



## XPOL Omni-directional MIMO Antenna | Commercial Applications

### KEY FEATURES

- Omni Directional LTE or 5G Antenna
- Wideband frequency from:
  - 698 MHz to 3800 MHz for LTE & 5G
- Medium gain antenna of 3 dBi:
- 2x2 and 4x4 MIMO derivatives
- LTE / 5G Ready and future proof antenna
- Works on all Cellular LTE networks across the world, including new 3.5GHz 5G/CBRS band
- Also covers the 2.4 GHz Wi-Fi band
- SAN Marine ASA plastic enclosure – ensures UV stable and chemical protected enclosure
- Water & dust resistant enclosure (IP65)
- Suitable for urban applications
- Robust and strong design to survive adverse weather
- Able to withstand winds of up to 160 km/h
- DC grounded to prevent static build-up discharge from damaging router equipment

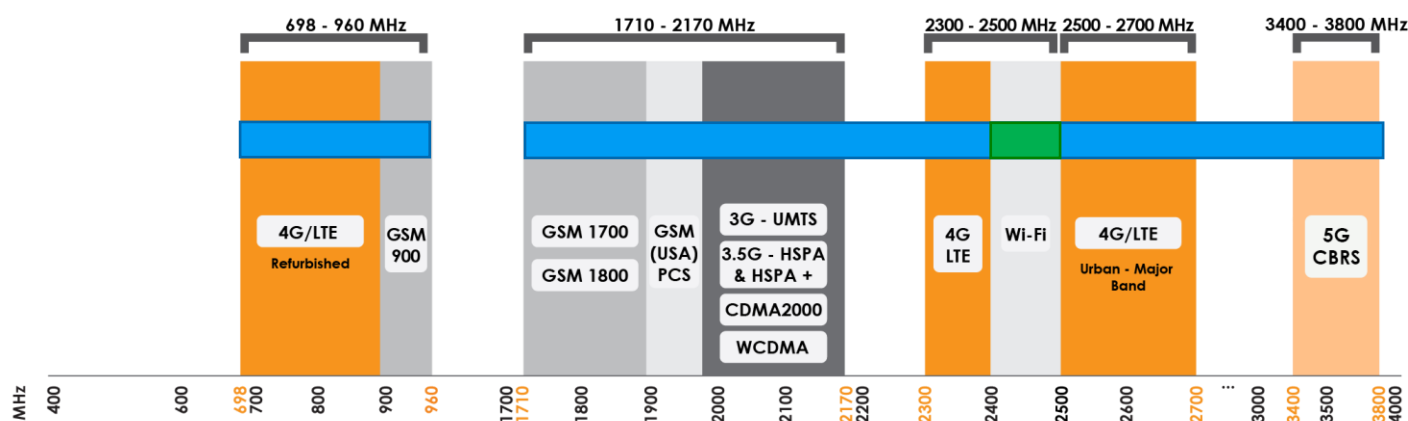
### KEY APPLICATION AREAS

- 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)
- Can also be implemented as an indoor antenna for FWA/Wi-Fi to improve reception and data throughput
- 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 to release the all new XPOL-1-5G antenna, the second generation “V2” of the very popular XPOL-1 antenna. The antenna has been completely redesigned from the previous generation with an all new enclosure and antenna design. The all new cross-polarised, omni-directional antenna does not replace the current XPOL-1 antenna and is intended to expand the range and offer more options to our customers.

The new antenna design achieves wideband performance from 698 to 3800 MHz. This wideband performance allows the antenna to cover the contemporary LTE and 5G Ready bands from 698 to 3800 MHz, which also includes the newer 5G/CBRS band from 3400 to 3800 MHz. The antenna performs exceptionally well in the following frequency bands: 698 to 960 MHz, 1710 to 2700 MHz, and 3400 to 3800 MHz, with a peak gain of 3 dBi across the bands of operation. The antenna also offers 2X2 MIMO capability and a 4X4 MIMO derivative. The 4X4 variant can be used for a 4X4 router or in a dual 2X2 modem. The frequency bands in which the antenna operate are illustrated in the following graph.



 Indicates the LTE/5G frequency bands on which XPOL-1-5G works  Indicates the Wi-Fi frequency band on which XPOL-1-5G works

The radiation patterns of the XPOL-1-5G antenna are near ideal omni-directional and exceptionally well controlled. The implementation of conventional antenna designs, such as an array of dipoles or other similar designs, won't be able to achieve the required characteristics for a wide impedance and gain bandwidth antenna, while achieving near ideal radiation patterns over the entire bandwidth. Poynting Antennas has achieved this by using an innovative design whereby the impedance bandwidth, gain and radiation patterns are matched over the entire frequency range. This offers superior performance across all frequency bands. This is an important factor for LTE and future 5G technologies, where they rely on capacity enhancing features such as carrier aggregation to provide the best possible reception over multiple frequency bands. Poynting Antennas are well known to provide future proof antennas and the all new XPOL-1-5G is no different.





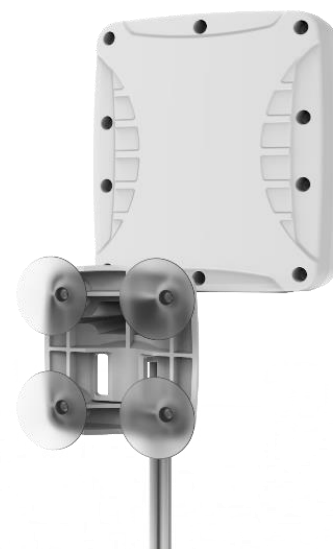
The redesign of the XPOL-1-5G enclosure has seen a slight increase in size from the previous XPOL-1, giving it an overall size of 247 x 157 x 88 mm<sup>3</sup>. The new enclosure offers a much more robust mechanical design making the antenna weather & dust resistant. This gives the antenna an IP 65 rating, making it suitable for harsh environments, which makes the antenna almost perfect for most application areas. The antenna is also protected against highly corrosive environments, including chemical and toxic environments. This is thanks to the SAN Marine ASA radome material.

The XPOL-1-5G antenna also offers a variety of mounting options to ease the installation process. The antenna can be wall or pole mounted to be used as an outdoor antenna or the antenna can be window mounted with the help of suction cups to be used as an indoor antenna. For simplistic implementation, this antenna can be mounted on the window, internally, and still provide excellent performance.

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 +70°C and will survive winds of up to 160 km/h with a rating of IK10 impact resistance.

The new XPOL-1-5G (2x2 or 4x4 variants) add to our very popular XPOL-1 antenna to expand this series of antennas. We do not plan to retire the existing antenna as it will remain a popular option going forward.

We plan to release the new XPOL-1-5G antenna at the end of July/beginning of August 2020, with all the related specifications and information available at launch. Orders will be possible from August 2020. Please keep an eye out for the launch of the new XPOL-1-5G antenna, as we expect to let them out into the wild and create much deserved excitement amongst our customers.



XPOL-1-5G mountable  
with window suckers

## Mounting Options



### Pole Mount

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



### Wall Mount

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



### Window Mount

Pole/Wall mounting bracket used with window suckers (included)