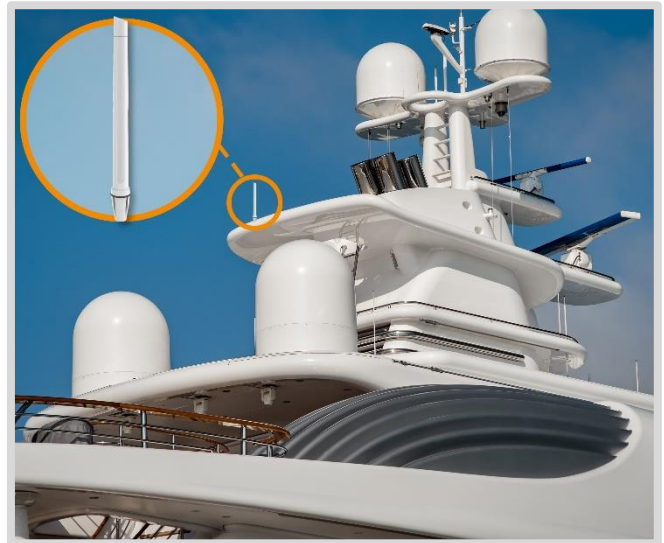
The exceptional wideband performance is an important factor for LTE and future 5G technologies, where these technologies rely on features such as Carrier Aggregation (CA) to provide the best possible reception and throughput over multiple frequency bands simultaneously. Thereby it enhances the user experience for the latest 5G/LTE routers & devices. Poynting antennas are well known to outlast the next technologies, and this antenna is no different. It will continue to offer you the best performance after implementing your 5G router and technologies beyond.



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Although both antennas are electrically the same, the OMNI-493 is specifically designed for marine applications and the OMNI-293 is targeted at inland and rural environments:

- The OMNI-293 is designed according to IP65 requirements to prevent water and dust ingress while installed outdoors. This antenna is UV and weather protected and aimed at commercial, industrial, residential, and rural implementation.
- The OMNI-493 is the marine version of the same antenna, boasting an IP68 protection rating against water, making this antenna ideal for the most severe storms at sea. This marine antenna is also fully salt water protected so that it can be used in highly corrosive environments, including chemical and toxic environments thanks to the UV stable ASA radome material. This antenna is marketed to support 617 to 2700 MHz for marine applications, but also supports the 3400 to 3800 MHz CBRS frequency band when used inland.



The OMNI-493 marine antenna offers a standard 1"-14TPI marine adaptor (BRKT-40 in the box). A series of optional 316 grade stainless steel marine mounts are also available, namely the BRKT-37, BRKT-38 & BRKT-39.

The OMNI-293 rural antenna offers a 316-grade stainless steel L-bracket as standard (also provided with the OMNI-493). Both antennas comply with CE, EN, CSA, RoHS and IEC Standards and are rated for temperatures of -40°C to +80°C and will survive winds of up to 160 km with a rating of IK08 impact resistance.

See how we put our OMNI-402 antenna through our vigorous vibration testing on YouTube:



OMNI-293 (or OMNI-493),  
mounted using the provided  
316 Stainless Steel L-bracket