ANTENNAS | XPOL-1

XPOL-1
790 - 960 & 1710 - 2700 MHZ MEDIUM GAIN LTE MIMO ANTENNA

Product overview

The antenna provides an innovative solution for the signal enhancement of 4G / 3G and 2G networks. It is a unique window, 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-1 antenna increases signal reliability, ensures higher data throughput for users and provides a stable, high quality connection. This improves user experience and secures client retention. It is ideal for any application using the GSM network (LTE/HSPA/3G/EDGE/GPRS).

Features

- Medium gain directional antenna
- Wideband - covers wide frequency band
- Window, wall or pole mountable
- Lightweight
- Waterproof
- Two antennas in one enclosure

Application areas

- Urban and rural areas
- Residential and Small & Medium Business
- Small offices in semi underground 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 antennas is wideband, a new antenna is not needed per network operator - works on most networks
Frequency bands

The XPOL-1 is a wide-band antenna that works from 790 - 960 MHz & 1710 - 2700 MHz

Antenna performance plots

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

Gain (excluding cable loss)

4dBi is the peak gain across all bands from 790 - 2700 MHz

Gain @ 790 - 960 MHz: 1.6 dBi
Gain @ 1710 - 2700 MHz: 4 dBi

*Antenna gain measured with polarisation aligned standard antenna
Radiation patterns

Azimuth:

Elevation:

- 799.813 MHz
- 699.680 MHz
- 959.900 MHz

- 1710.44 MHz
- 1888.91 MHz
- 2199.53 MHz

- 2500.03 MHz
- 2600.5 MHz
- 2700.36 MHz
**Electrical specifications**

- **Frequency bands:**
  - 790 - 960 MHz
  - 960 - 1710 MHz
  - 1710 - 2700 MHz
  - 2700 - 2850 MHz

- **Gain (max):**
  - 4 dBi

- **VSWR:**
  - <2:1

- **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:**
  - 0.35Db/m @ 900 MHz
  - 0.53Db/m @ 2000 MHz
  - 0.60Db/m @ 2500 MHz

- **DC short:**
  - Yes

- **Cable length:**
  - 5m ±5%

- **Cable type:**
  - HDF 195

- **Connector:**
  - 2 x SMA(m)

**Environmental specifications**

- **Wind survival:**
  - <120 km/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

**Mechanical specifications**

- **Product dimensions (L x W x D):**
  - 215 mm x 135 mm x 85 mm

- **Packaged dimensions:**
  - 260 mm x 150 mm x 95 mm

- **Weight:**
  - 0.62 kg

- **Packaged weight:**
  - 0.85 kg

- **Radome material:**
  - ABS (Halogen Free)

- **Radome colour:**
  - Pantone - Cool Gray (1C)

  - RAL - 7047

**Product box contents**

- **Antenna:**
  - A-XPOL-0001

- **Mounting bracket:**
  - Pole, wall and window suckers included

  - The connector is factory mounted to the antenna

**Certification approvals and standards**

- **Flammability rating:**
  - UL 94-V0

- **Water ingress protection ratio/standard:**
  - IP 65

- **Impact resistance:**
  - IK 08

- **Salt spray:**
  - MIL-STD 810F/ASTM B117

- **Product safety:**
  - Complies with UL, CE, EN, CSA and IEC standards

**Contact Poynting**

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