XPOL-16

ANTENNAS | XPOL-16 SERIES

X-POLARISED, HIGH GAIN, UNI-DIRECTIONAL LTE ANTENNA

2X2 LTE (MIMO); 450 - 470 MHz, 6.5 dBi; 790 - 2170 MHz, 8 dBi

450 – 470 MHz; 790 – 860 MHz; 1710 – 2170 MHz

8 dBi

Increase x Mb/s

Uni-Directional

Machine to Machine

450 – 470 MHz

4G LTE

IP 65

-40°C to +70°C

Fire Resistant

2x2 MIMO

- **Futureproof wideband LTE antenna**
- **Includes the new 450 – 470 MHz frequency band**
- **Backwards compatible with 3G and 2G technologies**
- **Two antennas in one enclosure for optimal LTE performance**
- **Improves mobile network subscriber's user experience**
- **Increased connectivity stability**
- **Weather- and vandal resistant enclosure (IP 65)**

APPLICATION AREAS

Urban

Rural/Farm

Product Overview

The XPOL-16 covers multiple LTE frequency bands, which includes the 450 – 470 MHz, 790 – 860 MHz and 1710 – 2170 MHz. The antenna is an innovative solution to boost the reception of 4G, 3G and 2G network signals. The XPOL-16 is a dual-polarised full LTE band antenna and is wall- or pole-mountable. The antenna is equipped to provide client-side MIMO and diversity support for the networks of today and tomorrow by incorporating two separately fed ultra-wideband elements in a single housing. This is a cost-effective solution for enhancing signal reception and throughput. The XPOL-16 antenna increases signal reliability, ensures higher data throughput for users and provides a stable, high quality connection. This improves subscriber's user experience and secures client retention. It is ideal for any application using the GSM network (LTE/ HSPA/3G/EDGE/GPRS).

Features

- High gain directional antenna
- Wideband frequency ranges from 450 – 2170 MHz
- Two antennas in one enclosure; offering MIMO capability
- Wall or pole mountable
- Lightweight

Application Areas

- Machine-to-Machine (M2M) applications
- Urban and rural areas
- Poor data signal reception (Indoor or outdoor)
- Slow data transmission connectivity
- 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 – works on most networks

Revised: June 2020

Regulatory Compliance: RoHS 2011/65/EU Compliant | ISO 9001:2015
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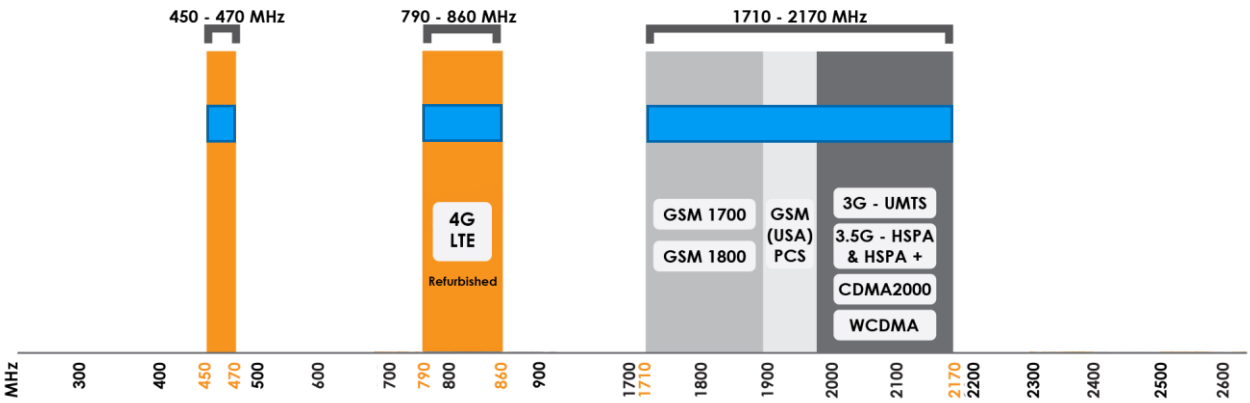
Frequency Bands

The XPOL-16 is a directional antenna that works from 450 – 470 MHz | 790 – 860 MHz | 1710 – 2170 MHz



Indicates the LTE bands on which **XPOL-16 works**

Antenna Derivatives

	LTE
Ports	2
SISO / MIMO	2x2 MIMO
Frequency Bands	450 – 2170 MHz
Peak Gain	8 dBi
Coax Cable Type	Twin HDF 195
Coax Cable Length	5m
Connector Type	SMA (M)

**The cable and connector are factory mounted to the antenna*

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Electrical Specifications

Frequency bands:	450 – 470 MHz 790 – 860 MHz 1710 – 2170 MHz
Gain (max):	6.5 dBi @ 450 – 470 MHz 8 dBi @ 790 – 860 MHz 8 dBi @ 1710 – 2170 MHz
VSWR:	<2.5:1
Feed power handling:	10 W
Input impedance:	50 Ohm (nominal)
Polarisation:	+ 45° and - 45°
Coax cable loss:	0.255 dB/m @ 450 MHz 0.565 dB/m @ 1800 MHz 0.584 dB/m @ 2000 MHz
DC short:	Yes

Product Box Contents

Antenna:	A-XPOL-0016
Mounting bracket:	1 x Z-shaped mounting bracket suitable for wall or pole mount

Ordering Information

Commercial name:	XPOL-16
Order product code:	A-XPOL-0016
EAN number:	6009693810143

Mechanical Specifications

Product dimensions	360 mm x 360 mm x 151 mm
Packaged dimensions:	360 mm x 360 mm x 98 mm
Weight:	1.98 kg
Packaged weight:	2.38 kg
Radome material:	ABS (Halogen Free)
Radome colour:	Pantone – Cool Gray (1C) RAL - 7047
Mounting Type:	Wall and pole mount

Environmental Specifications, Certification & Approvals

Wind Survival:	<120 km/h
Temperature Range (Operating):	-40°C to +70°C
Environmental Conditions:	Outdoor/Indoor
Water ingress protection ratio/standard:	IP 65 (NEMA 4X)
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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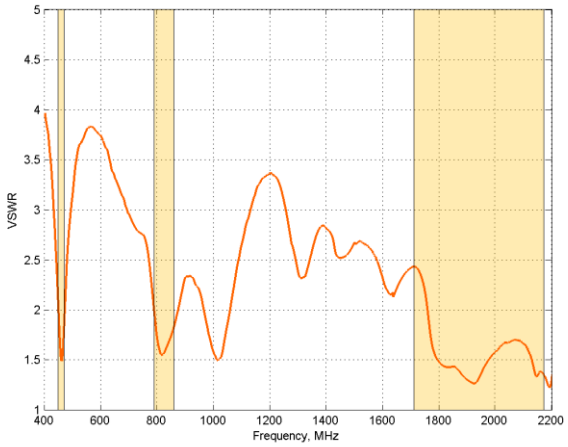
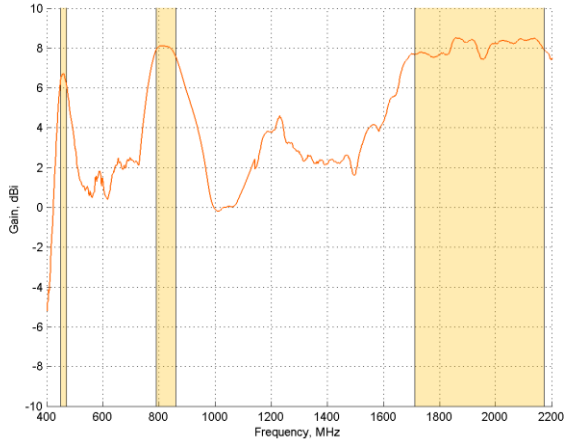
Antenna Performance Plots

VSWR



GAIN (EXCLUDING CABLE LOSS)



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-16 delivers superior performance across all bands with a VSWR of 2.5:1 or better.

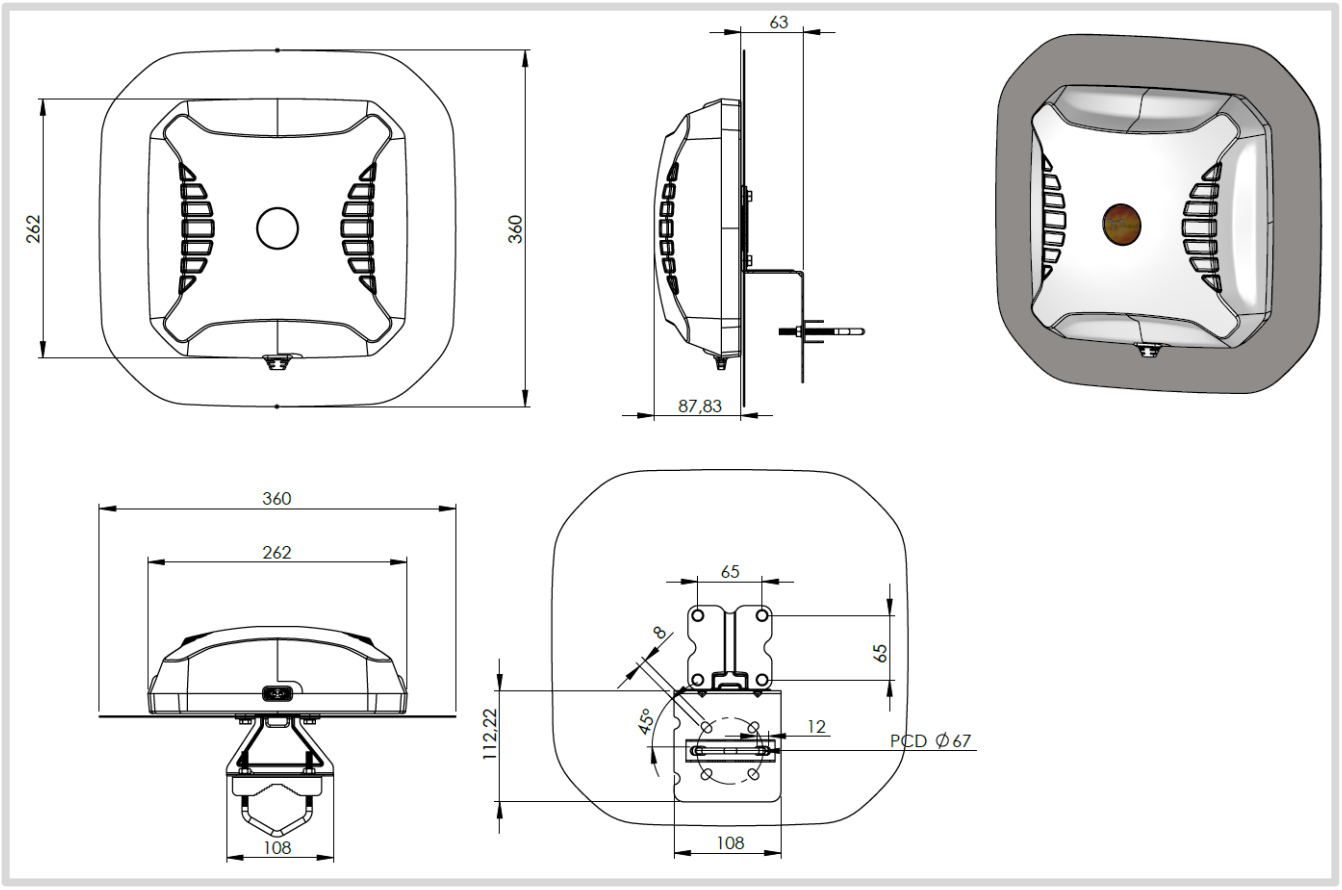
Gain* in dBi

8 dBi is the peak gain across all bands from 450 - 2170 MHz

Gain @ 450 – 470 MHz:	6.5 dBi
Gain @ 790 – 860 MHz:	8 dBi
Gain @ 1710 – 2170 MHz:	8 dBi

**Antenna gain measured with polarisation aligned standard antenna*

Technical Drawings



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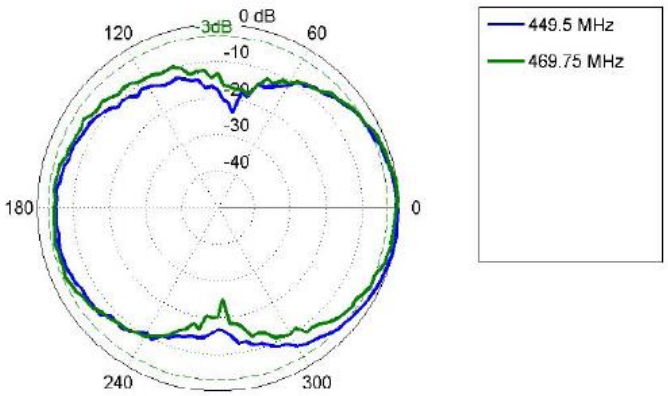
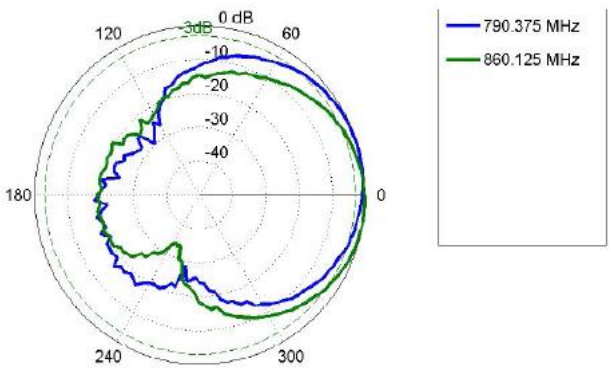
Radiation Patterns

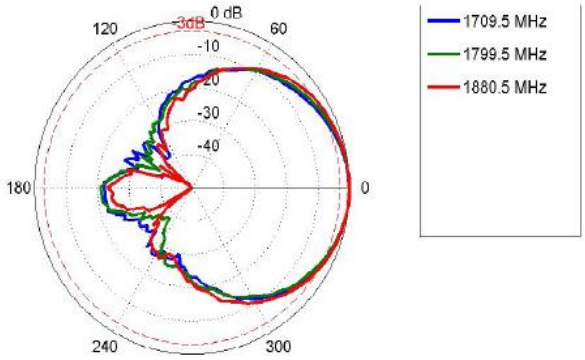
Azimuth: 450 – 470 MHz



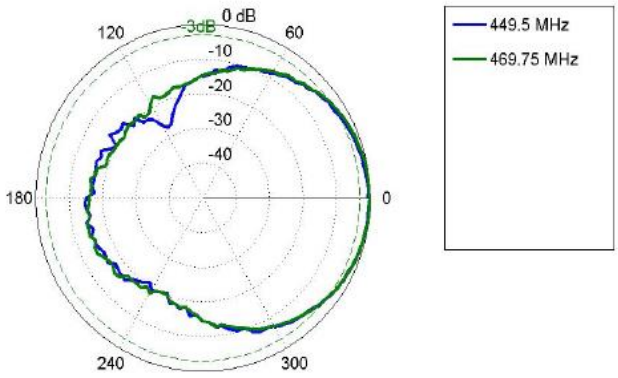
Azimuth: 790 – 860 MHz



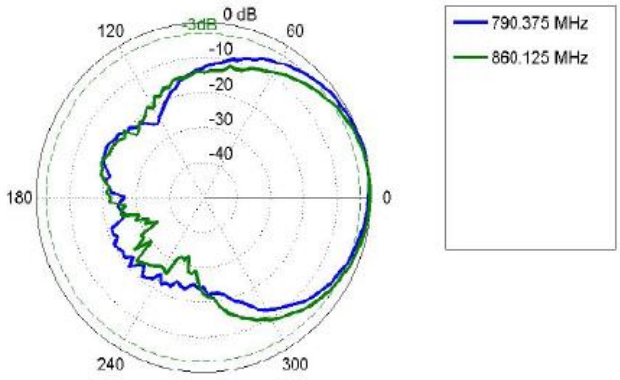
Azimuth: 1710 – 2170 MHz



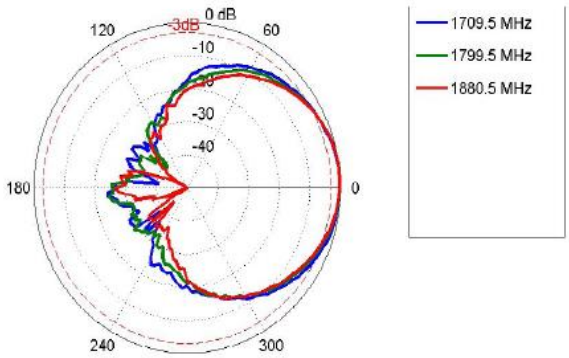
Elevation: 450 – 470 MHz



Elevation: 790 – 860 MHz



Elevation: 1710 – 2170 MHz



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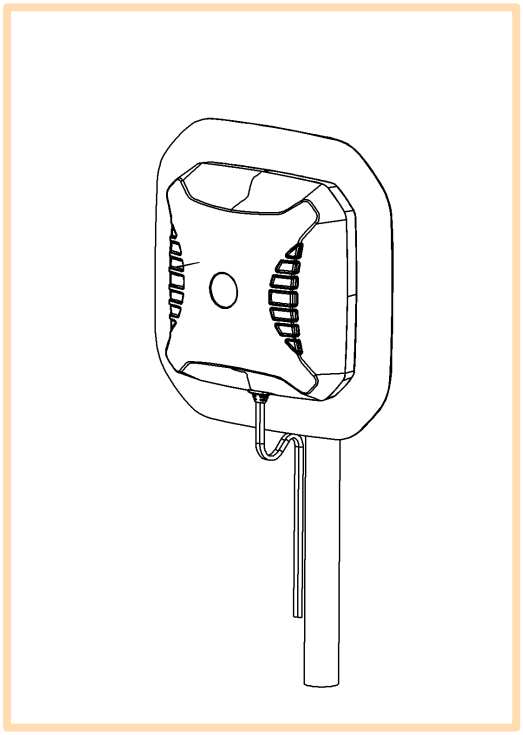
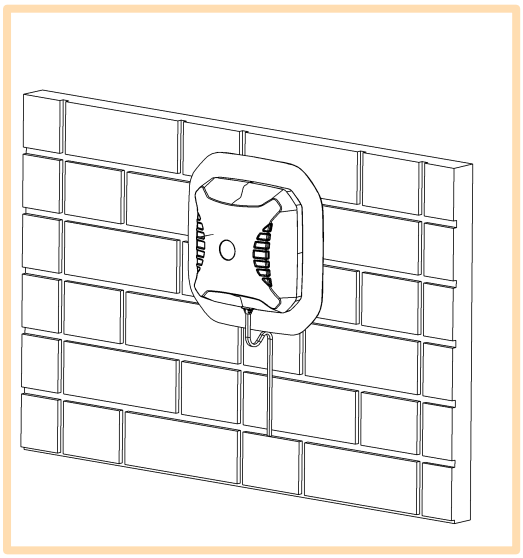
Mounting Options



Pole Mount

Pole/Wall Mounting bracket (included)



Wall Mount

Pole/Wall Mounting bracket (included)

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Additional Accessories

Extension Cables: Up to 10m HDF 195
Various connectors available
Installation poles and brackets available

See accessories technical specifications on www.poynting.tech

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