

## ANTENNAS | XPOL-2 SERIES

# X-POLARISED, HIGH GAIN, DIRECTIONAL LTE ANTENNA

698 – 2700 MHz, 9 dBi



APPLICATION AREAS

- Futureproof directional wideband LTE and Wi-Fi 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 (IP 65)

## Product Overview

The XPOL-2 provides an innovative solution for 4G/3G and 2G networks, including Wi-Fi. The XPOL-2 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-2 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

- Wideband frequency ranges from 698 – 2700 MHz
- Also covers Wi-Fi for 2400 – 2500 MHz
- High gain directional antenna
- Two cross-polarised antennas in one enclosure; offering MIMO capability
- Wall or pole mountable
- Lightweight

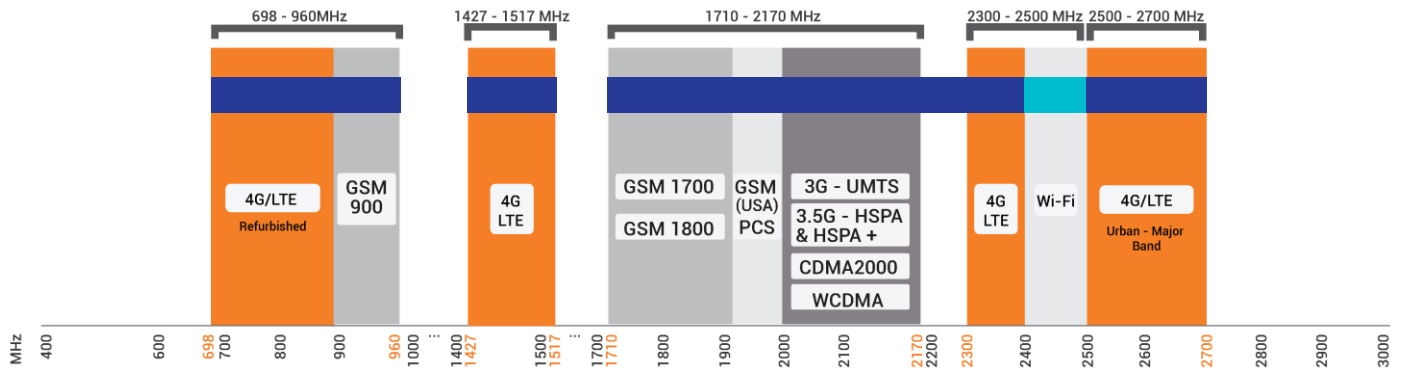
## Application Areas

- 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-2 is a directional antenna that works from | 698 – 960 MHz | 1427 – 1517 MHz | and | 1710 – 2700 MHz |



Indicates the LTE bands on which XPOL-2 works       Indicates the WI-FI bands on which XPOL-2 works

### Antenna Overview

	
Ports	2
SISO / MIMO	2x2 MIMO
Frequency Bands	698 - 2700 MHz
Polarisation	0° and 90°
Peak Gain	9 dBi
Coax Cable Type	Twin HDF 195
Coax Cable Length	5m
Connector Type	SMA (M)

*\*The coax cable & connector are factory mounted to the antenna*

## Electrical Specifications

Frequency Bands:	698 – 960 MHz 1427 – 1517 MHz 1710 – 2700 MHz
Gain (Max):	8 dBi @ 698 – 960 MHz 7 dBi @ 1427 – 1517 MHz 9 dBi @ 1710 – 2700 MHz
VSWR:	< 2:1 over 90% of the band
Feed Power Handling:	10 W
Input Impedance:	50 Ohm (nominal)
Polarisation:	0° and 90°
Coax Cable Loss:	0.385 dB/m @ 900 MHz 0.507 dB/m @ 1500 MHz 0.565 dB/m @ 1800 MHz 0.666 dB/m @ 2400 MHz
Path to Ground:	Yes

## Product Box Contents

Antenna:	A-XPOL-0002-V2
Mounting Bracket:	1x Z-shaped mounting bracket suitable for wall or pole mount

## Ordering Information

Commercial name:	XPOL-2
Order product code:	A-XPOL-0002-V2
EAN number:	6009693810051

## Mechanical Specifications

Product Dimensions	265 mm x 265 mm x 90 mm
Packaged Dimensions:	375 mm x 270 mm x 100 mm
Weight:	1.55 kg
Packaged Weight:	1.98 kg
Radome Material:	ABS (Halogen Free)
Radome Colour:	Pantone – Cool Gray (1C) RAL 7047
Mounting Type:	Wall and Pole Mount

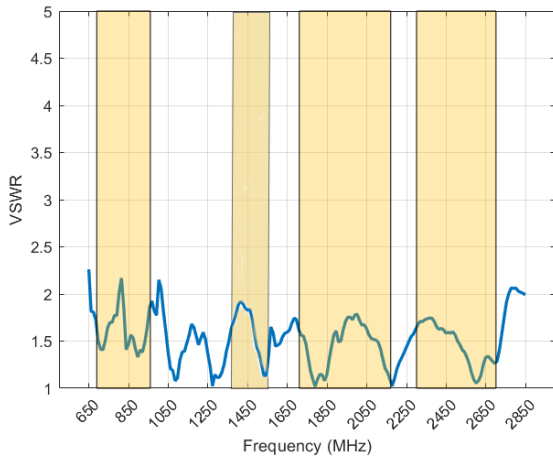
## Environmental Specifications, Certification & Approvals

Antenna Wind Survival:	<120 km/h
Temperature Range (Operating):	-40°C to +80°C
Environmental Conditions:	Outdoor/Indoor
Ingress Protection:	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

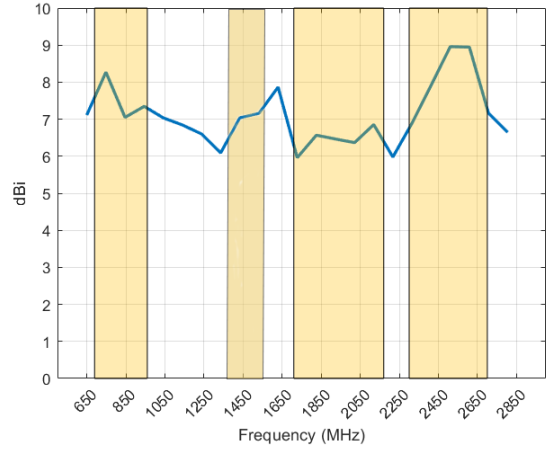


**Antenna Performance Plots**

**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-2 delivers superior performance across all bands with a VSWR of <2:1 across 90% of the bands.

\*VSWR measured with a 5m low loss cable.

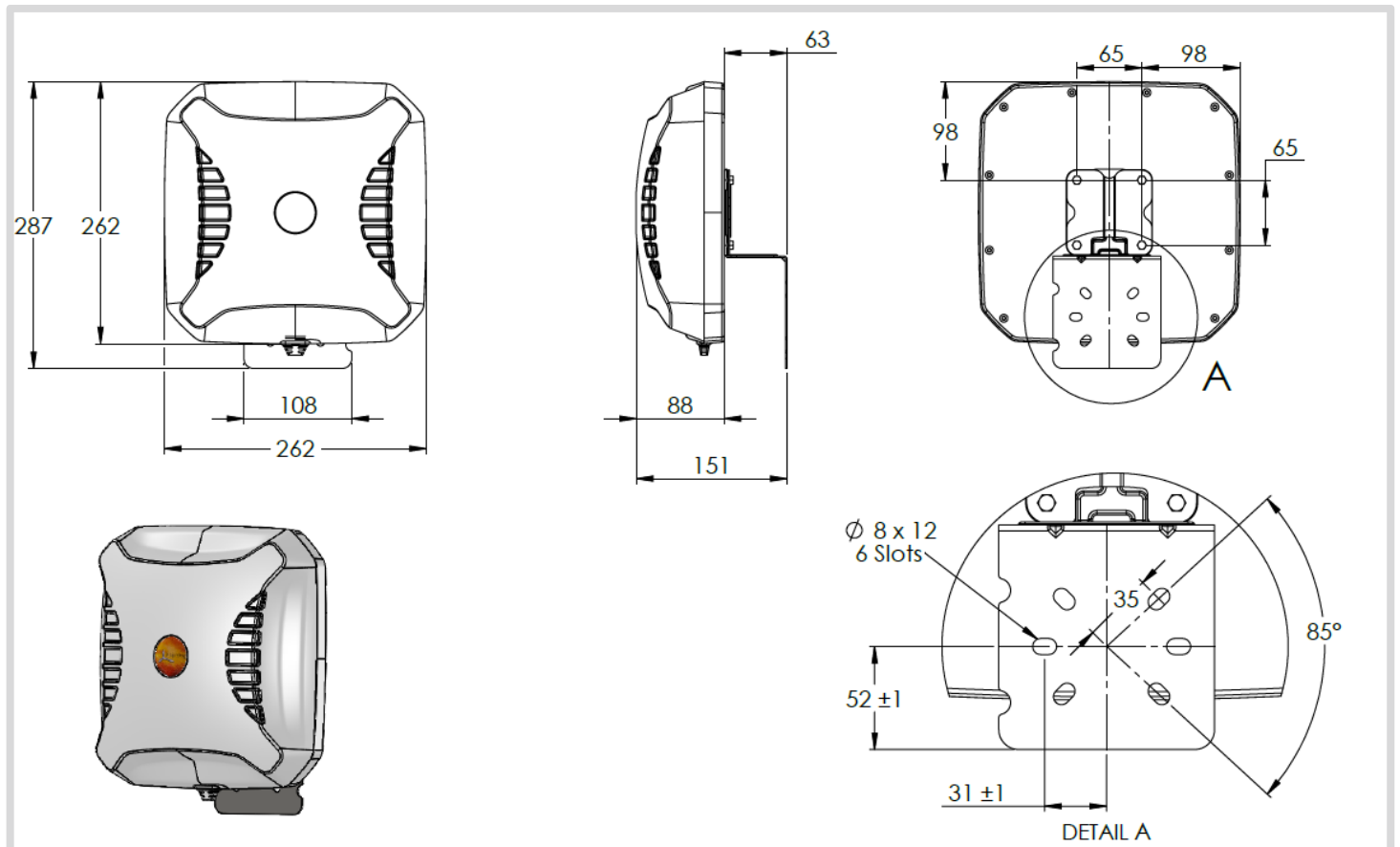
**Gain\* in dBi**

9 dBi is the peak gain across all bands from 698 – 2700 MHz

Gain @ 698 – 960 MHz:	8 dBi
Gain @ 1427 – 1517 MHz:	7 dBi
Gain @ 1710 – 2700 MHz:	9 dBi

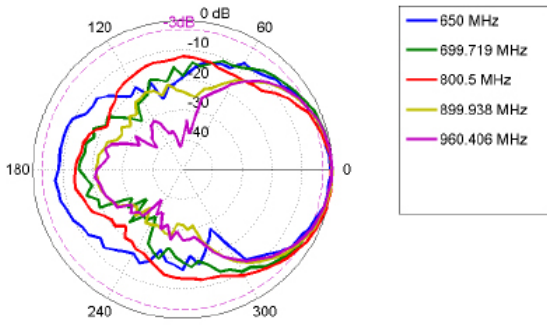
\*Antenna gain measured with polarisation aligned standard antenna

**Technical Drawings**

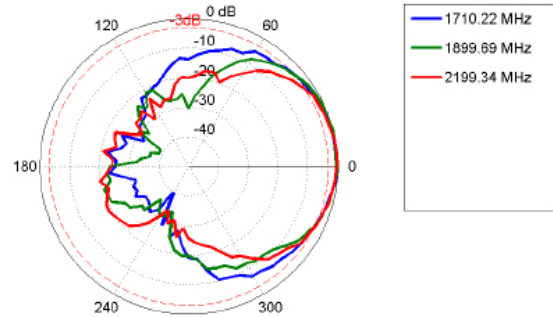


Radiation Patterns

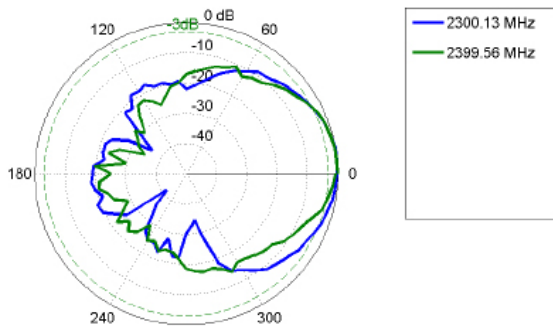
Azimuth: 698 - 960 MHz



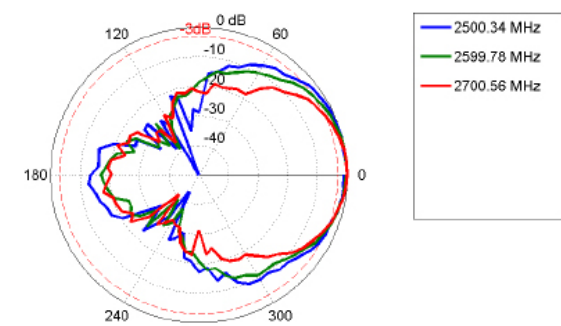
Azimuth: 1710 - 2170 MHz



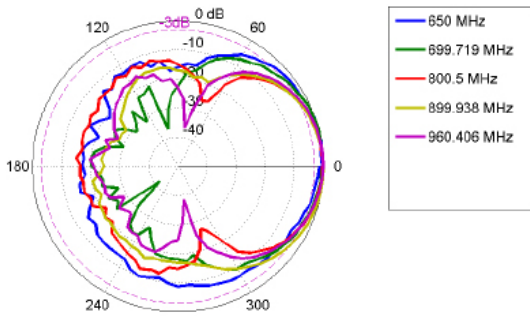
Azimuth: 2300 - 2400 MHz



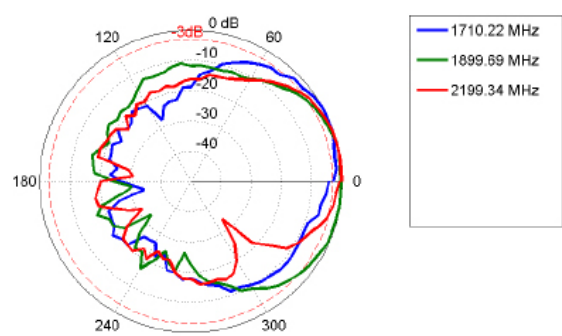
Azimuth: 2500 - 2700 MHz



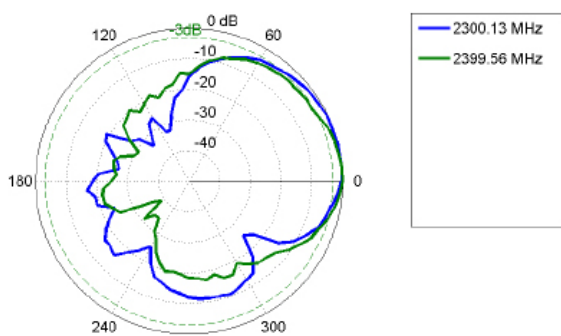
Elevation: 698 - 960 MHz



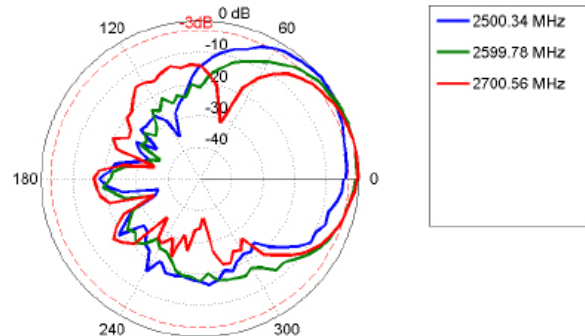
Elevation: 1710 - 2170 MHz



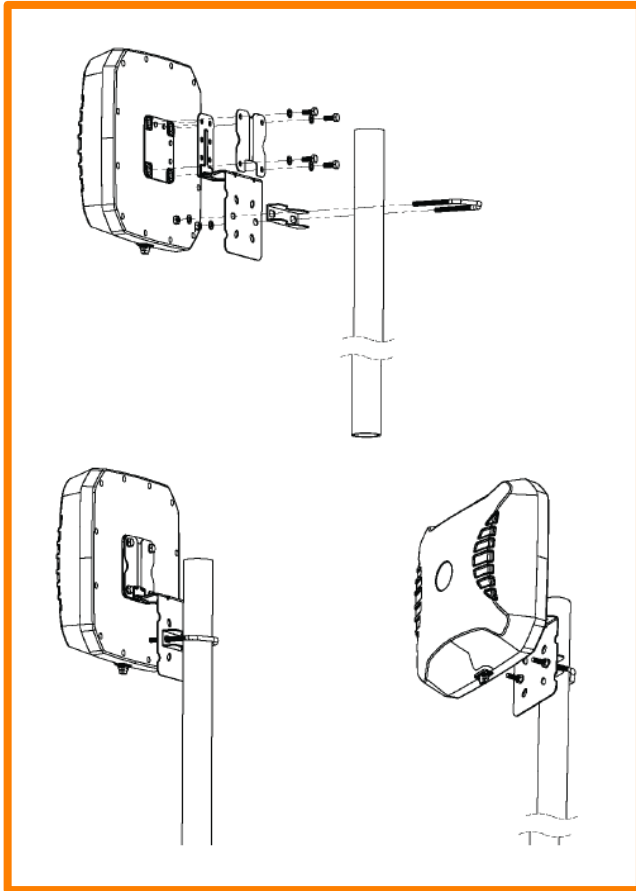
Elevation: 2300 - 2400 MHz



Elevation: 2500 - 2700 MHz

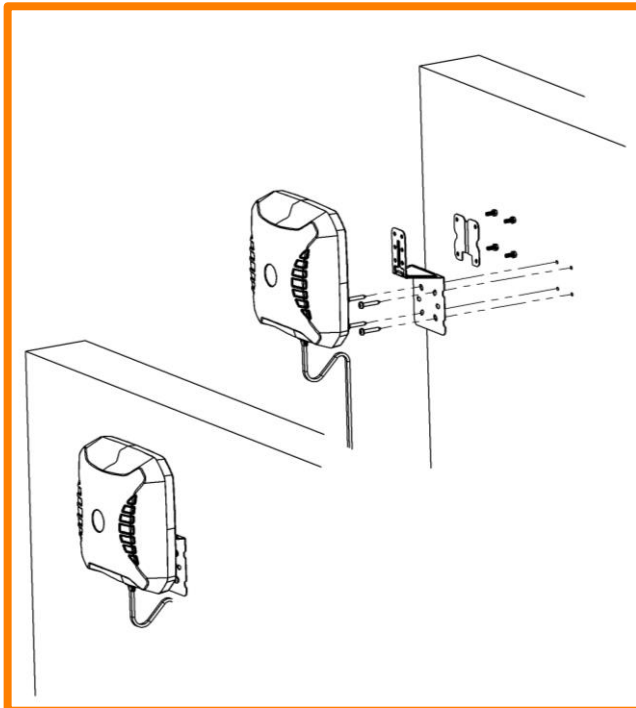


**Mounting Options**



**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](http://www.poynting.tech)

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