



XPOL Directional MIMO Antenna | Commercial Applications

KEY FEATURES

- Uni-Directional LTE or 5G Antenna
- Wideband frequency from:
 - **617 to 894 MHz** & 1710 to 3800 MHz for LTE & 5G
- High gain antenna with 11 dBi
- Cross-polarised and 2x2 MIMO for improved throughput
- LTE / 5G Ready and future proof antenna
- Works on all cellular networks across the world, including the new LTE Band 71 from 617 to 698 MHz.
- Also covers the 3.5 GHz CBRS/5G band
- SAN Marine ASA plastic enclosure – ensures UV stable and chemical protected enclosure
- Water & dust resistant enclosure (IP65)
- Robust and strong design to survive adverse weather
- Suitable for urban and rural applications
- Antenna can withstand winds of up to 250 km/h
- DC grounded to prevent static build-up discharge from damaging router equipment

KEY APPLICATION AREAS

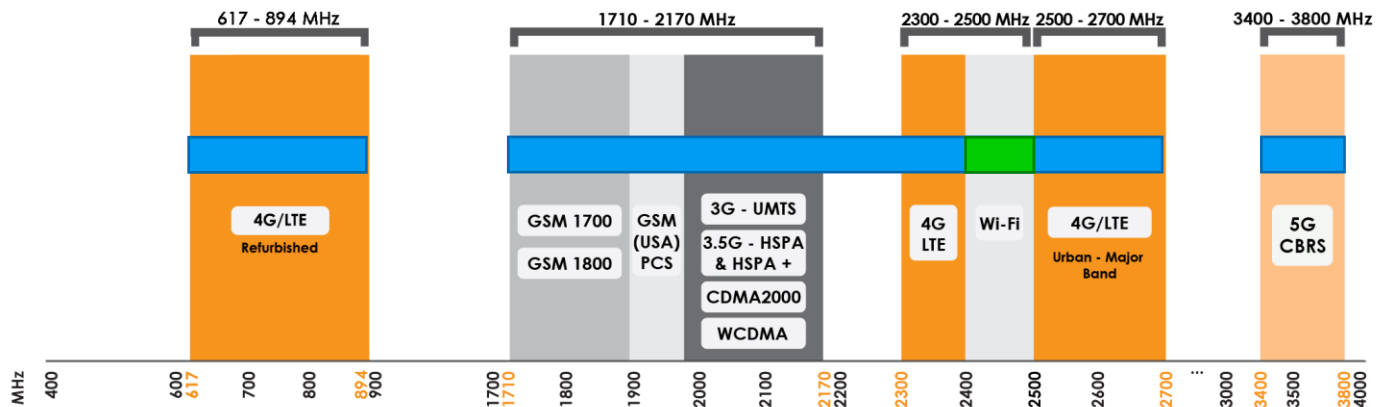
- Designed for commercial, industrial, residential, and urban applications, where reliable LTE/5G reception is required
- Used as an outdoor antenna for Fixed Wireless Access (FWA)
- Smart Environmental, Water Systems and Utilities M2M & IoT
- Farming & Agricultural M2M & IoT
- Oil & Gas communication systems
- Municipal & Government systems
- Repeaters & coverage enhancement amplifiers

Product Overview

Poynting Antennas introduces the all new XPOL-2-5G-US antenna, which is an expansion of our third generation “V3” of our very popular XPOL-2 antenna. The antenna has been redesigned internally from the current generation, to accommodate the up and coming LTE Band 71 and allow the antenna to operate from 617 to 698 MHz. The antenna applies our advanced metamaterial technology, making use of Artificial Magnetic Conductors (AMC) to achieve exceptional bandwidth and gain. The radiation patterns of this antenna are directional and exceptionally well controlled, further adding to the performance of the antenna.

The XPOL-2-5G-US antenna now covers the up and coming 5G bands, including the lower 617 to 894 MHz and the upper 3400 to 3800 MHz bands, which were not previously covered by our second generation “V2” of the XPOL-2 antenna. The antenna performs exceptionally well in the following frequency bands: 617 to 894 MHz, 1710 to 2170 MHz, 2300 to 2700 MHz, and 3400 to 3800 MHz.

With the implementation of the advanced metamaterial being used for the antenna, the antenna achieves a peak gain of 11 dBi across the frequency bands of operation. To further add to the performance of the antenna, the antenna features 2X2 MIMO and the elements are cross polarised for improved diversity and decorrelation. The frequency bands supported by the antenna are illustrated in the following graph.



■ Indicates the LTE/5G frequency bands the XPOL-2-5G-US supports ■ Indicates the WI-FI frequency bands the XPOL-2-5G-US supports

The radiation patterns of the XPOL-2-5G-US antenna are uni-directional and exceptionally well controlled across all the frequency bands of operation. The implementation of conventional antenna designs, such as an array of patch antennas or other similar designs, will not be able to achieve the required characteristics for a wide bandwidth and high gain antenna. Poynting Antennas has achieved this high-performance result by using an innovative design whereby the impedance bandwidth, gain and radiation patterns are matched over all the bands of operation. The result is an antenna with superior performance across all frequency bands supported by the antenna. This is an important factor for a stable connection on LTE and future 5G cellular technologies, where they rely on capacity enhancing features such as carrier aggregation to provide the best possible reception over multiple frequency bands.



The XPOL-2-5G-US uses the exact same enclosure as our current third generation XPOL-2-V3, giving it an overall size of 262 x 262 x 87.83 mm³. The enclosure has a rugged design and offers an IP65 rating, making the antenna weatherproof and waterproof. This makes the antenna suitable for outdoor mounting and ensuring that the antenna will be able to withstand harsh environmental conditions. The SAN Marine ASA radome material used for the antenna enclosure offers protection against highly corrosive environments, which includes chemical and toxic environments.

The antenna also comes standard with a mounting bracket and knock-in screws that can be used for a variety of mounting options. The antenna can be wall or pole mounted to be used as an outdoor antenna for easy installation, thanks to the Z-bracket. The antenna complies with the relevant CE, EN, CSA and RoHS standards as stated in our technical sheets. The antenna is also rated for temperatures from -40°C to +80°C and will survive winds of up to 250 km/h with an impact resistance rating of IK08.

Poynting Antennas are well known to provide future proof antennas and the all new XPOL-2-5G-US is no different. We plan to release the new antenna at the end of October/beginning of November 2020, with all the related specifications and information available at launch. Orders will be possible from October 2020. Please keep an eye out for the launch of the new XPOL-2-5G-US antenna.



Mounting Options



Pole Mount

Pole/Wall mounting bracket used with pipe clamp (included)



Wall Mount

Pole/Wall mounting bracket using knock-in screws (included)