XPOL-1

ANTENNAS | XPOL-1 SERIES

X-POLARISED, OMNI-DIRECTIONAL LTE ANTENNA

2x2 LTE (MIMO); 790 - 960 MHz, 1.6 dBi; 1710 - 2700 MHz, 4 dBi

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**Product Overview**

The XPOL-1 antenna provides an innovative solution for the signal enhancement of 4G/3G and 2G networks. It is a unique window, wall- or pole-mountable, dual polarised, full LTE band antenna. Incorporating two separately fed ultra-wideband elements in a single housing, the antenna is equipped to provide client-side MIMO and diversity support for the networks of today and tomorrow. This is a cost-effective solution for enhancing signal reception and throughput. The XPOL-1 antenna increases signal reliability, ensures higher data throughput for users and provides a stable, high quality connection. This improves user experience and secures client retention. It is ideal for any application using the GSM network (LTE/HSPA/3G/EDGE/GPRS).

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**Features**

- Future-proof omni-directional wideband LTE antenna
- Backwards compatible with 2G and 3G technologies
- Two antennas in one enclosure for optimal LTE performance
- Improves mobile network subscriber’s user experience
- Increased connectivity stability
- Weather- and vandal proof enclosure
- Pole, wall, or window mountable

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**Application Areas**

- Urban and rural areas
- Residential and small to medium business
- Small offices in semi underground areas
- Areas with poor data signal reception (indoor or outdoor)
- Slow data transmission connection
- Unstable connection
- Increase system transmission reliability
- LTE fringe areas (close to an LTE area, but just out of reach)
- Network operator flexibility – as the antennas are wideband, a new antenna is not needed per network operator

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Frequency Bands

The XPOL-1 is a wide-band antenna that works from | 790 - 960 MHz | and | 1710 - 2700 MHz |

Antenna Overview

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<td>Cross Polarised (+45° and -45°)</td>
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<td>Peak Gain</td>
<td>4 dBi</td>
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<td>Twin HDF 195</td>
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<td>Coax Cable Length</td>
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<td>Connector Type</td>
<td>SMA (M)</td>
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*The coax cable & connector is factory mounted to the antenna
Electrical Specifications

Frequency bands:
- 790 – 960 MHz
- 1710 – 2700 MHz

Gain (max):
- 1.6 dBi @ 790-960 MHz
- 4 dBi @ 1710-2700 MHz

VSWR: <2:1

Feed power handling: 10 W

Input impedance: 50 Ohm (nominal)

Polarisation: Cross Polarised (+ 45° and -45°)

Coax cable loss:
- 0.385 dB/m @ 900 MHz
- 0.565 dB/m @ 1800 MHz
- 0.666 dB/m @ 2400 MHz

DC short: Yes

Product Box Contents

Antenna: A-XPOL-0001

Mounting bracket: Pole, wall, and window suckers included

Ordering Information

Commercial name: XPOL-1

Order product code: A-XPOL-0001

EAN number: 6009693810754

Mechanical Specifications

Product dimensions: 235 mm x 135 mm x 85 mm

Packaged dimensions: 260 mm x 150 mm x 95 mm

Weight: 0.62 kg

Packaged weight: 0.85 kg

Radome material: ABS (Halogen Free)

Radome colour: Pantone - Cool Gray (1C)

RAL - 7047

Mounting Type: Pole, wall, and window

Environmental Specifications, Certification & Approvals

Wind Survival: <160 km/h

Temperature Range (Operating): -40°C to +70°C

Environmental Conditions: Outdoor/Indoor

Water ingress protection ratio/standard: IP 65

Salt Spray: MIL-STD 810F/ASTM B117

Operating Relative Humidity: Up to 98%

Storage Humidity: 5% to 95% - non-condensing

Storage Temperature: -40°C to +70°C

Enclosure Flammability Rating: UL 94-HB

Impact resistance: IK 08

Product Safety & Environmental: Complies with CE and RoHS standards
Antenna Performance Plots

Voltage Standing Wave Ratio (VSWR)

VSWR is a measure of how efficiently radio-frequency power is transmitted from a power source, through a transmission line, into a load. In an ideal system, 100% of the energy is transmitted which corresponds to a VSWR of 1:1.

The XPOL-1 delivers superior performance across all bands with a VSWR of <2:1.

Gain* in dBi

4 dBi is the peak gain across all bands from 790 – 2700 MHz

Gain @ 790 – 960 MHz: 1.6 dBi
Gain @ 1710 – 2700 MHz: 4 dBi

*Antenna gain measured with polarisation aligned standard antenna

Technical Drawings
Radiation Patterns

Azimuth: 790 – 960 MHz

Azimuth: 1710 – 2100 MHz

Azimuth: 2500 – 2700 MHz

Elevation: 790 – 960 MHz

Elevation: 1710 – 2100 MHz

Elevation: 2500 – 2700 MHz
Mounting Options

Pole Mount
Pole/Wall/Window mount bracket included

Wall Mount
Pole/Wall/Window mount bracket included

Window Mount
Suckers for Pole/Wall/Window mount bracket included
Additional Accessories

Various connectors available
Installation poles and brackets available

See accessories technical specifications on www.poynting.tech