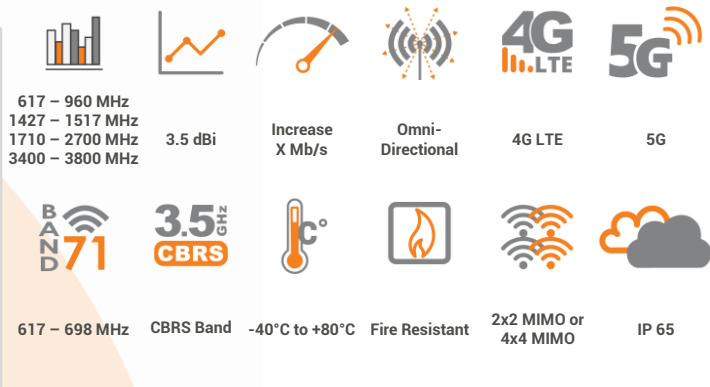


ANTENNAS | XPOL-1- 5G SERIES

X-POLARISED, OMNI-DIRECTIONAL, MIMO 5G ANTENNA

617 – 3800 MHz, 3.5 dBi



APPLICATION AREAS



Urban

- Ultra-Wideband cellular antennas from 617 to 3800 MHz
- Cross-polarised antennas for improved performance
- Omni-directional antenna with a low-profile design
- High gain for the antenna size
- 2x2 or 4x4 MIMO 4G/5G antenna for higher data throughputs
- Versatile mounting options for ease of installation
- Weather, dust, and vandal resistant enclosure (IP 65)

Product Overview

The XPOL-1-5G is Poynting's second generation "V2" of this very popular Cross Polarised (XPOL), cellular band, 2x2 or 4x4 MIMO antenna. The antenna has been completely redesigned from previous generations, featuring an all-new enclosure and high-performing antenna design. The antenna now includes the newer 3400 - 3800 MHz bands as well as the in demand lower 617 MHz band. This allows it to be utilized across different cellular operators and technologies, and it is ready for future cellular technologies up to 6GHz for 5G applications. This antenna performs exceptionally well in the following frequency bands: 617 – 960 MHz, 1427 – 1517 MHz, 1700 – 2700 MHz & 3400 – 3800 MHz, with a peak gain of 3.5 dBi across the frequency bands of operation.

The radiation patterns of this antenna are omni-directional and exceptionally well controlled, further enhancing its performance. This makes the antenna perfect for various application areas, such as urban, suburban, and commercial, to achieve the best possible coverage over a large area. The robust mechanical enclosure design makes the antenna weather, dust, and vandal resistant, granting it an IP65 rating, suitable for outdoor environments.

Features

- Ultra-wideband coverage from 617 to 3800 MHz
- X-Polarised 2x2 or 4x4 MIMO Antenna
- Wall, Pole, or Window mountable
- High pattern consistency across bands for 4G/5G carrier aggregation
- Low-profile and rugged mechanical design with an IP65 rating
- Lightweight & Rugged
- Weatherproof (IP65)

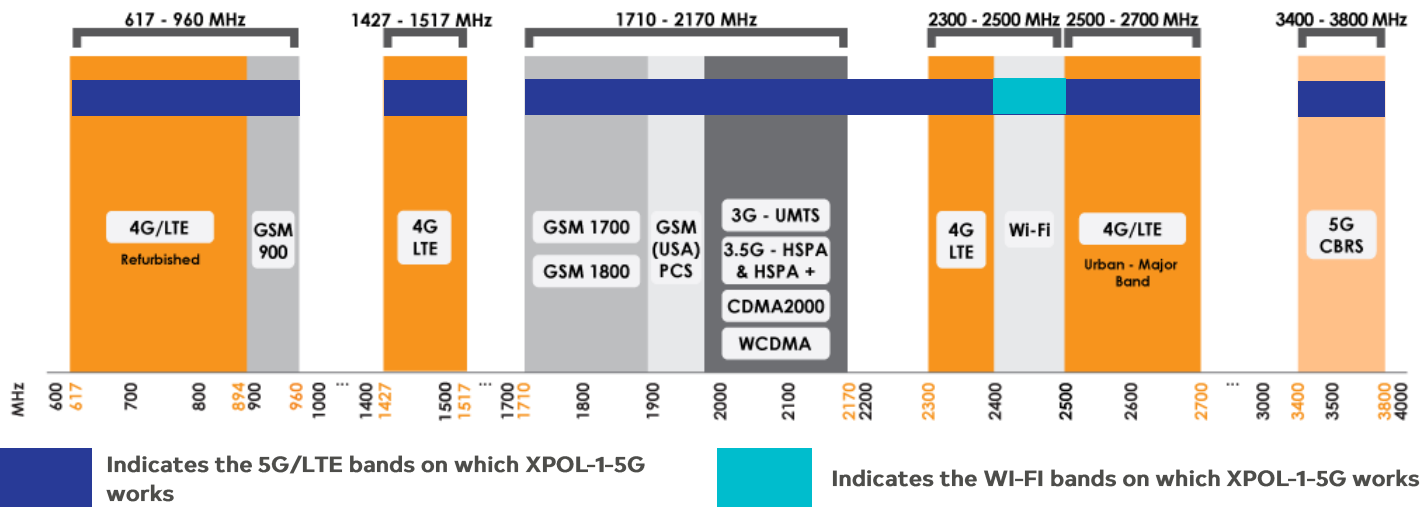
Application Areas

- Outdoor antenna for Fixed Wireless Access (FWA)
- Homes and small offices in both urban and suburban environments
- Small to medium-sized businesses across various commercial and industrial sectors such as retail outlets, petrol stations, guesthouses, banks, etc.
- Temporary offices on construction sites
- Serve as a reliable backup connectivity option for locations that use fibre or Starlink as their primary internet connection



Frequency Bands

The XPOL-1-5G is an LTE MIMO antenna that works from | 617 – 960 MHz | 1427 – 1517 MHz | 1710 – 2700 MHz | and | 3400 – 3800 MHz |



Antenna Derivatives

Product Order Code (SKU)	A-XPOL-0001-V2-21	A-XPOL-0001-V2-41
Number of Ports	2	4
SISO / MIMO	2x2 MIMO	4x4 MIMO
Coax Cable Type	HDF 195	HDF 195
Coax Cable Length	5m	5m
Connector Type	SMA (M)	SMA (M)
Product Weight	0.70 Kg	1.10 Kg
Packaged Weight	1.05 Kg	1.45 Kg
EAN	6009710920763	6009710920886

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

Electrical Specifications

Frequency Bands:	617 – 960 MHz 1427 – 1517 MHz 1710 – 2700 MHz 3400 – 3800 MHz
Gain (Max):	0.5 dBi @ 617 – 960 MHz 2 dBi @ 1427 – 1517 MHz 3 dBi @ 1710 – 2700 MHz 3.5 dBi @ 3400 – 3800 MHz
VSWR:	≤2.5:1 across 90% of the bands
Feed Power Handling:	10 W
Input Impedance:	50 Ohm (nominal)
Polarisation:	Cross Polarised
Coax Cable Loss:	0.385 dB/m @ 900 MHz 0.507 dB/m @ 1500 MHz 0.565 dB/m @ 1800 MHz 0.788 dB/m @ 3000 MHz
DC Short:	Yes, path to ground

Product Box Content

Antenna:	A-XPOL-0001-V2
Mounting Bracket:	Pole/Wall mounting bracket and window suction cups included

Mechanical Specifications

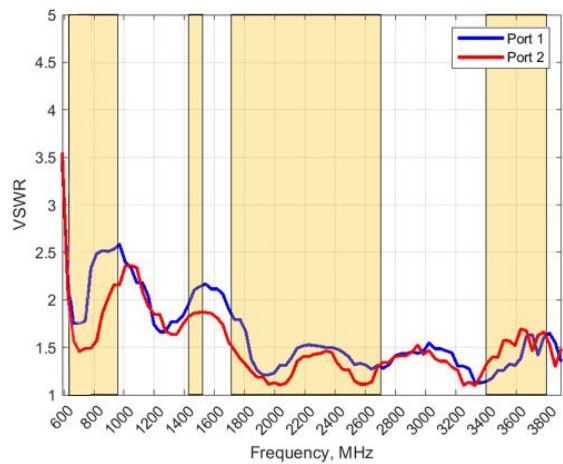
Product Dimensions	246 mm x 157 mm x 88 mm (Including bracket)
Packaged Dimensions:	271 mm x 191 mm x 120 mm
Radome Material:	UV Stable ASA
Radome Colour:	Brilliant White Pantone P 179-1 C
Mounting Type:	Wall, pole, and window mount

Environmental Specifications, Certification & Approvals	
Wind Survival:	≤250 km/h *Except for window mount configuration
Temperature Range (Operating):	-40°C to +80°C
Environmental Conditions:	Outdoor/Indoor
Water Ingress Protection Ratio/Standard:	IP 65
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 10
Product Safety & Environmental:	Complies with CE and RoHS standards



Antenna Performance Plots

VSWR



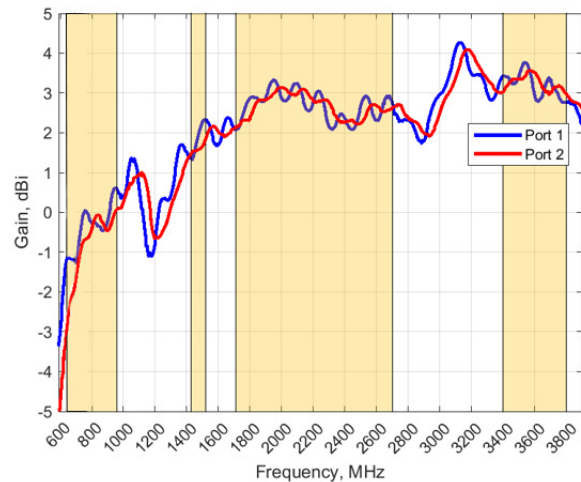
Voltage Standing Wave Ratio (VSWR)*

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-1-5G delivers superior performance across all bands with a VSWR of $\leq 2.5:1$.

*VSWR measured with a 5m low loss cable.

GAIN (EXCLUDING CABLE LOSS)



Gain* in dBi

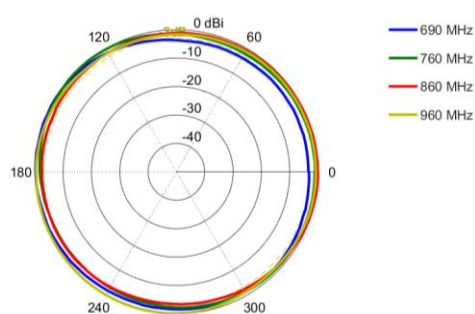
3.5 dBi is the peak gain across all bands from 617 – 3800 MHz

Gain @ 617 – 960 MHz:	0.5 dBi
Gain @ 1427 – 1517 MHz:	2 dBi
Gain @ 1710 – 2700 MHz:	3 dBi
Gain @ 3400 – 3800 MHz:	3.5 dBi

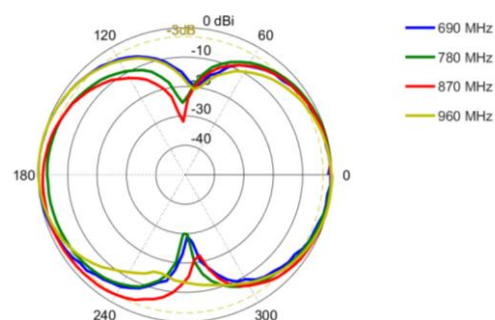
*Antenna gain measured with polarisation aligned standard antenna

Radiation Patterns

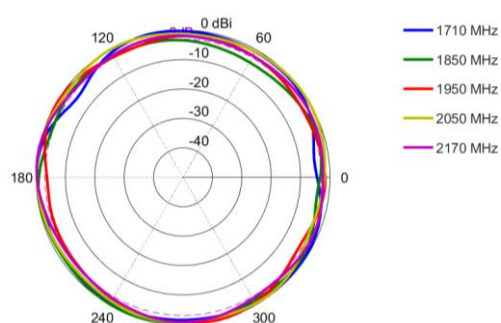
Azimuth: 690 – 960 MHz



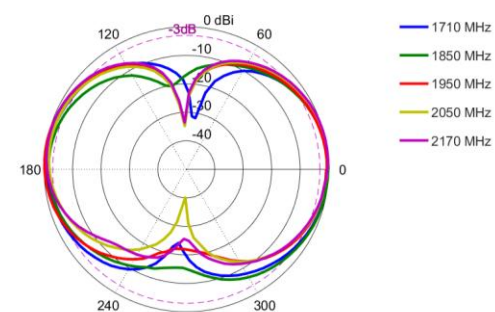
Elevation: 690 – 960 MHz



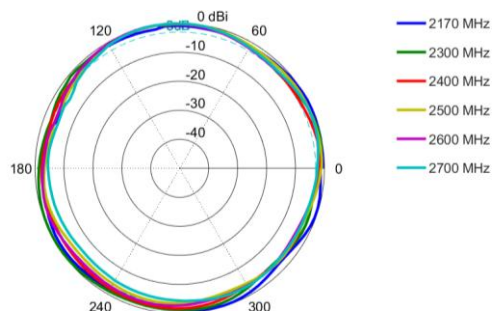
Azimuth: 1710 – 2170 MHz



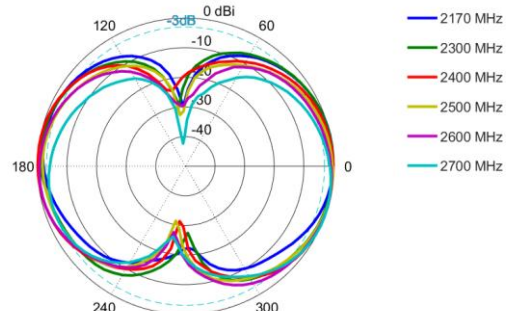
Elevation: 1710 – 2170 MHz



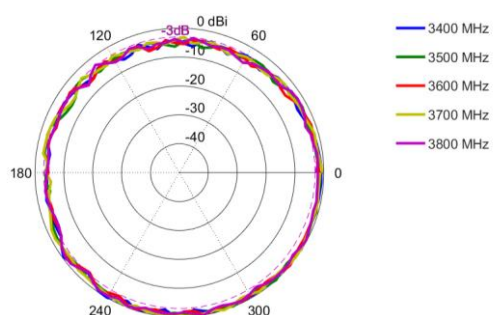
Azimuth: 2170 – 2700 MHz



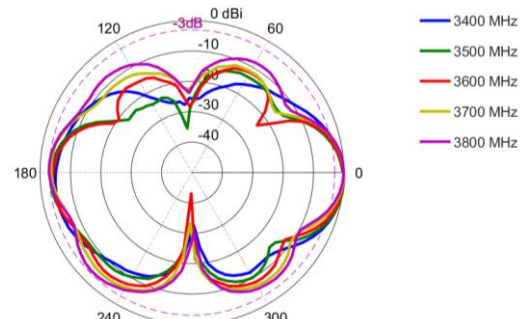
Elevation: 2170 – 2700 MHz



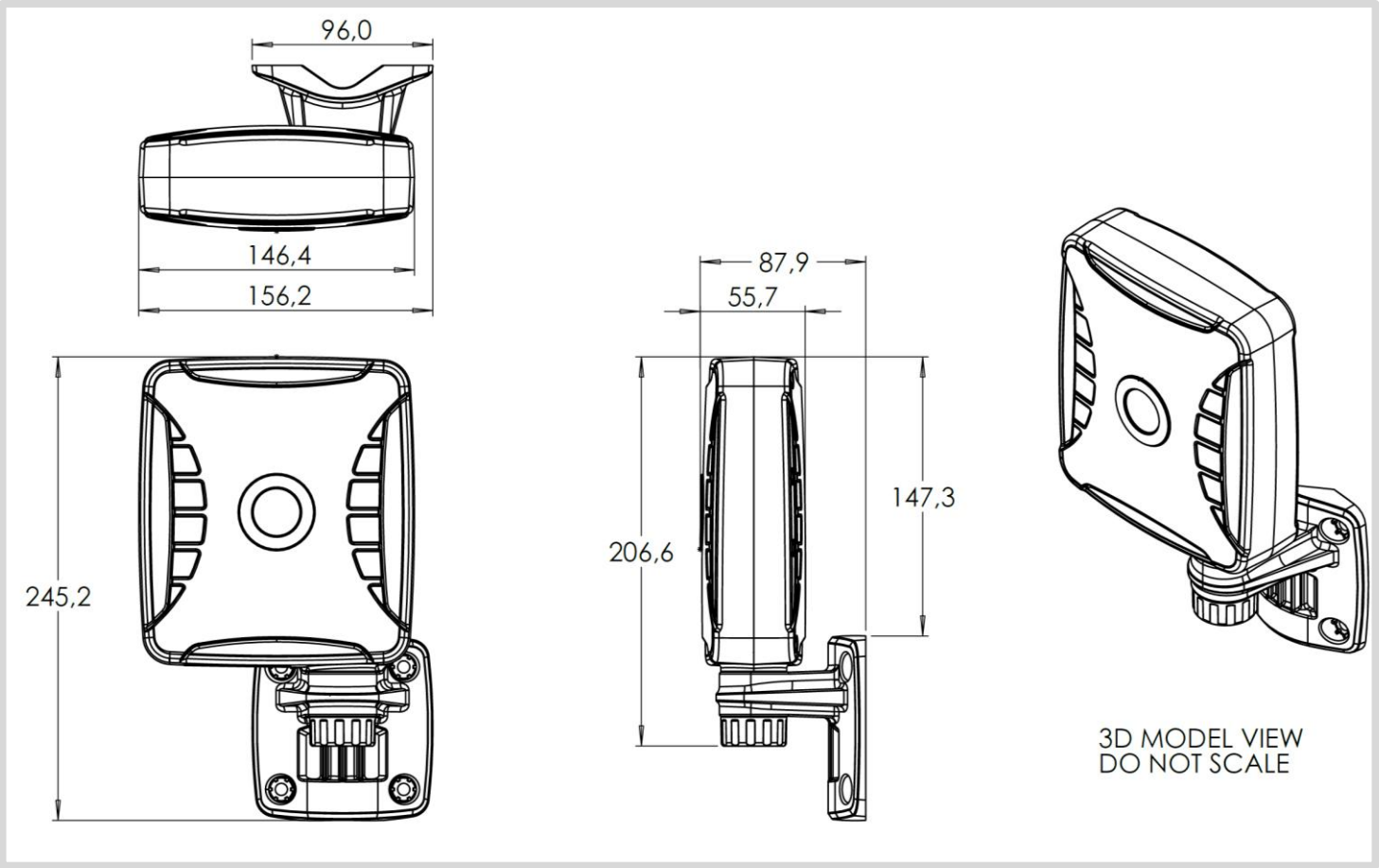
Azimuth: 3400 – 3800 MHz



Elevation: 3400 – 3800 MHz



Technical Drawings



Mounting Options



Pole Mount

Pole mounting using the provided bracket and pipe clamp



Wall Mount

Wall mounting using provided bracket and knock-in screws



Window Mount

Window mounting using the provided suction cups

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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