












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	 4G LTE	 450 MHz
 Machine to Machine	 2x2 MIMO	 IP 65	 -40°C to +80°C	 Fire Resistant	

APPLICATION AREAS



Urban



Rural/Farm

- 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)

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

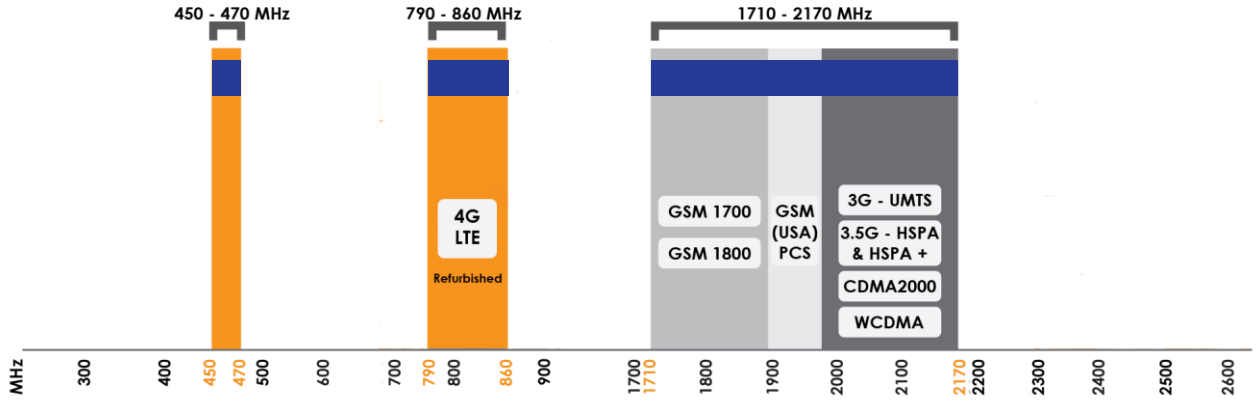
Application Areas


- 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



Frequency Bands

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



 Indicates the LTE bands on which XPOL-16 works

Antenna Overview

	
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*

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:	0.250 dB/m @ 400 MHz 0.385 dB/m @ 900 MHz 0.565 dB/m @ 1800 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

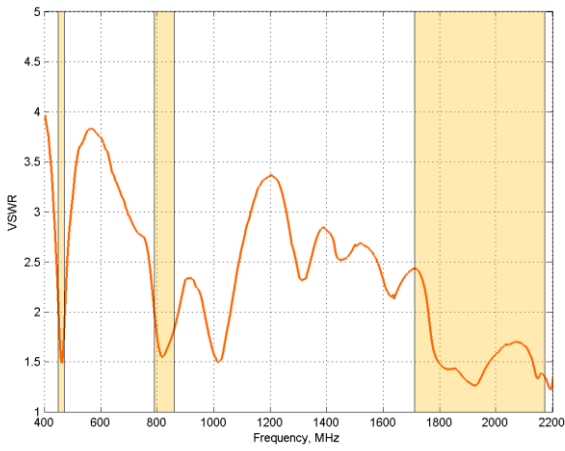
Product Dimensions:	262 mm x 262 mm x 88 mm
Packaged Dimensions:	390 mm x 390 mm x 100 mm
Weight:	1.455 kg
Packaged Weight:	2.63 kg
Radome Material:	ABS (Halogen Free)
Radome Colour:	Pantone – Cool Gray (1C) RAL - 7047
Mounting Type:	Wall and Pole Mount

Environmental Specifications, Certification & Approvals

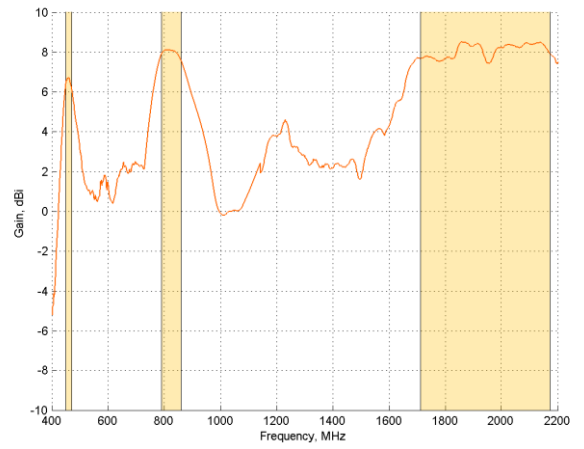
Wind Survival:	<120 km/h
Temperature Range (Operating):	-40°C to +80°C
Environmental Conditions:	Outdoor/Indoor
Water Ingress Protection Ratio/Standard:	IP 65
Salt Spray:	MIL-STD 810G/ASTM B117
Operating Relative Humidity:	Up to 98%
Storage Humidity:	5% to 95% - non-condensing
Storage Temperature:	-40°C to +80°C
Enclosure Flammability Rating:	UL 94-HB
Impact Resistance:	IK 08
Product Safety & Environmental:	Complies with CE and RoHS standards

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

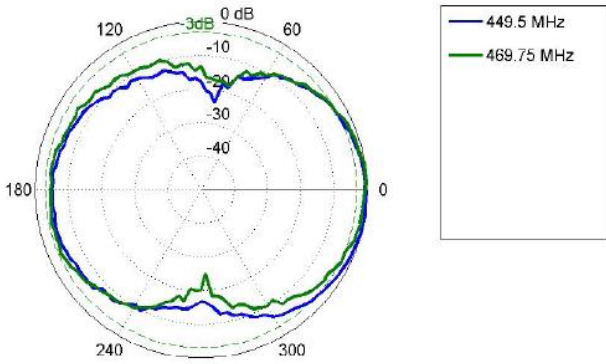
8 dBi is the peak gain across all bands from 450 – 2170 MHz

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

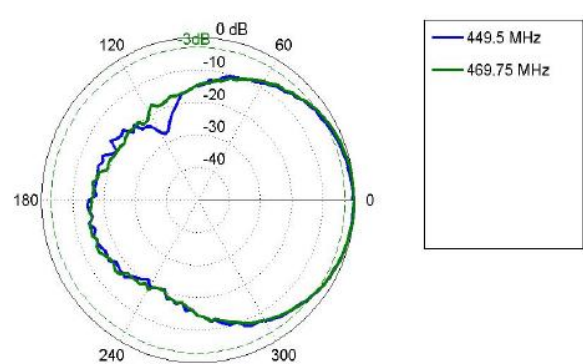
**Antenna gain measured with polarisation aligned standard antenna*

Radiation Patterns

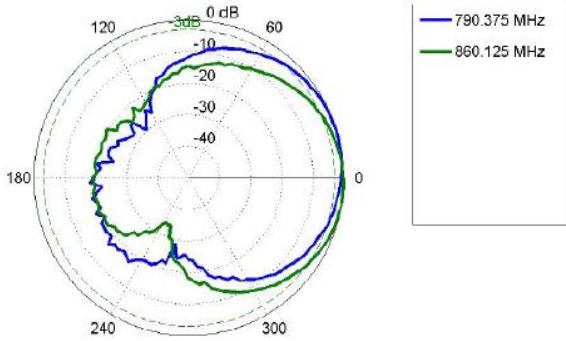
Azimuth: 450 – 470 MHz



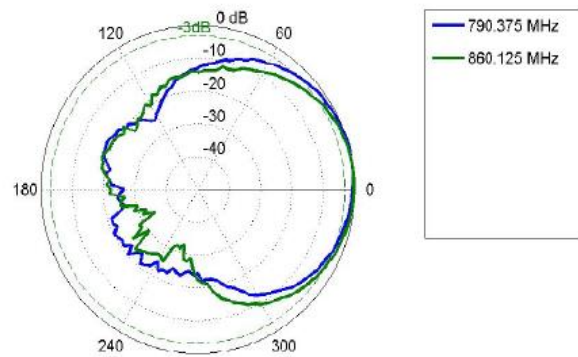
Elevation: 450 – 470 MHz



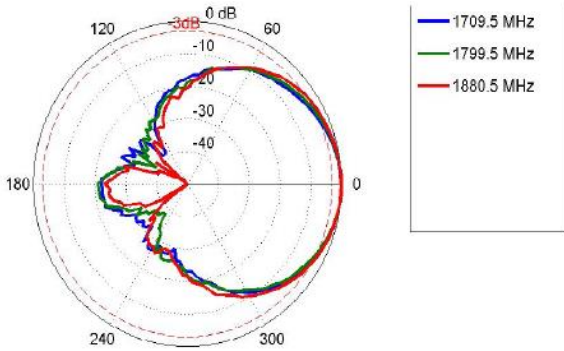
Azimuth: 790 – 860 MHz



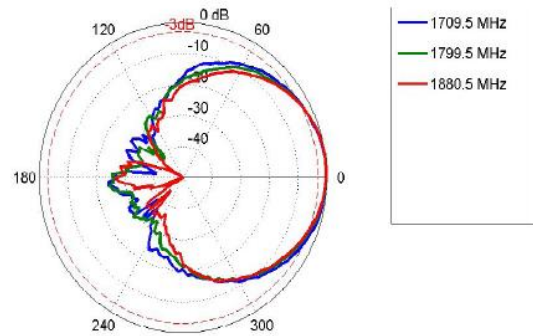
Elevation: 790 – 860 MHz



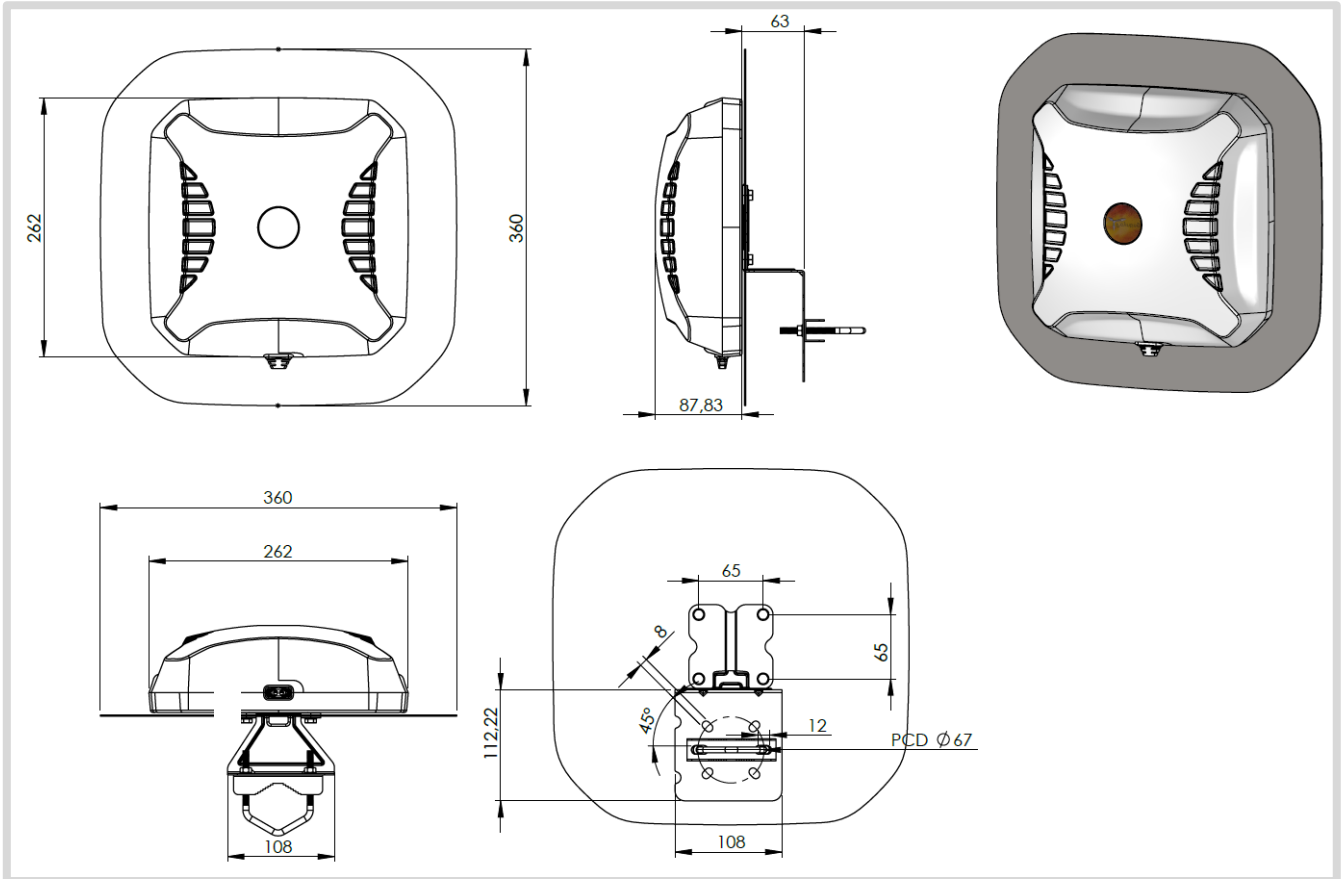
Azimuth: 1710 – 2170 MHz



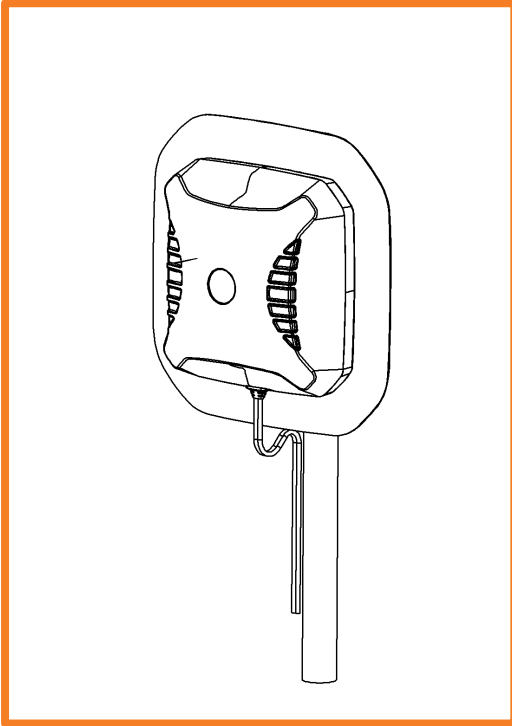
Elevation: 1710 – 2100 MHz



Technical Drawings

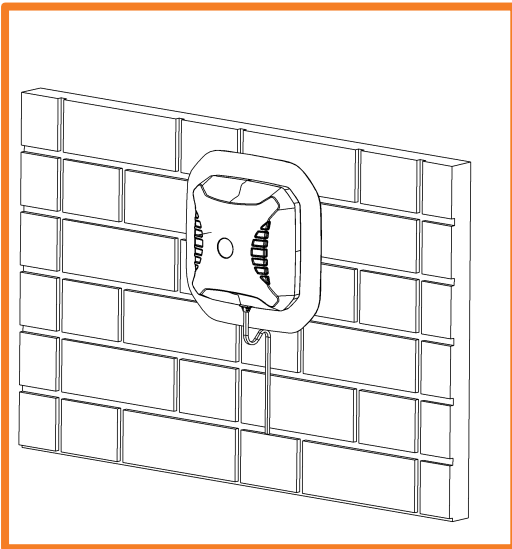


Mounting Options



Pole Mount

Pole/Wall Mounting bracket (included)



Wall Mount

Pole/Wall Mounting bracket (included)

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

CONTACT POYNTING**Poynting Antennas (Pty) Ltd - Head Office**

Unit 4, N1 Industrial Park,
Landmarks Avenue,
Samrand, 0157, South Africa

Phone: +27 (0) 12 657 0050

E-mail: info@poynting.tech

International Email: sales-global@poynting.tech

Poynting Europe

Regus Business Center Neue Messe Riem
Kronstadter Straße 4
81677 München
Germany

Phone: +49 89 7453 9002

E-mail: sales-europe@poynting.tech

Poynting USA

1804 Owen Court, Suite 104,
Mansfield,
TX 76063
USA

Phone: +1 817 533-8130

E-mail: sales-us@poynting.tech