



Ultra-Wideband 5G/LTE Antenna: 617 – 3800 MHz



## 4x4 MIMO Omni-Directional Antenna | Marine & Coastal

### KEY FEATURES

- **4x4 MIMO** 5G/LTE Omni Antenna (4x ports)
- Exceptional omni-directional 5G/LTE antennas
- Ultra-wideband performance; **617 – 3800 MHz**
- Wide beamwidth with a peak gain of **3.5dBi**
- Future proof antenna with 5G/LTE coverage
- Covers LTE Band 71, 617 – 698 MHz
- Waterproof & Dustproof with an IP68 rating
- Salt water protected and UV Stable ASA enclosure, suitable for marine & coastal
- 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

- 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

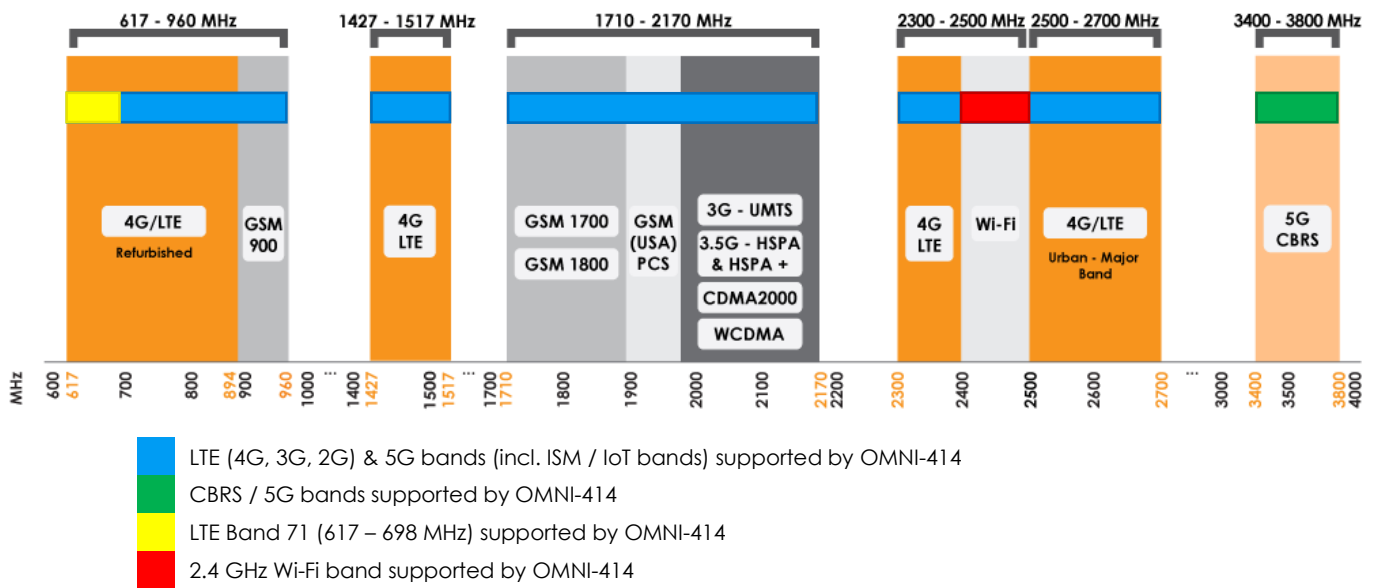


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## Product Overview

Poynting introduces its new OMNI-414 antenna, which is our first ever 4x4 MIMO omni-directional antenna. The antenna offers 4x4 MIMO capability from its vertically separated radiating elements, all within a single enclosure. Therefore, minimizing the number of antennas require on a vessel. The OMNI-414 does not replace any of our existing OMNI-antennas, but rather expands our range of omni-directional antennas.

The OMNI-414 features ultra-wideband coverage and operates from 617 MHz to 3800 MHz, covering the contemporary 5G/LTE bands for cellular communication. The bands covered include the up-and-coming LTE Band 71, 617 to 698 MHz, as well as the 3.5 GHz CBRS bands. The antenna has a peak gain of 3.5dBi across the bands of operation, which relates to a wide vertical beamwidth. This will allow for optimum coverage in harsh sea conditions. The antenna supports the 617 to 2700 MHz band for marine applications, but also supports the 3400 to 3800 MHz CBRS frequency band when used inland. The frequency bands covered by the antenna is illustrated in the below graph.



The antenna achieves exceptional omni-directional performance, with a wide vertical beamwidth across the frequency bands. This exceptional omni-directional performance was achieved by the unique antenna design. 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 combination of the superior omni-directional radiation patterns alongside the 4x4 MIMO capability will ensure improved performance and throughput out at sea.

The exceptional wideband performance is an important factor for 5G and LTE 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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The OMNI-414 is specifically designed for marine and coastal application, as it boasts an IP68 ingress protection rating against water. Making this antenna ideal for the most severe storms at sea. The antenna radome material consist of UV Stable ASA, making it fully salt water protected, as it can be used in highly corrosive environments, including chemical and toxic environments.

The OMNI-414 antenna offers a standard 1"-14TPI marine adaptor (BRKT-40 in the box). It also includes a 316-grade stainless steel L-bracket as standard, for pole mount applications. A series of optional 316 grade stainless steel marine mounts are also available, namely the BRKT-37, BRKT-38 & BRKT-39.

The antenna complies 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-414, mounted using the provided 316 Stainless Steel L-bracket