MATLOG

XPOL-1

Poynting
Making wireless happen

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

Urban

Rural/Farm

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

Revised: June 2020

Regulatory Compliance: RoHS 2011/65/EU Compliant | ISO 9001:2015
Document version: TS-A-XPOL-0001-V1 REV 3
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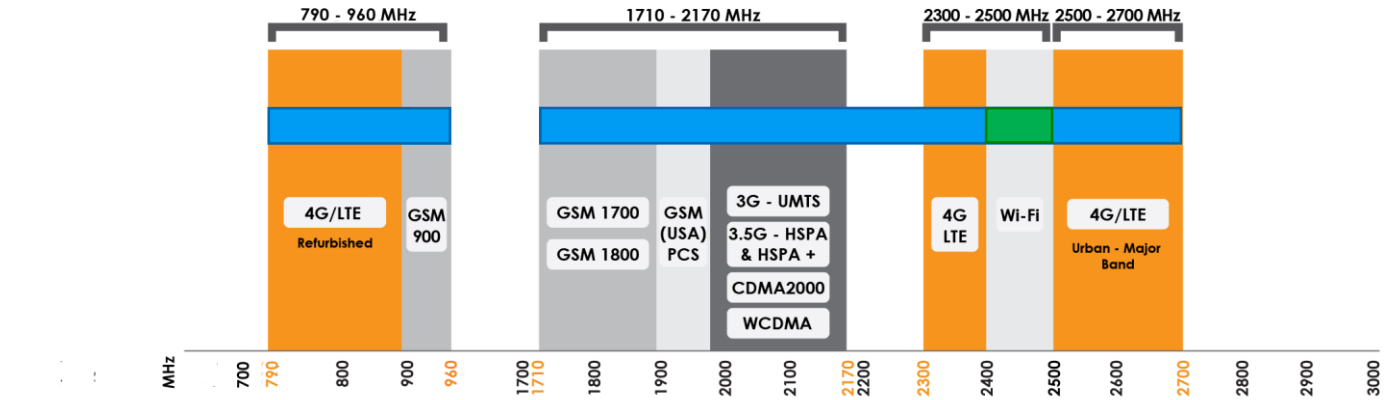
Frequency Bands

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

	LTE
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*

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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

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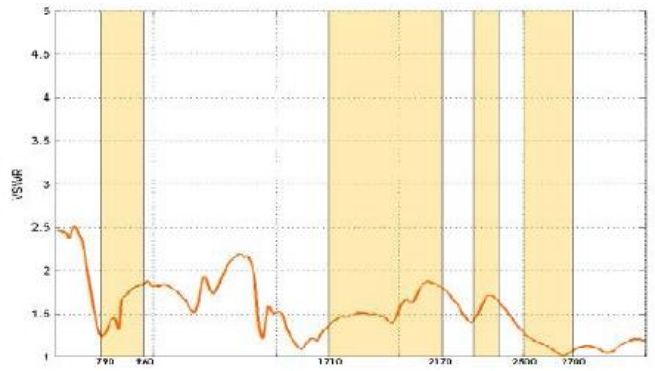
Antenna Performance Plots

VSWR



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 (EXCLUDING CABLE LOSS)

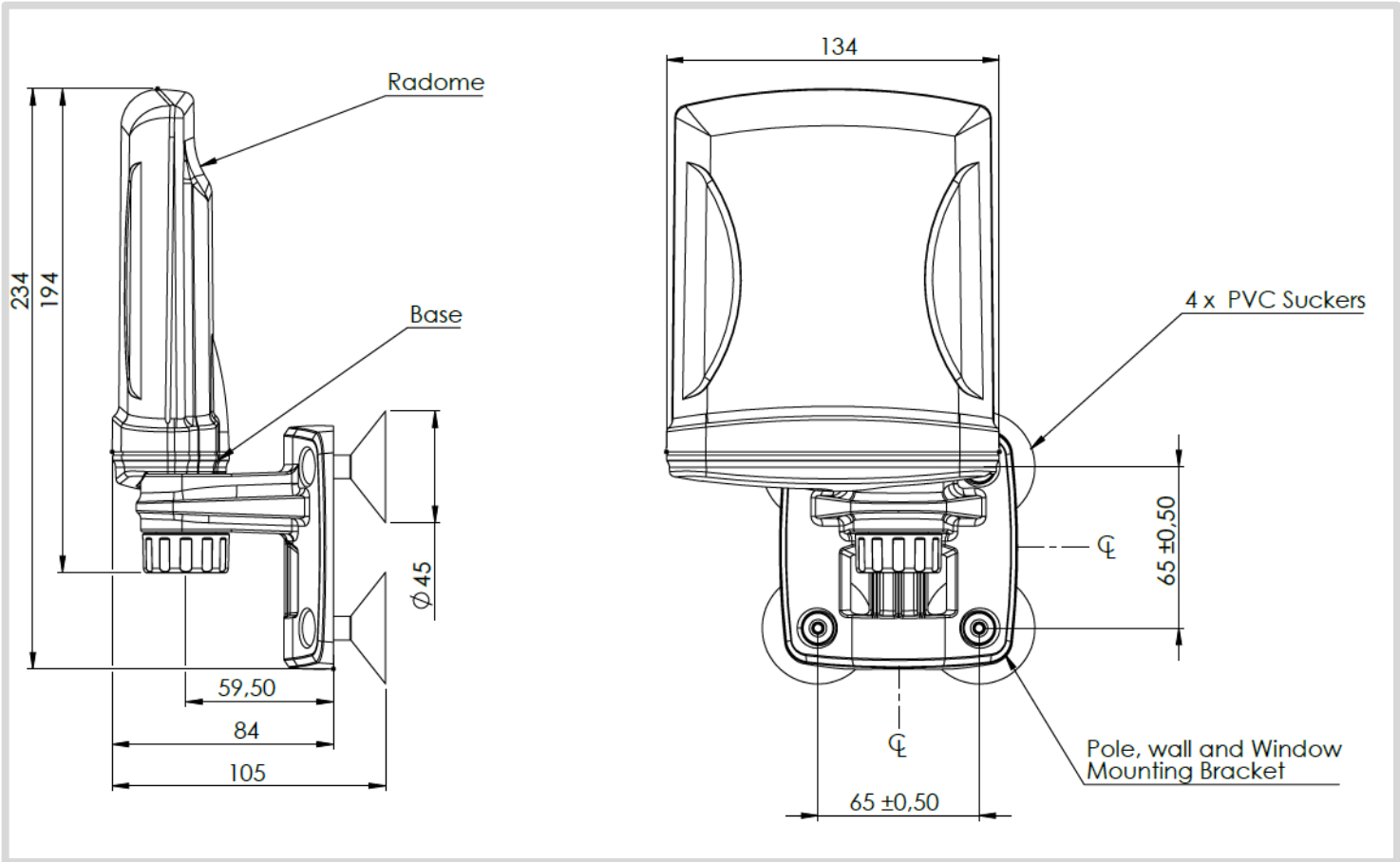
Gain* in dBi

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



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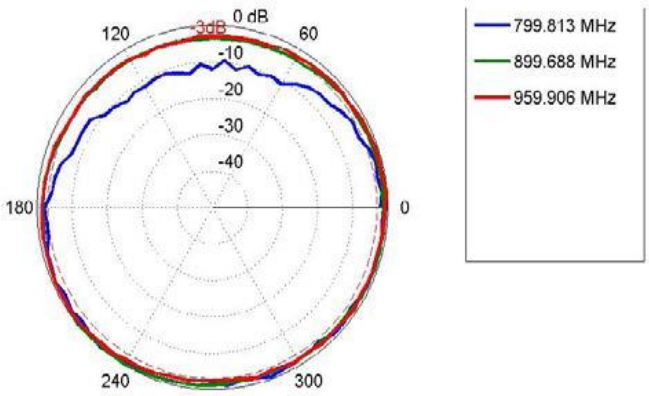
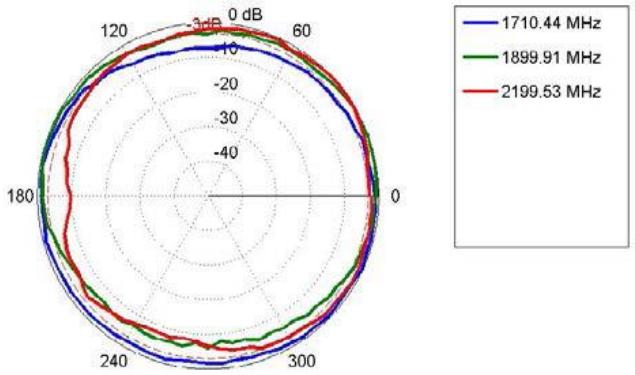
Radiation Patterns

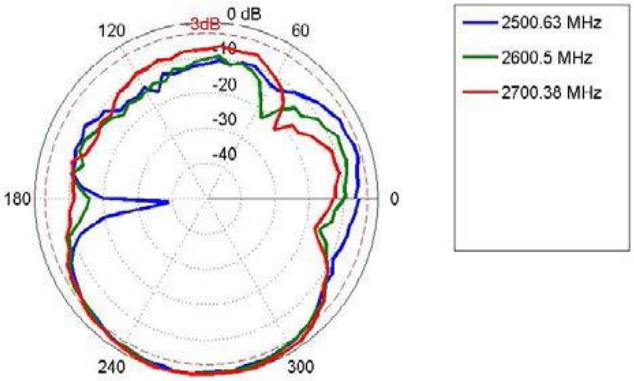
Azimuth: 790 – 960 MHz



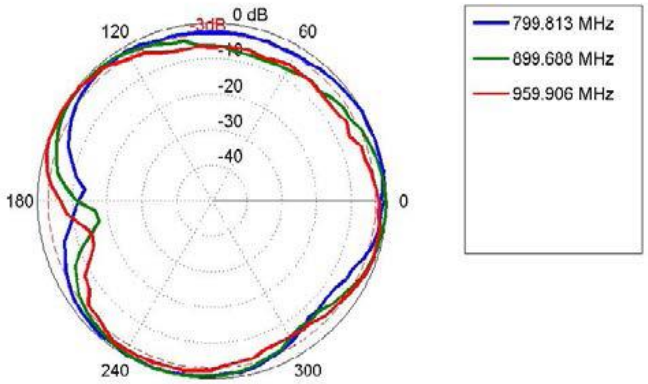
Azimuth: 1710 – 2100 MHz



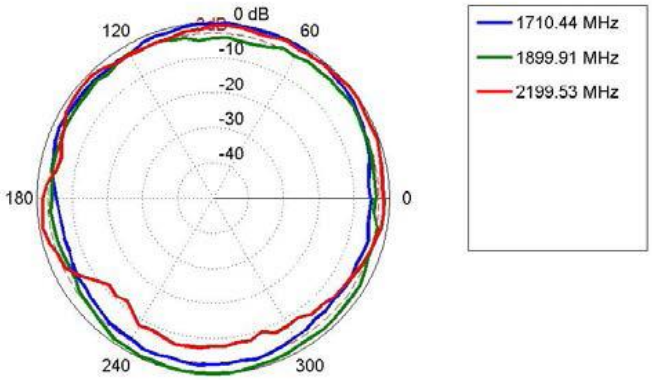
Azimuth: 2500 – 2700 MHz



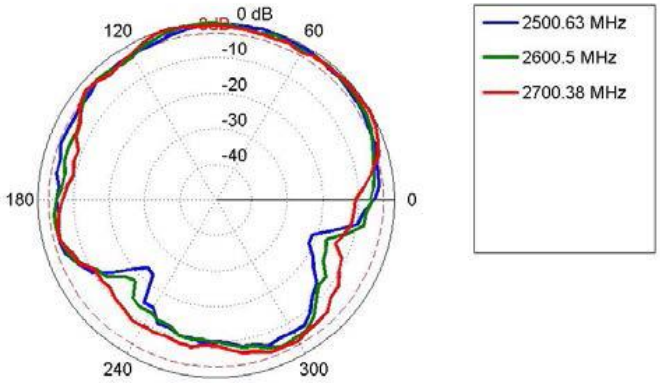
Elevation: 790 – 960 MHz



Elevation: 1710 – 2100 MHz



Elevation: 2500 – 2700 MHz



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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

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Additional Accessories

Various connectors available

Installation poles and brackets available

See accessories technical specifications on www.poynting.tech

Contact Poynting

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