# 5G LTE 2x2 MIMO Panel Antenna

## 698-3800 MHz

LTE-XPOL-002-5G Series

The LTE-XPOL-002-5G is the third generation of this very popular Cross Polarised (LTE-XPOL-002-V2), cellular band, 2x2 MIMO antenna. The antenna enclosure effectively looks the same as the second generation "V2" but has been completely redesigned on the inside. We have used advanced metamaterial technology, making use of Artificial Magnetic Conductors (AMC) and new registered/patent pending radiator configuration, which is proving to yield exceptional improvements in bandwidth and gain. Radiation patterns of this antenna are exceptionally well controlled, further adding to the performance of the antenna.

The LTE-XPOL-002-5G antenna includes the newer 3400 - 3800 MHz bands, which were not previously covered by our V2 and is suitable for 2G, 3G, 4G & 5G. This antenna performs exceptionally well in the following frequency bands: 698 – 960MHz, 1700 –2170MHz, 2300 – 2700MHz & 3400 – 3800MHz. In addition to the new bands, the gain in the 1700MHz and 2.7GHz is around 3dB higher than the "V2" over the same frequency bands!

### Features:

- 2-3dB higher gain over all the bands compared to "V2"
- New 3400 to 3800MHz, 5G band with 11dBi gain
- Consistent broadband performance
- X-Polarised 2X2 MIMO Antenna
- Wall or pole mountable
- Lightweight & Rugged
- Weatherproof & waterproof (IP65)
- High pattern consistency across bands for 4G/5G carrier aggregation
- Available in two versions:
  - LTE-XPOL-002-5G: 10m Twin HDF-195 terminated with SMA male connectors
  - LTE-XPOL-002-5G-NF: 2 x Integrated N female connectors

### Applications:

- Outdoor antenna for Fixed Wireless Access (FWA)
- Consumer LTE/5G internet connectivity
- Industrial & Commercial LTE/5G deployments
- Urban and rural household reception enhancement
- Agricultural & Farming LTE/5G data distribution
- Power, Energy & Water telemetry access
- Oil & Gas communication systems
- Municipal & Government systems
- Repeaters & coverage enhancement amplifiers

### Electrical Specifications

| Series | LTE-XPOL-002-5G | | |
|---|---|---|---|
| Frequency MHz | 698-960 | 1710-2700 | 3400-3800 |
| Gain (peak) dBi | 9 | 10 | 11 |
| VSWR | <1.5:1 (over 95% of the band) | | |
| Power (max.) W | 20 | | |
| Impedance Ω | 50 (nominal) | | |
| Polarisation ° | ±45 | | |
| DC Short | Path to ground | | |
| Power W | 10 | | |

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## Mechanical Specifications

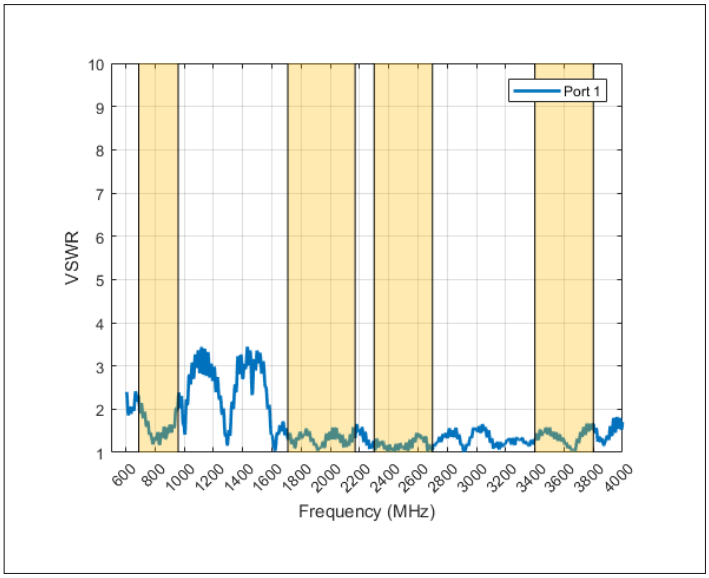
| Series | LTE-XPOL-002-5G |
|---|---|
| Mounting | Pole or Wall Mount (bracketed included) |
| Dimensions mm | 265 x 26 5 x 90 |
| Radome Material | UV Stable ASA |
| Radome Colour | Brilliant White (Pantone P 179-1 C) |
| Cable / Connectors | LTE-XPOL-002-5G: 10m Twin HDF-195 terminated with SMA male connectors<br>LTE-XPOL-002-5G-NF: 2 x Integrated N female connectors |

## Environmental Specifications

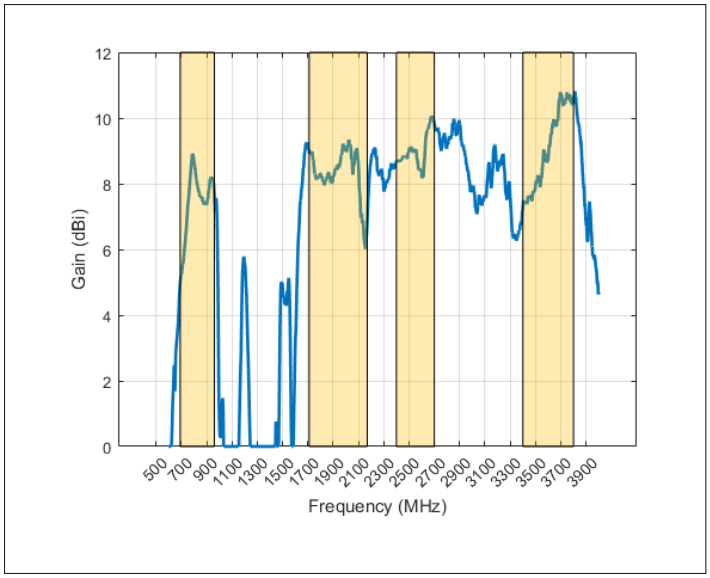
| Series | LTE-XPOL-002-5G |
|---|---|
| Wind Survival | ≤ 160 km/h (using standard Z-Bracket included)<br>≤ 250 km/h (using optional BRKT-30*) |
| Temperature °C | -40 to +80 |
| Environmental Conditions | Outdoor / Indoor |
| Water Ingress | IP65 |
| Salt Spray | MIL-STD 810F/ASTM B117 |
| Operating Relative Humidity | Up to 98% |
| Enclosure Flammability Rating | UL 94-HB |
| Impact Resistance | IK08 |
| Product Safety & Environmental | Complies with CE & RoHS standards |

*BKT-30 is an optional accessory, which is required for high wind areas at up to 250km/h. The BRKT-30 requires 4 x M6 x 29mm bolts for installation (not included).

### Typical VSWR




### Typical Gain




### LTE-XPOL-002-5G (Back)

### LTE-XPOL-002-5G-NF (Back)

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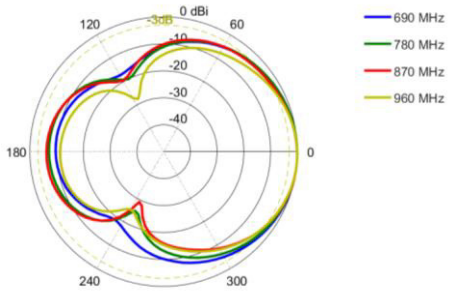
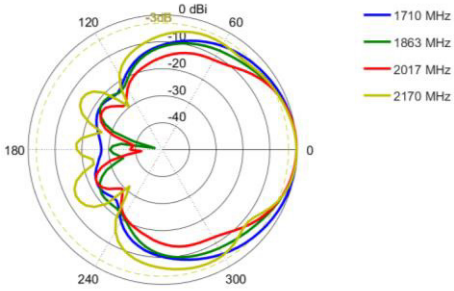
LTE-XPOL-002-5G Series

## Radiation Patterns

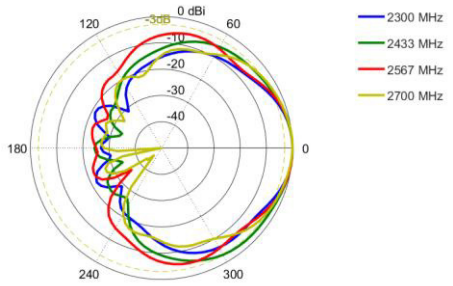
### Azimuth (Top View): 698-960 MHz



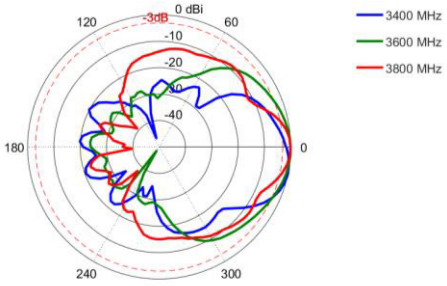

### Azimuth (Top View): 1710-2170 MHz



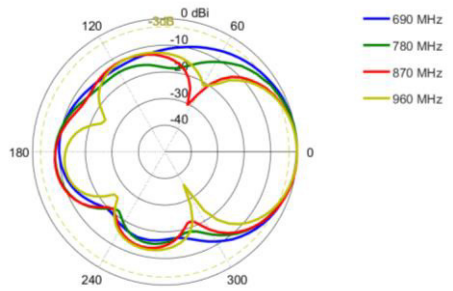

### Azimuth: 2300-2700 MHz



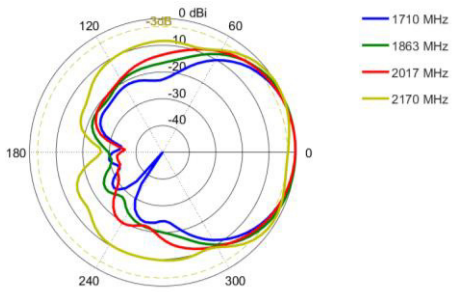

### Azimuth: 3400-3800 MHz



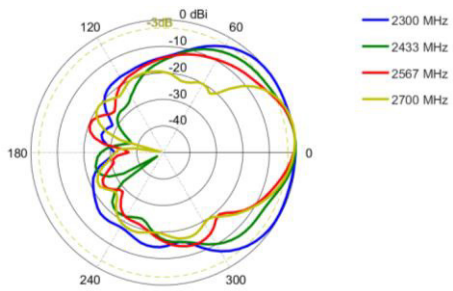

### Elevation1 (Side View): 698-960 MHz




### Elevation1 (Side View): 1710-2170 MHz




### Elevation1 (Side View): 2300-2700 MHz




### Elevation1 (Side View): 3400-3800 MHz