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Making wireless happen

2x2 MIMO in the following LTE/5G Bands: 410 - 470 MHz | 690 - 960 MHz | 1710 - 2700 MHz | 3200 - 3800 MHz



Omni-directional 2x2 MIMO Antenna | Urban & Marine applications

KEY FEATURES

- 2x2 MIMO LTE Omni Antenna (2x ports)
- Waterproof & Dustproof
 - The OMNI-600 urban antenna complies with IP65
 - The OMNI-402 marine antenna complies with IP68
- UV Stable Enclosure
- Suitable for marine and coastal applications (OMNI-402)
- Salt water protected (OMNI-402)
- Robust and strong antenna to survive adverse weather conditions
- DC grounded to prevent static discharge from damaging router equipment
- Wideband; covers wide frequency band: 410MHz to 2700MHz, including 3.2GHz to 3.8GHz CBRS Band (OMNI-600)
- 5G Ready and future proof antenna
- Works on all Cellular LTE networks across the world.

KEY APPLICATION AREAS

- OMNI-600 Specific:
 - Commercial, industrial, residential and urban applications, where reliable LTE/5G reception is required
 - Smart Environmental, Water Systems and Utilities M2M & IoT
 - Farming & Agricultural M2M & IoT
- OMNI-402 Specific:
 - Marine applications, such as: super yachts, commercial vessels, (river-) cruise ships, Ferries, private yachts, towing-vessels and speed boats
 - 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 coast line, lake sides and other high humid areas
 - Chemical & toxic environments

MIMO Omni Antenna Series

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Product Specifications may change without prior notice
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Regulatory Compliance: RoHS 2011/65/EU Compliant | ISO 9001:2015

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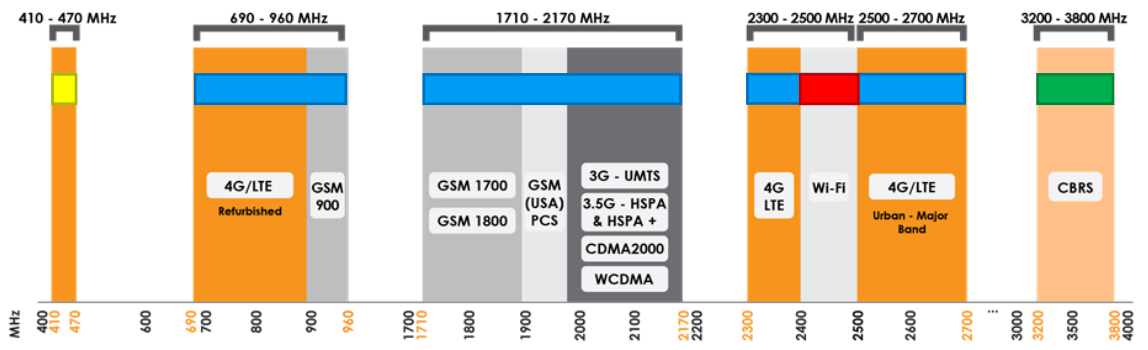


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Product Overview

Poynting's new OMNI-402 and the OMNI-600 Omni MIMO antennas are based on the very popular OMNI-291 marine antenna. These antennas all share the same physical radiation elements within the antenna enclosure, which result in similar performance characteristics as its single port SISO predecessor that has become very popular in the marine industry. These two new MIMO omni-directional antennas do not replace the OMNI-291 but expand the range to offer more options to our customers, especially where implementation space is limited.

These Cellular LTE/5G Ready 2x2 MIMO omni-directional antennas cover the contemporary 698MHz to 2700MHz bands as well as the recently available 450MHz LTE/CDMA band and 3.5GHz LTE/CBRS bands, providing reception capability of the most popular international LTE bands. For customers that require 4x4 MIMO, the implementation of two of these antennas will offer significant space reduction when compared to four antennas – not to mention the aesthetic advantages. In the case of upgrading current SISO antennas to MIMO, this saves space onboard or on your building, making it possible to increase your throughput with MIMO capabilities while keeping the same number of antennas as before.



- LTE (4G, 3G, 2G) & 5G bands (incl. ISM / IoT bands) supported by both OMNI-402 & OMNI-600
- CBRS / 5G bands supported by both OMNI-402 & OMNI-600 (not recommended for marine applications)
- LTE 450 / CDMA 450 / IoT band supported by both OMNI-402 & OMNI-600
- 2.4GHz WiFi band supported by both OMNI-402 & OMNI-600

Conventional antenna designs, such as an array of dipoles and other similar designs, do not lend 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 using an innovative technology whereby the impedance, gain and radiation patterns are harmonised over the entire frequency range, providing superior performance at all its LTE frequency bands. This is an important factor for LTE and future 5G technologies, where these technologies rely on emerging features such as Carrier Aggregation (CA) to provide the best possible reception and throughput over multiple frequency bands simultaneously, and thereby enhance the user experience for the latest LTE-A routers & devices. Poynting antennas are well known to outlast the next technologies, and this antenna is no different, where it will continue to offer you the best performance after implementing your 5G router and technologies beyond.



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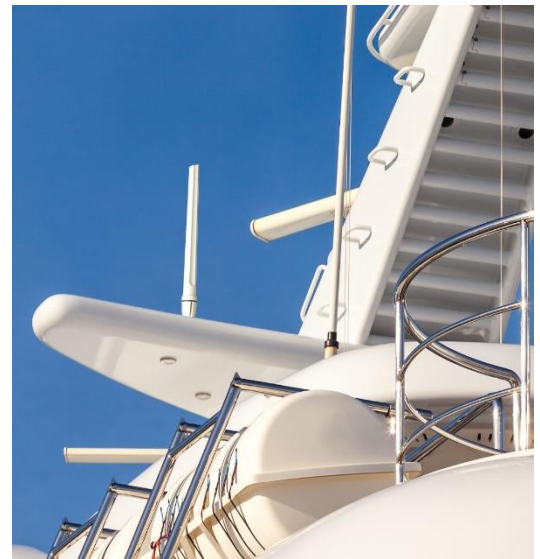
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The OMNI-402 (marine antenna) and the OMNI-600 (urban antenna) essentially have two vertically separated omni-directional radiation elements, specifically designed to have minimal coupling with each other, as to enhance their MIMO abilities. These antenna designs were optimised for the MIMO configuration as well as offering frequency band capability for the very wide band 410MHz to 3800MHz while maintaining such a relatively compact design. It is evident that high performance antennas are required in the marine market, but that size is often a constraint. The OMNI-402 (and OMNI-600) is built using a similar, but slightly taller (750mm) radome when compared to the OMNI-291; making this ideal for marine applications with minimal space allowed, either from a physical constraint or from an aesthetical perspective.

Although both antennas are electrically the same, the OMNI-402 is specifically designed for marine applications and the OMNI-600 targeted at inland environments:

- The OMNI-600 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 urban implementation.
- The OMNI-402 is the marine version of the same antenna, boasting IP68 protection 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 SAN Marine ASA radome material. This antenna is marketed to support 410MHz to 2700MHz for marine applications, but also supports the 3400MHz to 3800MHz CBRS frequency band when used inland.



The OMNI-402 marine antenna offers a standard 1"-14TPI marine adaptor (BRKT-40 in the box) and can optionally provide a standard 1¼"-11TPI marine adapter (BRKT-41) where these larger mounting points are already installed on the yacht or boat. A series of optional 316 grade stainless steel marine mounts are available, namely the BRKT-37, BRKT-38 & BRKT-39.

OMNI-600 (or OMNI-402),
mounted using the
provided 316 Stainless Steel
L-bracket



The OMNI-600 urban antenna offers a 316-grade stainless steel L-bracket as standard (also provided with the OMNI-402).

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 our vigorous vibration testing on YouTube:

