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Powertec Wideband Grid Antenna, 698 to 4000 MHz

Model Number

VGR-6940-20

Polarisation

SISO

Design Type

Grid Parabolic

RF Category

Cellular

The Powertec Wideband Parabolic Grid Antenna is designed to provide high gain across the entire 3G, 4G, and 5G bands on all cellular networks throughout the Asia Pacific region. This grid antenna combines a reverse-log feedhorn with its 900 x 600 mm reflector to produce peak gains from 11.4 to 13.3 dBi on the low-band and as high as 20.8 dBi on the 4G-5G mid-band.

Ideal for areas with very low or noisy signal to maximise the input signal for cellular modems or Cel-Fi repeaters. Due to the narrow beamwidth, this antenna can also be used in areas where multiple cell sites are present and isolating a single tower is required. Two antennas can be pole mounted on the appropriate angles in a MIMO configuration to support high-speed data throughput.

The antenna has been carefully designed to provide higher gain on the upper frequency bands which experience weaker signal strength at distance, providing best possible performance with 5G and LTE-A Pro Carrier Aggregation technologies. No adjustment of feedhorn is required to support all frequency bands simultaneously.

This antenna is recommended for long range 3G, 4G, or 5G communication systems. Weighing 2.2 kg and with a low wind-load this antenna can safely be mounted at height with a simple supporting structure.

- Very high gain for long distance connections and noisy conditions
- Powder coated cast aluminium reflector
- Wideband covering all cellular bands from 700 to 4000 MHz simultaneously
- Short cable tail with 4.3-10 Female or N Female Low PIM connector

Antenna Technical Data

PHYSICAL CHARACTERISTICS

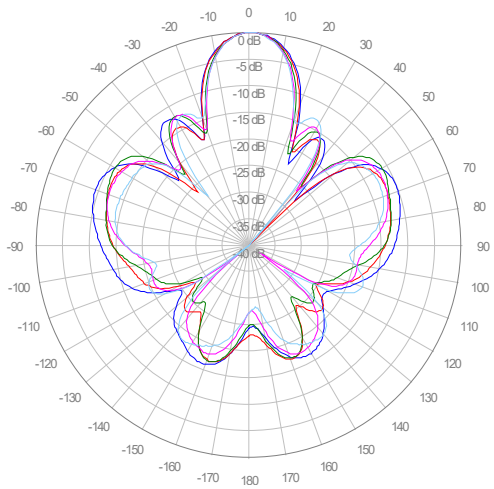
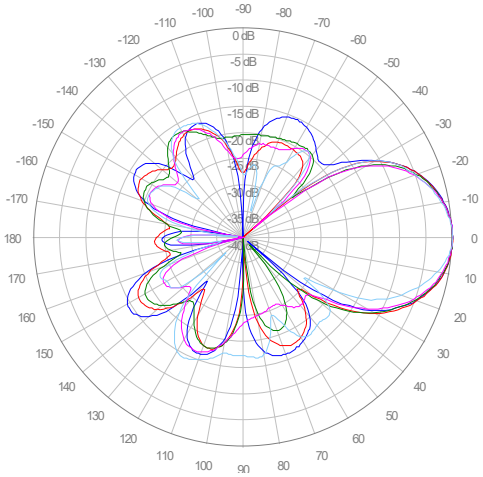
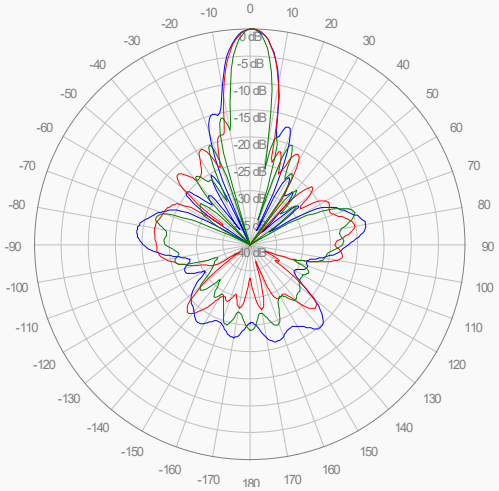
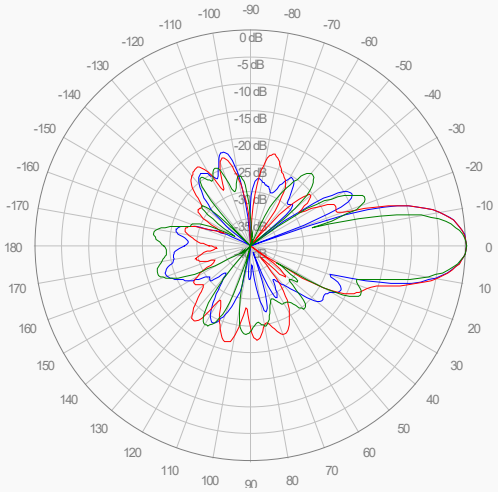
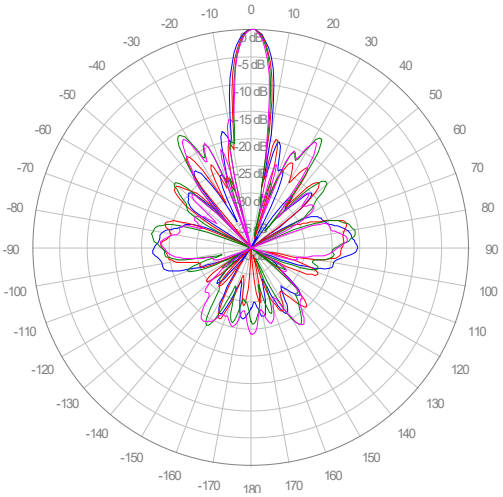
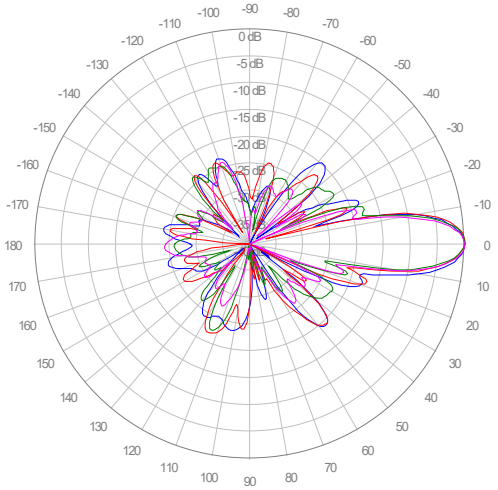
Construction Material	Cast Aluminium	RF Connections	1
Radome Colour	Powder Coat	Environmental Rating	No Data
Dimensions	990 x 600 x 400 mm	Operating Temperature	-40 °C to 65 °C
Weight	2.2 kg	Mounting	Pole mount Ø 30-52 mm

ELECTRICAL SPECIFICATIONS

MECHANICAL SPECIFICATIONS

Input Impedance	50 Ω	Input Connector	4.3-10
Polarisation	Vertical (V)	Input Connector Gender	Female
Max. Input Power	50 W	Cable Series	-
PIM, 3rd Order	-	Cable Length	-

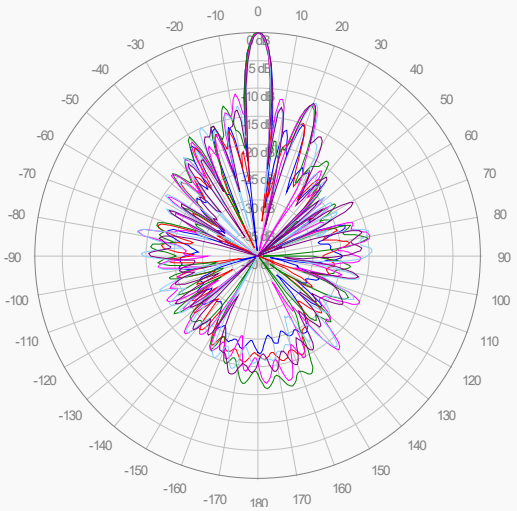
FREQUENCY RANGE	PEAK GAIN	VSWR	AZ.	EL.	F/B RATIO	INTER-PORT	XPI
698 to 803 MHz	11.4 dBi	< 2.2:1	21°	33°	> 14 dB	-	> 35 dB
803 to 890 MHz	12.3 dBi	< 1.9:1	20°	32°	> 17 dB	-	> 29 dB
890 to 960 MHz	13.3 dBi	< 2.0:1	18°	29°	> 18 dB	-	> 37 dB
1695 to 1880 MHz	18.2 dBi	< 1.9:1	11°	16°	> 24 dB	-	> 33 dB
1880 to 2200 MHz	20.5 dBi	< 2.0:1	9°	13°	> 24 dB	-	> 25 dB
2300 to 2700 MHz	20.8 dBi	< 1.9:1	8°	11°	> 24 dB	-	> 22 dB
3300 to 4000 MHz	20.5 dBi	< 2.2:1	5°	8°	> 17 dB	-	> 27 dB

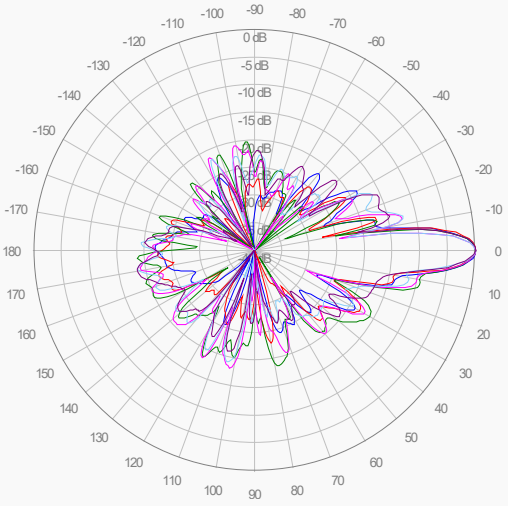
	AZIMUTH POLAR PLOT	ELEVATION POLAR PLOT
698 to 960 MHz		
1695 to 2200 MHz		
2300 to 2700 MHz		

AZIMUTH POLAR PLOT

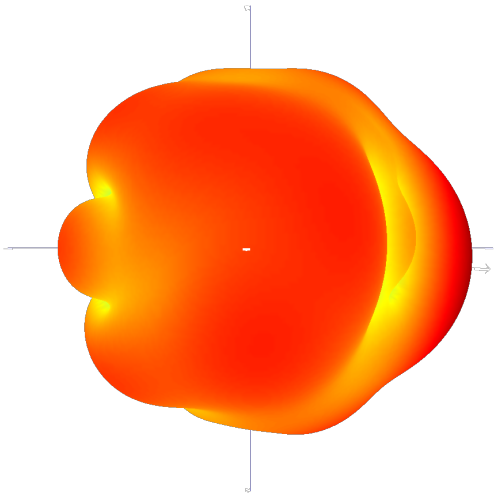
ELEVATION POLAR PLOT

3300 to
4000 MHz

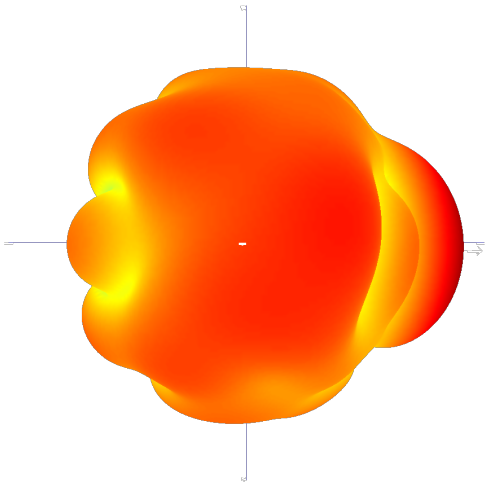




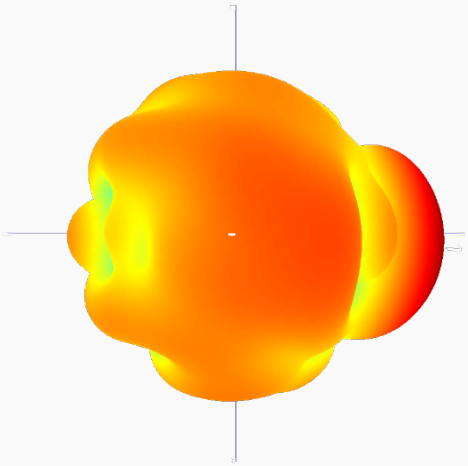
723 MHz



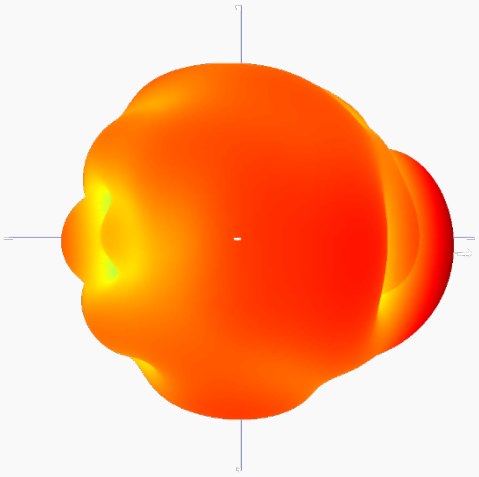
778 MHz



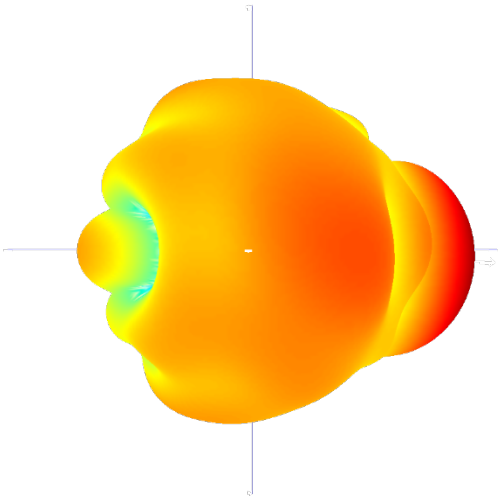
840 MHz



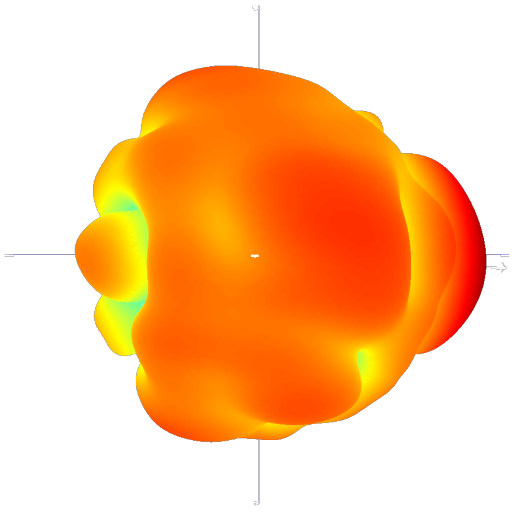
885 MHz



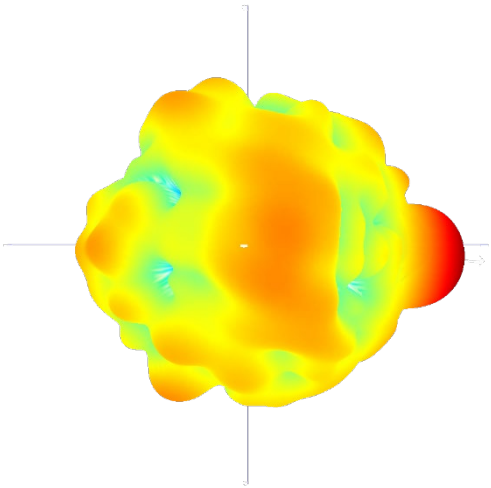
911 MHz



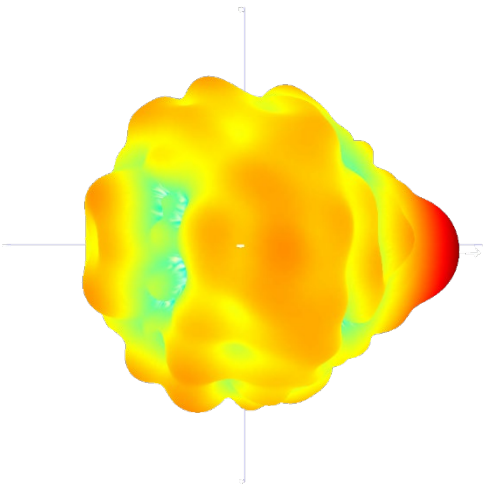
956 MHz



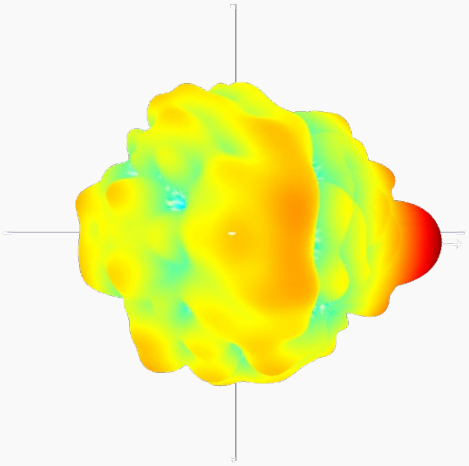
1710 MHz



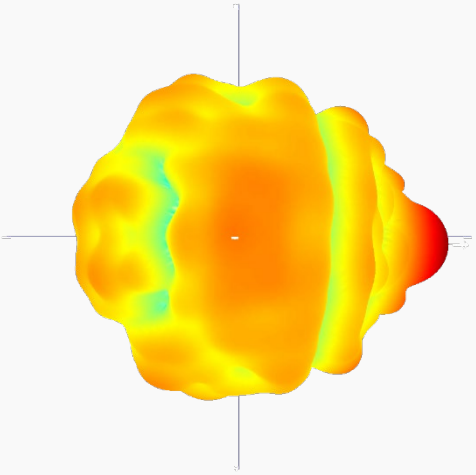
1880 MHz



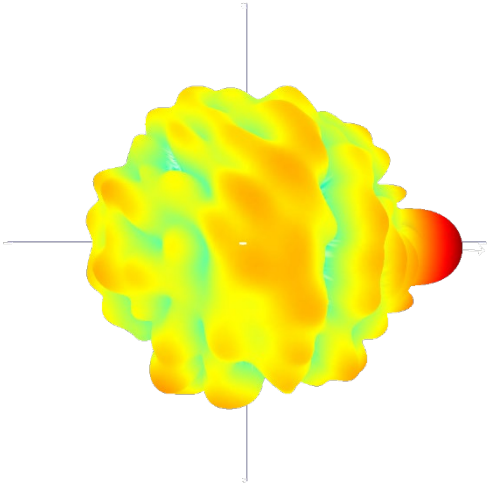
2170 MHz



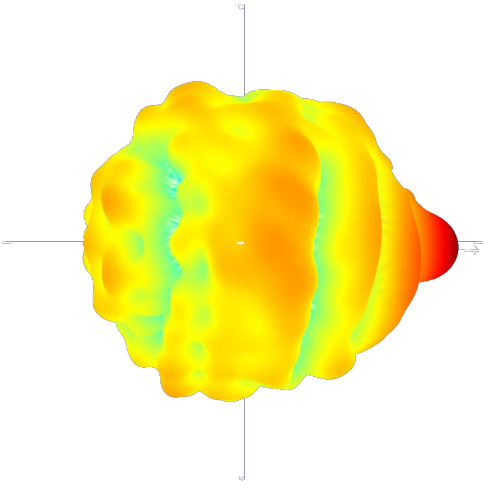
2300 MHz



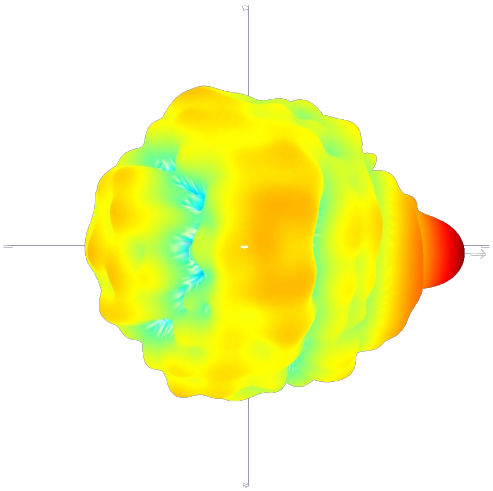
2400 MHz



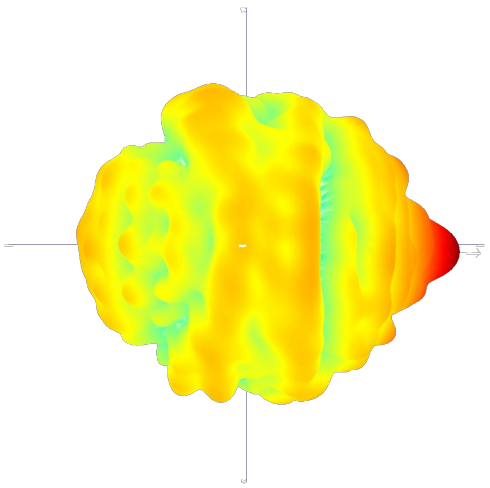
2600 MHz



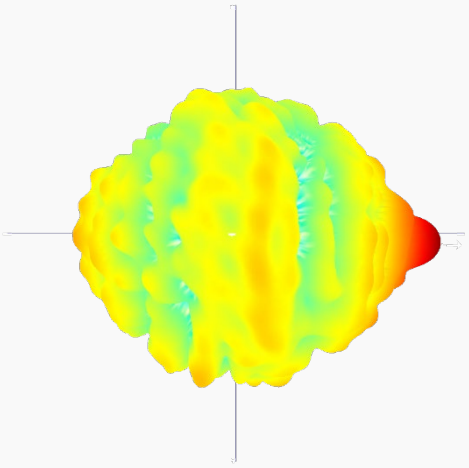
2700 MHz



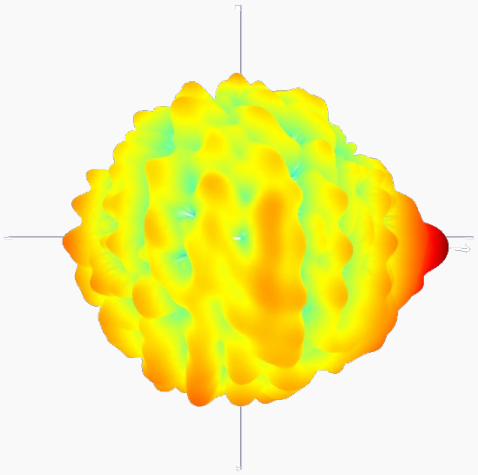
3500 MHz



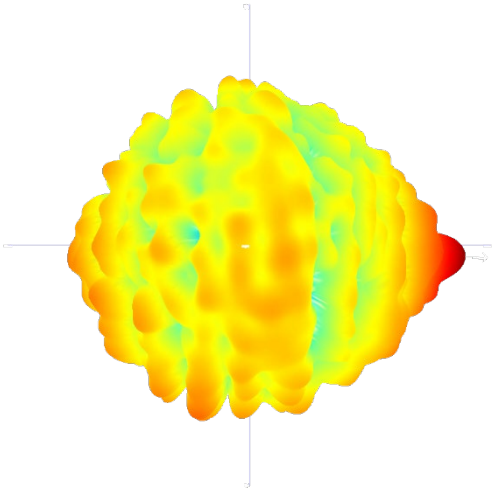
3600 MHz



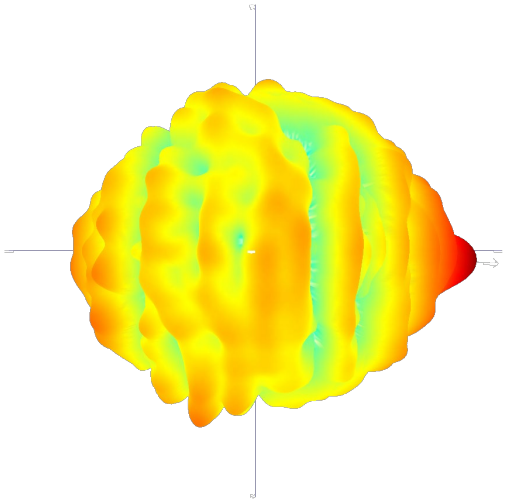
3700 MHz



3800 MHz



4000 MHz



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