

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

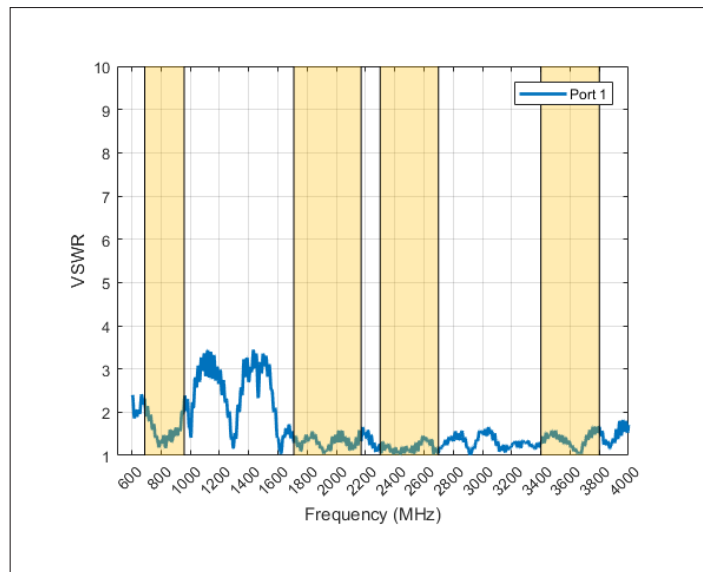
Series	LTE-XPOL-002-5G
Mounting	Pole or Wall Mount (bracketed included)
Dimensions mm	265 x 265 x 90
Radome Material	UV Stable ASA
Radome Colour	Brilliant White (Pantone P 179-1 C)
Cable / Connectors	LTE-XPOL-002-5G: 10m Twin HDF-195 terminated with SMA male connectors LTE-XPOL-002-5G-NF: 2 x Integrated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

Environmental Specifications

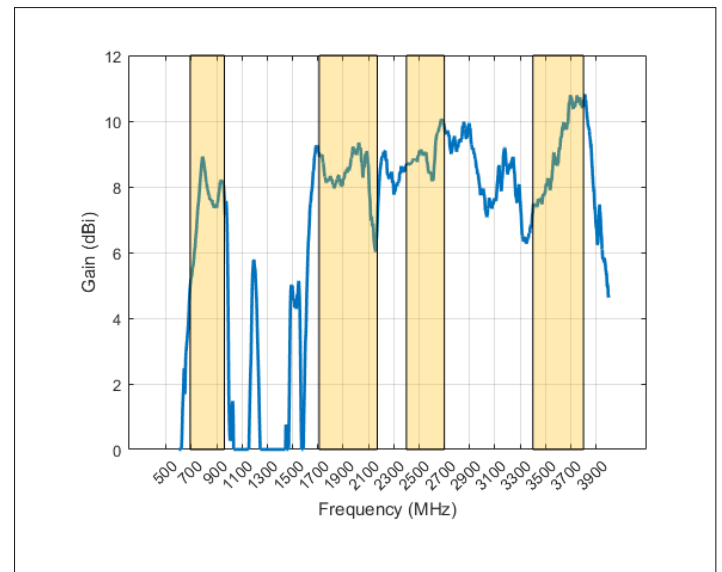
Series	LTE-XPOL-002-5G
Wind Survival	≤ 160 km/h (using standard Z-Bracket included) ≤ 250 km/h (using optional BRKT-30*)
Temperature °C	-40 to +80
Environmental Conditions	Outdoor / Indoor
Water Ingress	IP65
Salt Spray	MIL-STD 810F/ASTM B117
Operating Relative Humidity	Up to 98%
Enclosure Flammability 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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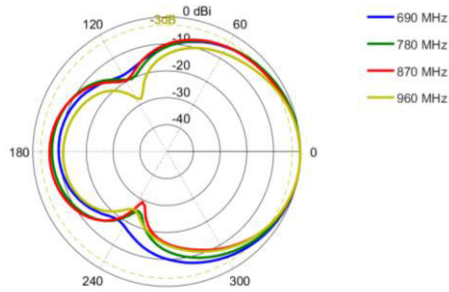
698-3800 MHz

LTE-XPOL-002-5G Series

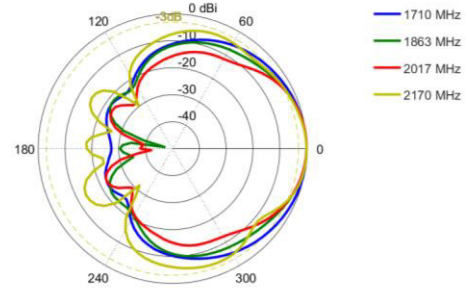


Radiation Patterns

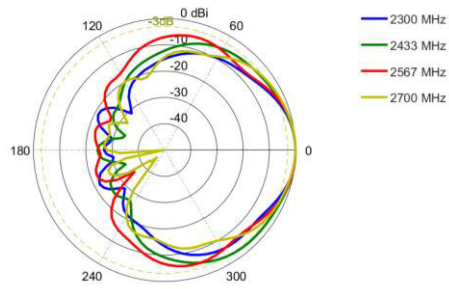
Azimuth (Top View): 698-960 MHz



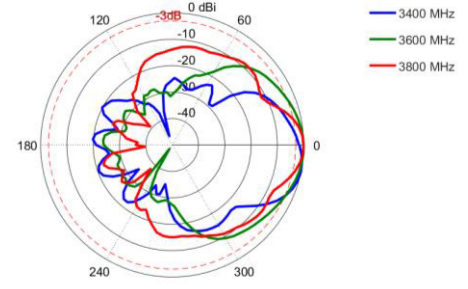
Azimuth (Top View): 1710-2170 MHz



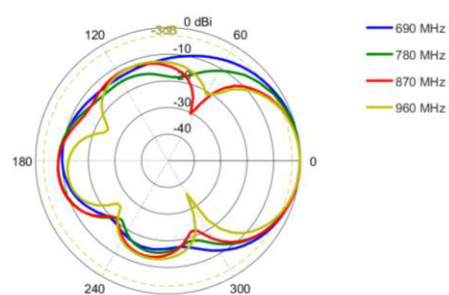
Azimuth: 2300-2700 MHz



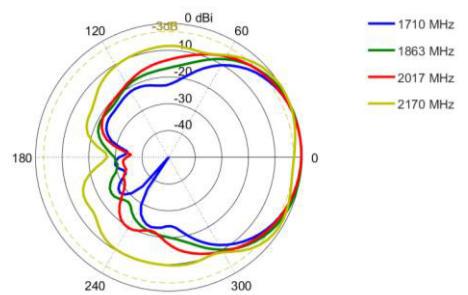
Azimuth: 3400-3800 MHz



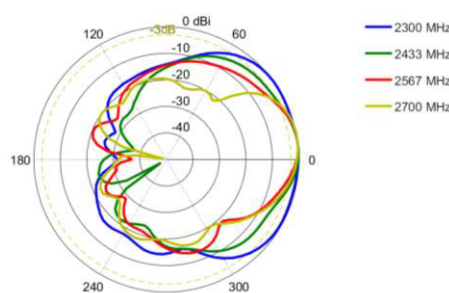
Elevation1 (Side View): 698-960 MHz



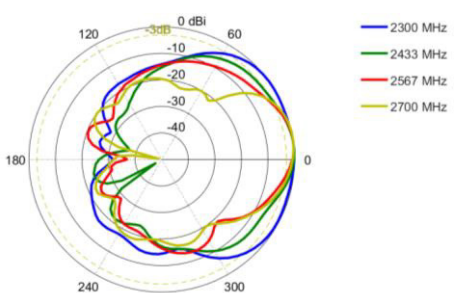
Elevation1 (Side View): 1710-2170 MHz



Elevation1 (Side View): 2300-2700 MHz



Elevation1 (Side View): 3400-3800 MHz



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