










ANTENNAS | XPOL-1 SERIES

X-POLARISED, OMNI-DIRECTIONAL LTE ANTENNA

2X2 LTE (MIMO); 790 - 960 MHz, 1.6 dBi; 1710 - 2700 MHz, 4 dBi



| | | | | | |
|---|---|---|--|---|---|
|  |  |  |  |  |  |
| 790 – 960 MHz; 1710 – 2700 MHz | 4 dBi | Increase x Mb/s | Omni- Directional | Machine to Machine | 4G LTE |
|  |  |  | | | |
| IP 65 | -40°C to +70°C | Fire Resistant | | | |

- **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**



APPLICATION AREAS

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).

Features

- Medium gain, omni-directional antenna
- Wideband – covers wide frequency band
- Pole, wall, or window mounted
- Lightweight
- Waterproof
- Two antennas in one enclosure

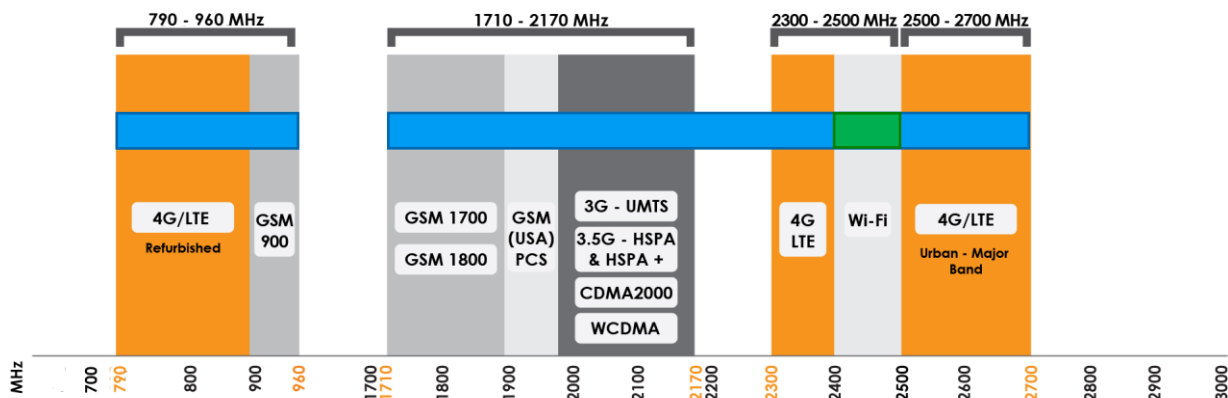
Application Areas

- 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



Frequency Bands

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



 Indicates the LTE bands on which XPOL-1 works Indicates the WI-FI bands on which XPOL-1 works

Antenna Overview

| | |
|-------------------|----------------------------------|
| | |
| Ports | 2 |
| SISO / MIMO | 2x2 MIMO |
| Frequency Bands | 790 – 960 MHz 1710 – 2700 MHz |
| Polarisation | Cross Polarised (+ 45° and -45°) |
| Peak Gain | 4 dBi |
| Coax Cable Type | Twin HDF 195 |
| Coax Cable Length | 5m |
| Connector Type | SMA (M) |

**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

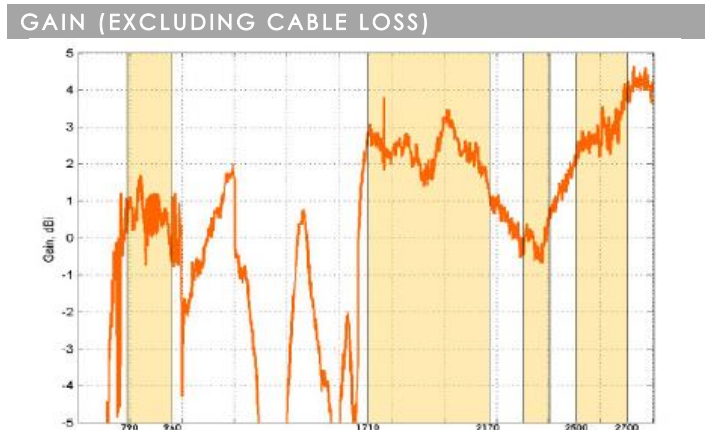
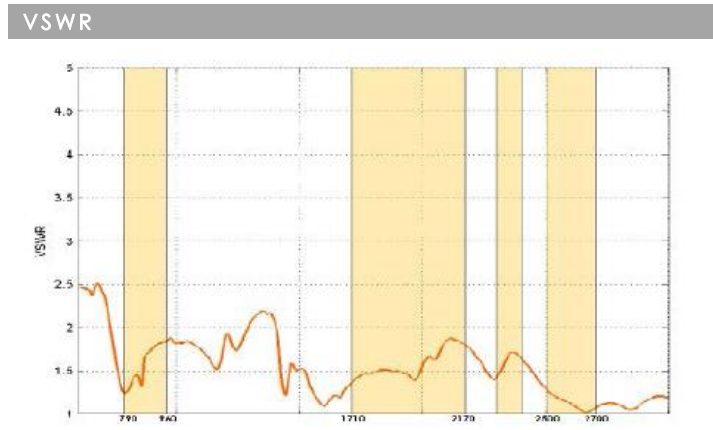
| | |
|-----------------------------|---------------------------------------|
| Product dimensions | 235 mm x 135 mm x 85 mm |
| Packaged dimensions: | 260 mm x 150 mm x 95 mm |
| Weight: | 0.62 kg |
| Packaged weight: | 0.85 kg |
| Radome material: | ABS (Halogen Free) |
| Radome colour: | Pantone- 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

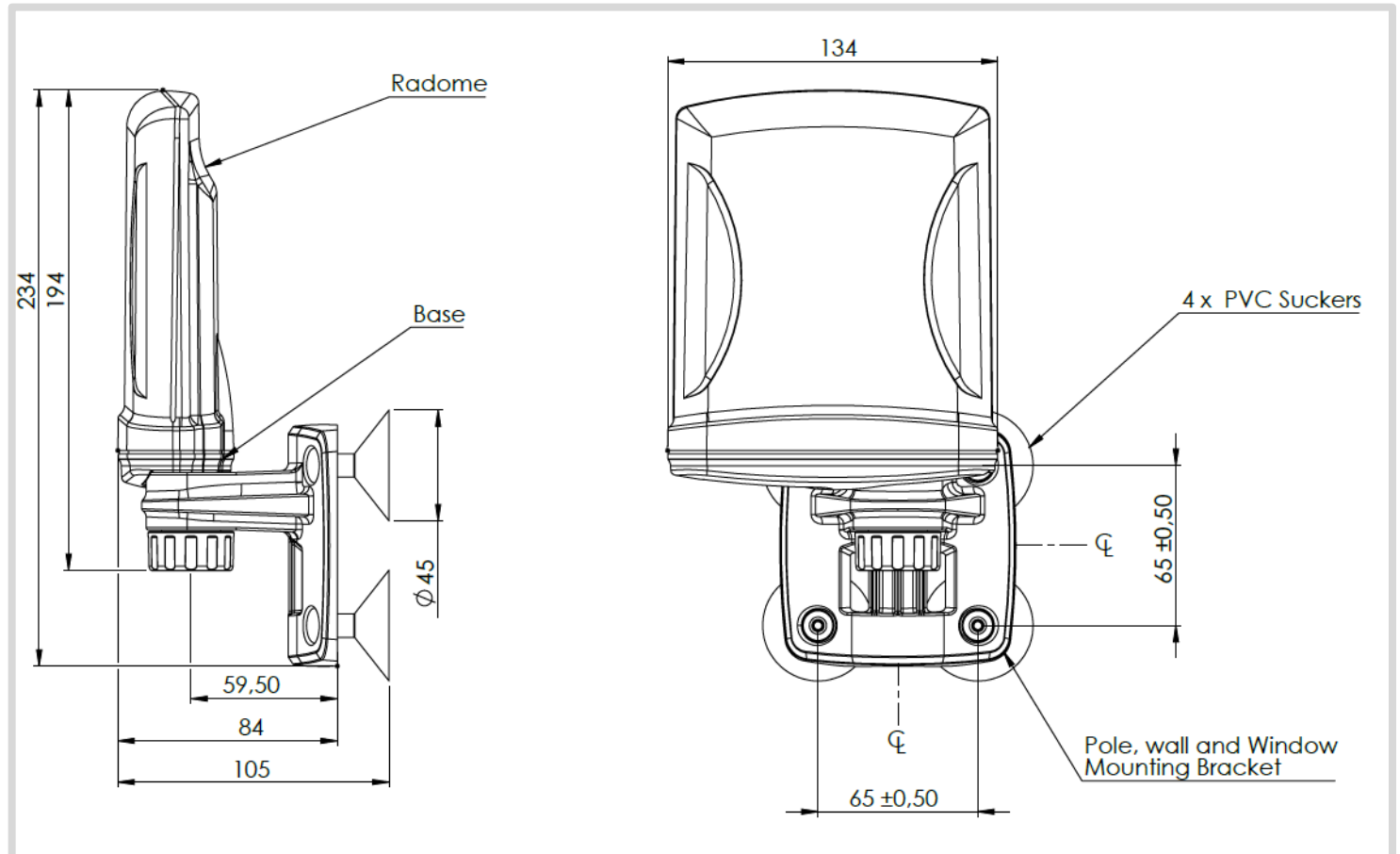
4 dBi is the peak gain across all bands from 790 – 2700 MHz

Gain @ 790 – 960 MHz: 1.6 dBi

Gain @ 1710 – 2700 MHz: 4 dBi

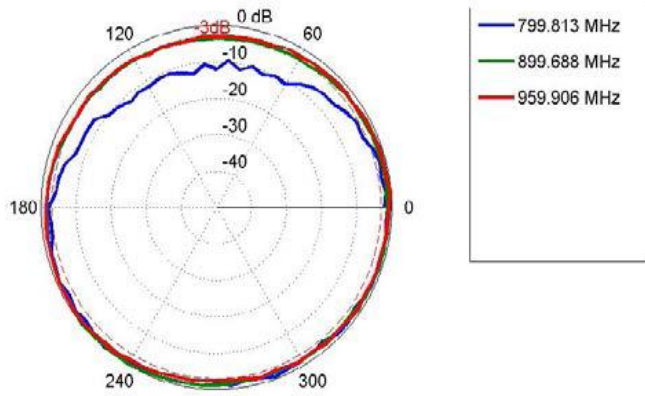
**Antenna gain measured with polarisation aligned standard antenna*

Technical Drawings

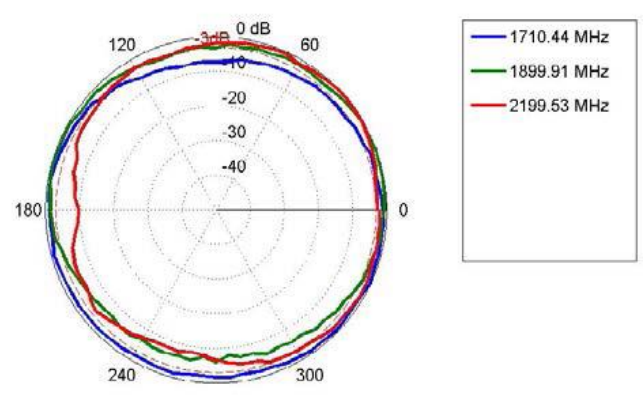


Radiation Patterns

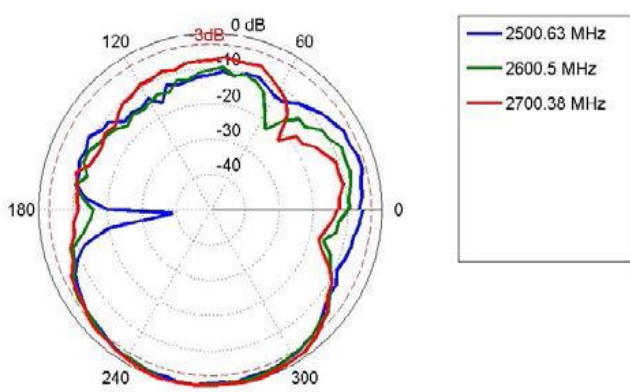
Azimuth: 790 – 960 MHz



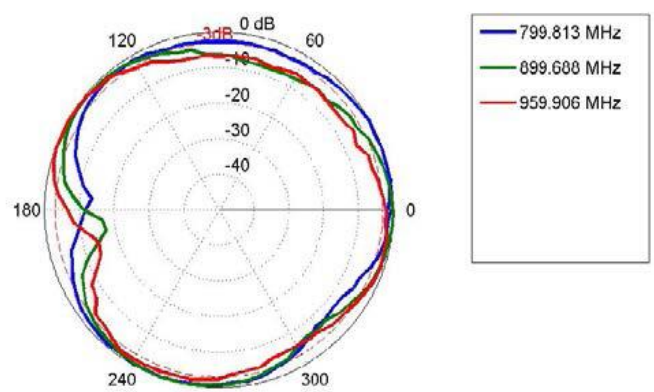
Azimuth: 1710 – 2100 MHz



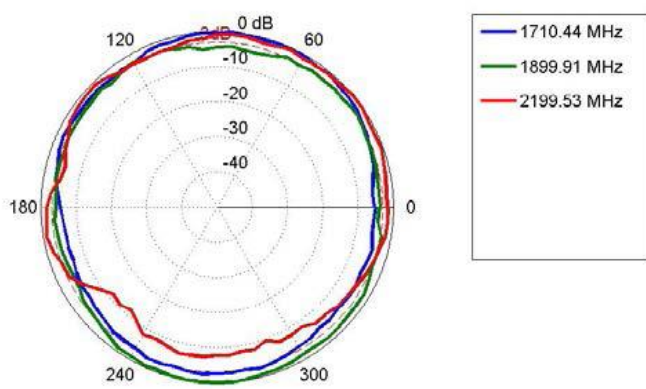
Azimuth: 2500 – 2700 MHz



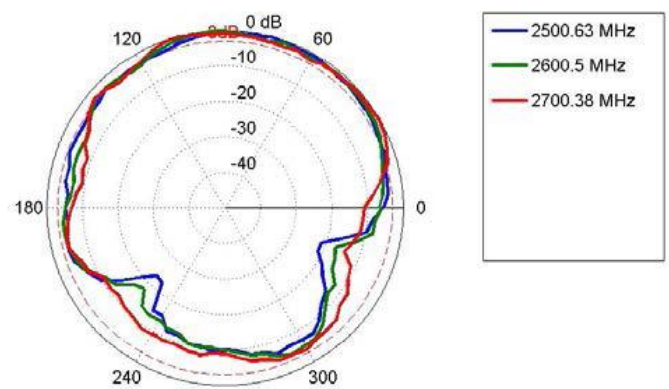
Elevation: 790 – 960 MHz



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

Contact Poynting

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