

## ANTENNAS | XPOL-16

# XPOL-16

450 – 470, 790 – 860, 1710 – 2170 MHZ HIGH GAIN CROSS POLARISED LTE MIMO ANTENNA



- Includes the new 450 - 470 MHz frequencies
- Futureproof wideband LTE antenna
- 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

### Product Overview

The antenna provides a unique frequency range from 450 – 470, 790 – 860, 1710 – 2170 MHz bands and is an innovative solution to boost reception of 4G, 3G and 2G network signals. It is a wall- or pole-mountable, dual polarised, full LTE band antenna. Incorporating two separately fed ultra wideband antenna 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-16 antenna increases signal reliability, ensures higher data throughput for users and provides a stable, high quality connection.

This improves subscriber 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 - covers wide frequency band
- Wall or pole mountable
- Lightweight
- Two antennas in one enclosure


### Application areas

- Machine-to-machine (M2M)
- Urban and rural areas
- 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 antenna is wideband, a new antenna is not needed per network operator - works on most networks
- Regulatory

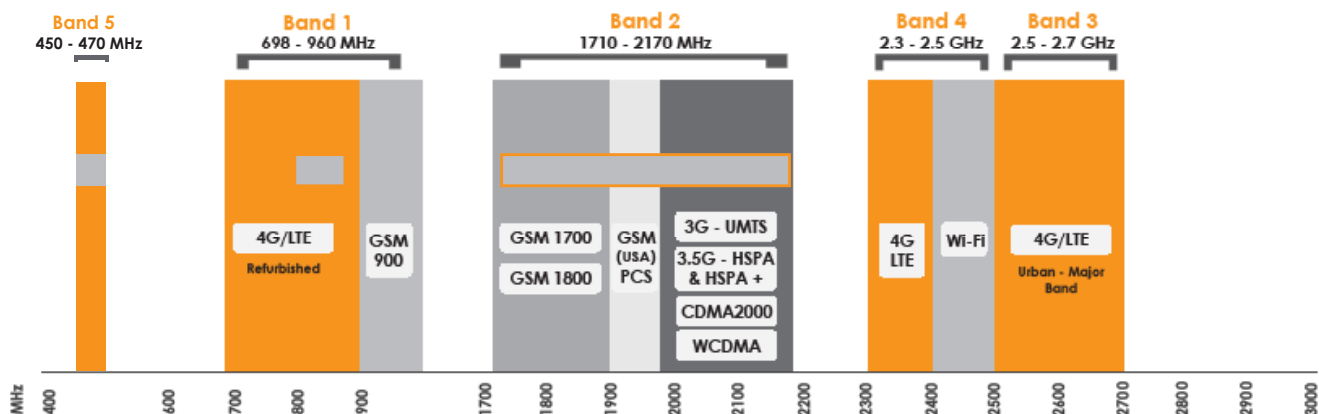


## Frequency bands

The XPOL-16 is a wide-band antenna that works from 450 - 470, 790 - 860, 1710 - 2170 MHz

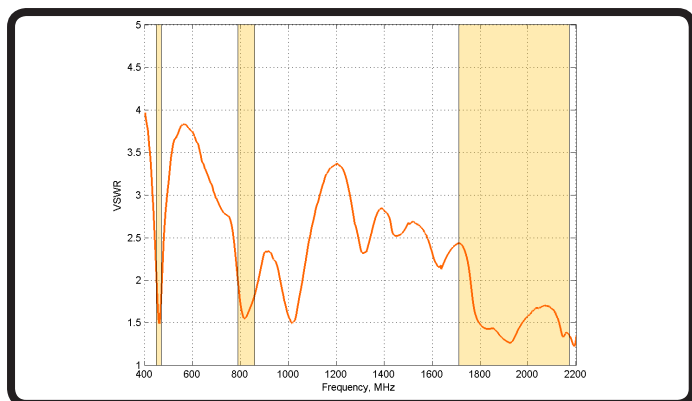
 Indicates the bands on which this antenna works

XPOL-16:



## Antenna Performance Plots

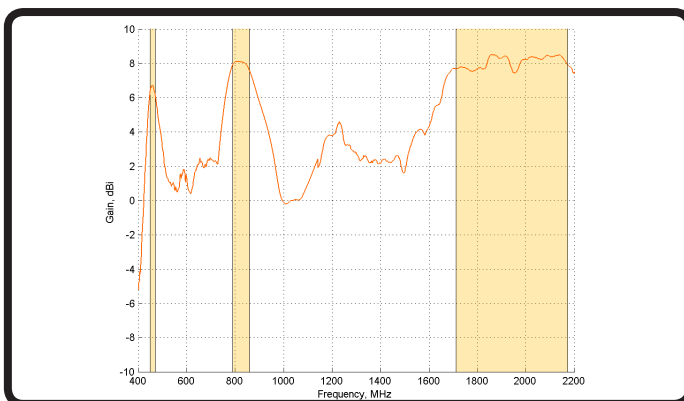
VSWR:



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

Gain: (excluding cable loss)



### Gain\* in dBi

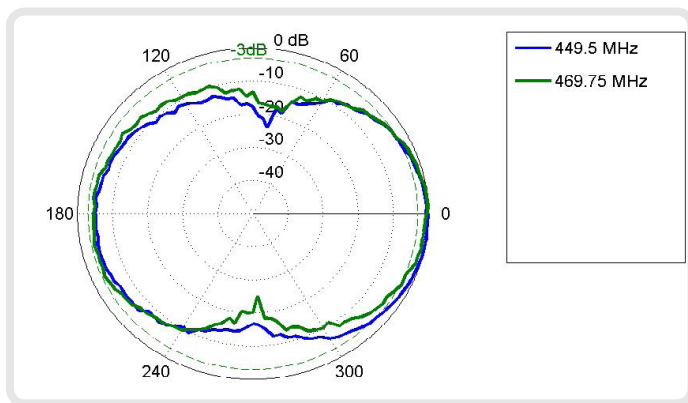
8 dBi is the peak gain across all bands from 450 - 1880 MHz

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

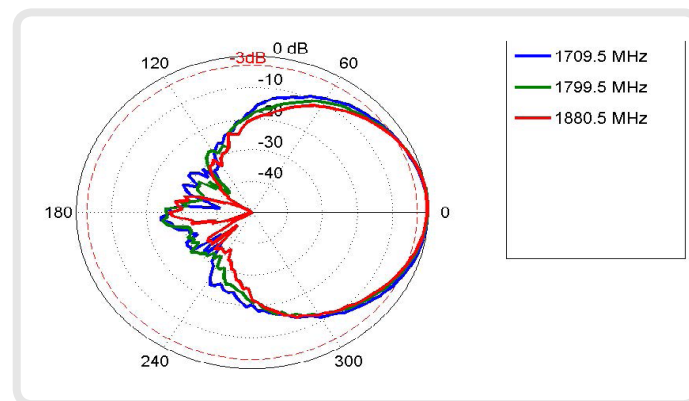
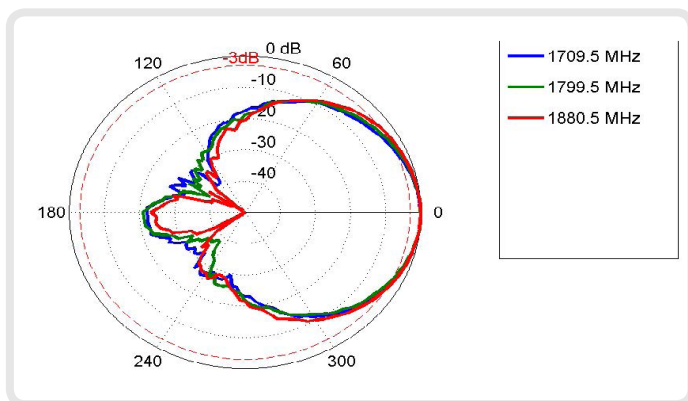
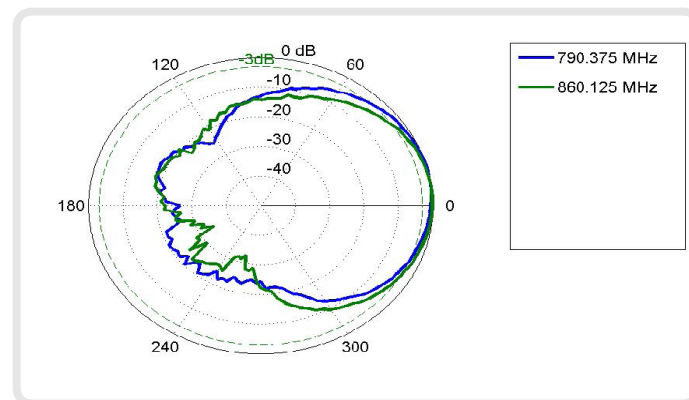
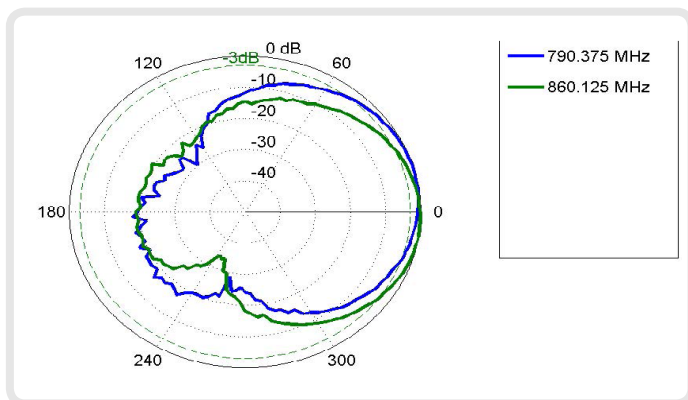
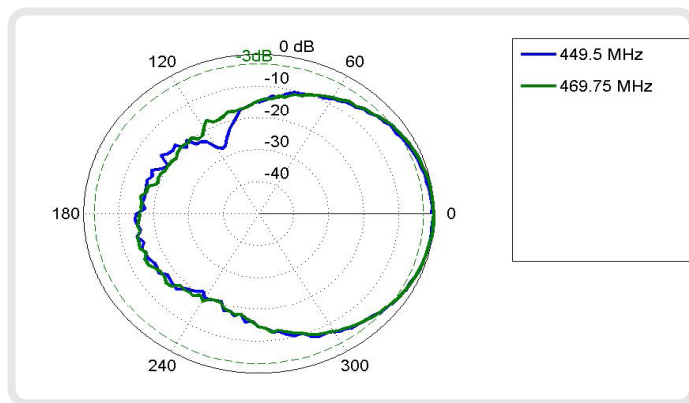
\*Antenna gain measured with polarisation aligned standard antenna

## Radiation Patterns

Azimuth:



Elevation:



## Electrical Specifications

Frequency Bands:	450 - 470 MHz 790 - 860 MHz 1710 - 2170 MHz
Gain (Max):	8 dBi
VSWR:	<2.5:1
Feed Power Handling:	10 W
Input impedance:	50 Ohm (nominal)
Polarisation:	+ 45° and - 45°
Port to Port Isolation:	>15dB
MIMO decorrelation:	< 0.3
Cable loss:	0.3 dB/m @ 450 MHz 0.35dB/m @ 900 MHz 0.53dB/m @ 2000 MHz
DC Short:	Yes

## Environmental Specifications

Wind Survival:	<120km/h
Temperature Range (Operating):	-40°C to +70°C
Environmental Conditions:	Outdoor/Indoor
Operating Relative Humidity:	Up to 98%
Storage Humidity:	5% to 95% - non condensing
Storage Temperature:	-40°C to +70°C

## Ordering Information

Commercial name:	XPOL-16
Order Product Code:	A-XPOL-0016
EAN number:	6009693810143

## Additional Accessories Available

Extension Cables:	Up to 10m HDF 195
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Various connectors available

Installation poles and brackets available

For more detailed information and availability in your region,  
visit our web site: [www.poynting.tech](http://www.poynting.tech)

## Contact Poynting

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## Mechanical Specifications

Product Dimensions (L x W x D):	350x350x90mm
Packaged Dimensions:	360x360x98mm
Weight:	1.98 kg
Packaged Weight:	2.38 kg
Radome Material:	ABS (Halogen Free)
Radome Colour:	Pantone - Cool Gray (1C) RAL - 7047

## Product Box Contents

Antenna:	A-XPOL-0016
Mounting Bracket:	1 x Z-shaped mounting bracket suitable for wall or pole mount
Cable Length:	5m
Cable Type:	Twin siamese HDF 195
Connector:	2 x Gold Plated SMA(m)

*The connector is factory mounted to the antenna*



A-XPOL-0016



## Certification Approvals and Standards

Flammability rating:	UL 94-V0 EN 13823
Water Ingress Protection Ratio/Standard:	IP 65 (NEMA 4X)
Impact resistance:	IK 08
Salt Spray:	MIL-STD 810F/ASTM B117
Product Safety:	Complies with UL, CE, EN, CSA and IEC standards



### XPOL-16

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Product Specifications may change without prior notice  
Revised: October 2015

Regulatory Compliance: RoHS 2011/65/EU Compliant | ISO 9001:2008  
Document version: TS-XPOL-0016\_v00  
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