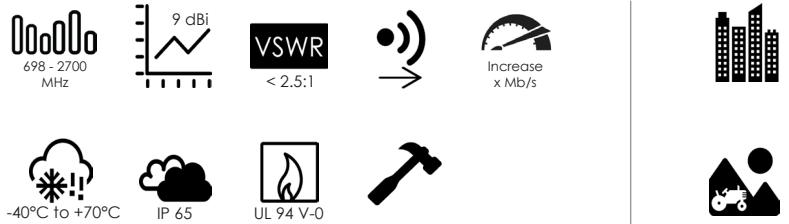


## ANTENNAS | XPOL-2

# P/N: PY.XPOL 2

## 698 - 2700 MHz HIGH GAIN CROSS POLARISED LTE MIMO ANTENNA



- Futureproof wideband LTE antenna and Wi-Fi operational frequencies.
- Backwards compatible with 3G, 2G technologies.
- Two cross polarised 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 an innovative solution for 4G / 3G and 2G networks including Wi-Fi. It is a unique 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-2 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
- Broadband covering multiple operational frequencies
- Wall or pole mountable
- Lightweight
- Waterproof
- Two cross polarized antennas in one enclosure


### Application areas

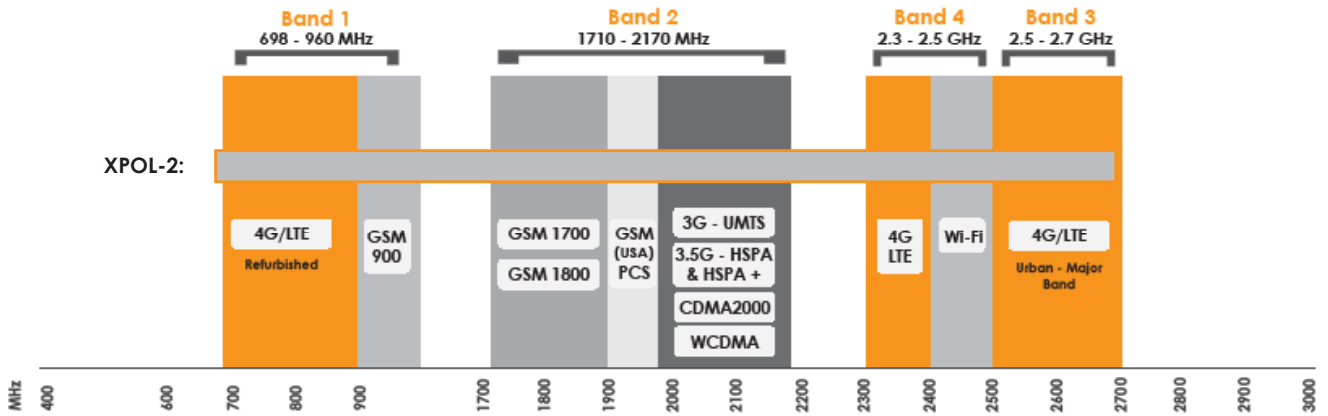
- Urban and rural areas
- Poor data signal reception (indoor or outdoor)
- Slow data transmission connection areas
- Unstable connection
- Increase system transmission reliability
- LTE fringe areas (close to an LTE area, but just out of reach)
- Network operator flexibility - as the antennas is wideband, a new antenna is not needed per network operator - works on most networks
- Regulatory



## Frequency bands

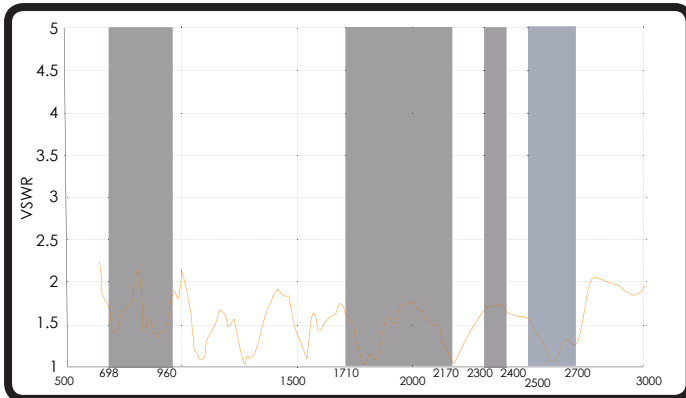
The XPOL-2 is a wide-band antenna that works from 698 - 2700 MHz

 Indicates the bands on which this antenna works



## Antenna Performance Plots

### VSWR:

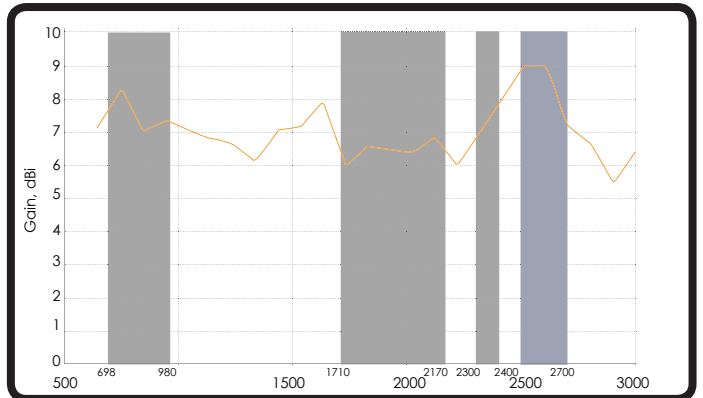


### Voltage Standing Wave Ratio (VSWR)

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-2 delivers superior performance across all bands with a VSWR of 2.5:1 or better.

### Gain: (excluding cable loss)



### Gain\* in dBi

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

Gain @ 698 - 960 MHz: 8 dBi

Gain @ 1710 - 2170 MHz: 6.5 dBi

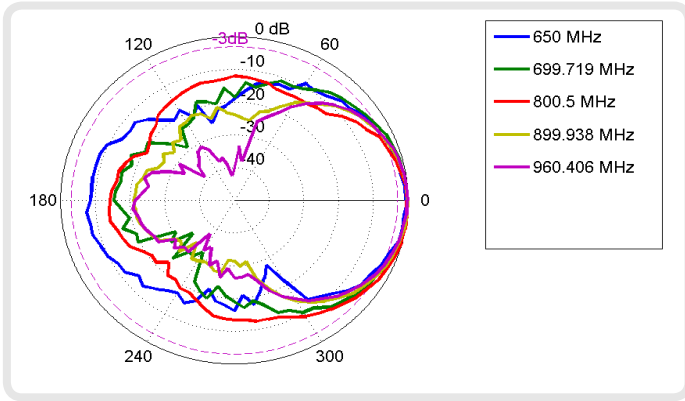
Gain @ 2300 - 2400 MHz: 7 dBi

Gain @ 2500 - 2700 MHz: 9 dBi

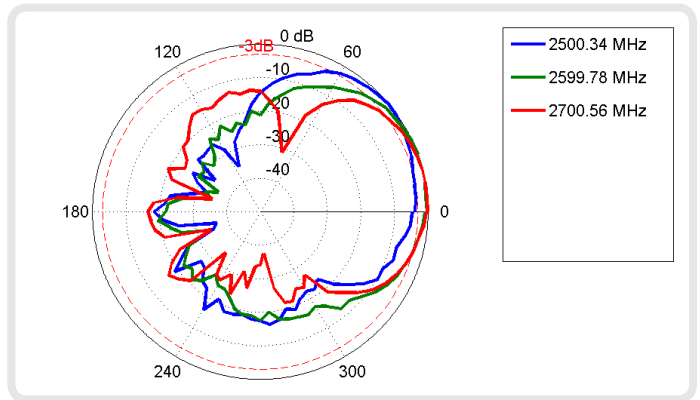
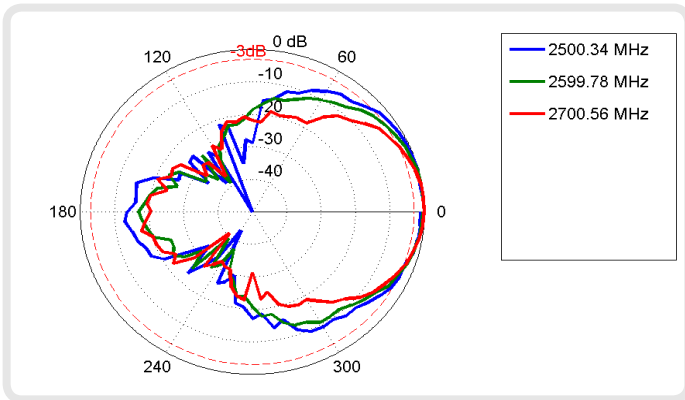
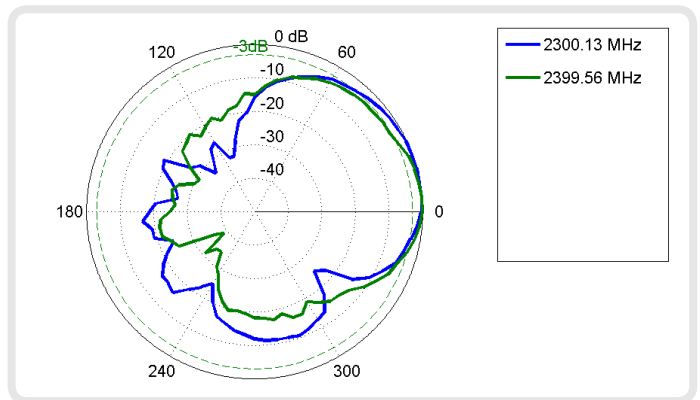
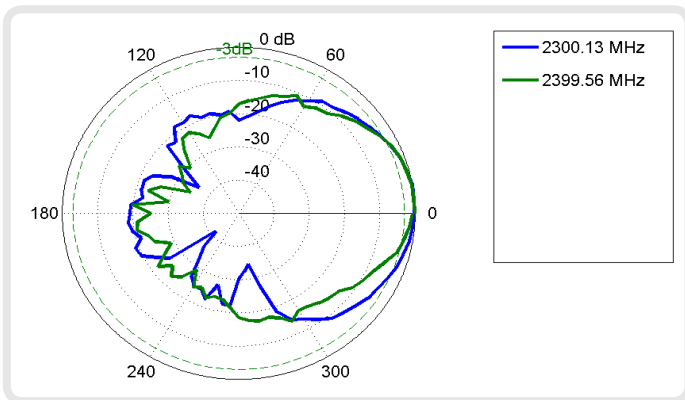
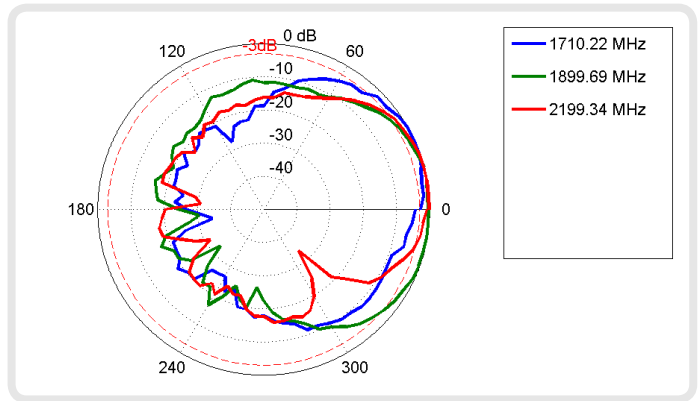
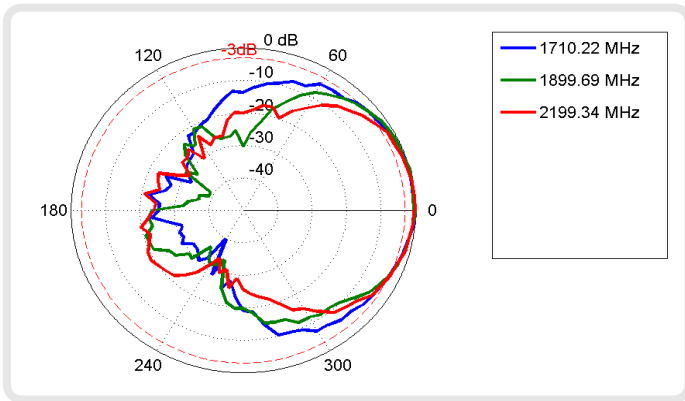
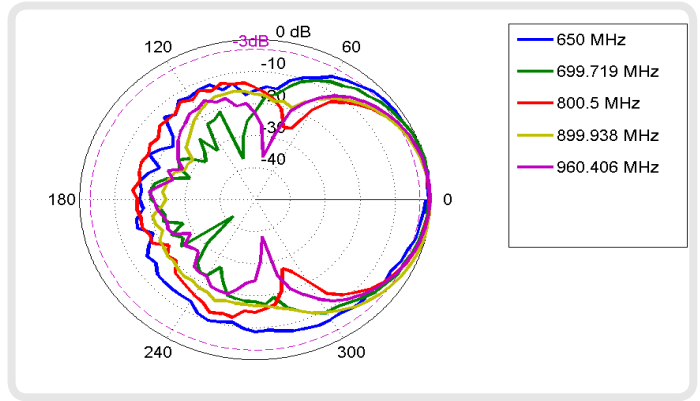
\*Antenna gain measured with polarisation aligned standard antenna

# Radiation Patterns

Azimuth:



Elevation:



## Electrical Specifications

|                         |  |
|-------------------------|--|
| Frequency Bands:        | 698 - 960 MHz<br>1710 - 2170 MHz<br>2300 - 2400 MHz<br>2500 - 2700 MHz |
| Gain (Max):             | 9 dBi  |
| VSWR:                   | < 2.5:1  |
| Feed Power Handling:    | 10 W   |
| Input impedance:        | 50 Ohm (nominal)   |
| Polarisation:           | 0° and 90°   |
| Port to Port Isolation: | >15dB  |
| MIMO decorrelation:     | < 0.3  |
| Cable loss:             | 0.35dB/m @900 MHz<br>0.53dB/m @ 2000 MHz<br>0.6dB/m @2500 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-2         |
| Order Product Code: | A-XPOL-0002-V2 |
| EAN number:         | 6009693810051  |

## Additional Accessories Available

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

## Mechanical Specifications

|                                 |                                      |
|---------------------------------|--------------------------------------|
| Product Dimensions (L x W x D): | 255 mm x 250 mm x 80 mm              |
| Packaged Dimensions:            | 290 mm x 267 mm x 98 mm              |
| Weight:                         | 1,55 kg                              |
| Packaged Weight:                | 1,98 kg                              |
| Radome Material:                | ABS (Halogen Free)                   |
| Radome Colour:                  | Pantone - Cool Gray (1C)<br>RAL 7047 |

## Product Box Contents

|                   |  |
|-------------------|--|
| Antenna:          | A-XPOL-0002-V2   |
| Mounting Bracket: | 1 x Z-shaped mounting bracket<br>suitable for wall or pole mount |
| Cable Length:     | 5m   |
| Cable Type:       | Black twin siamese HDF 195                                       |
| Connector:        | 2X SMA (M)Gold<br>plated)  |

The cables and connectors are factory mounted to the antenna



A-XPOL-0002-V2



## Certification Approvals and Standards

|  |  |
|--|--|
| Flammability rating:                     | UL 94-V0<br>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,<br>CSA and IEC standards |

