

NANE13X203WTMC617M6F

5G LTE External Antenna



Description

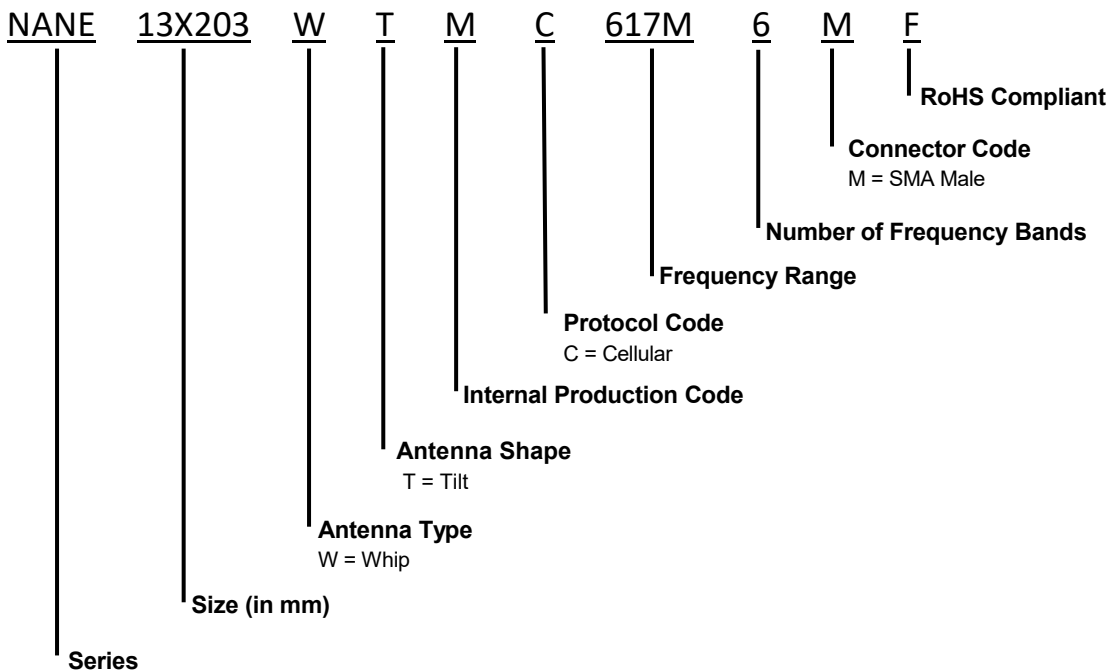
NANE13X203WTMC617M6F is a base part number for an External Whip antenna designed for LTE/Cellular applications. It operates within the frequency ranges of 617 MHz - 7125MHz and making it perfect for IoT, CBRS Private networks, Router, Gateways, Public Safety networks and C-Band applications

Features

- Supports Wide LTE Bandwidth: 617 ~ 7125 MHz
- Up to 90° flexibility
- IP67 Waterproof rating
- RoHs Complaint



Part Number Breakdown



Part Number Options

Part Number	Protocol	Connector
NANE13X203WTMC617M6MF	LTE/Cellular	SMA Male
NANE13X203WTMC617M6RF	LTE/Cellular	RP-SMA Male

The table represents assembled part numbers available on www.niccomp.com. For options not listed above please contact NIC

Performance Passives By Design

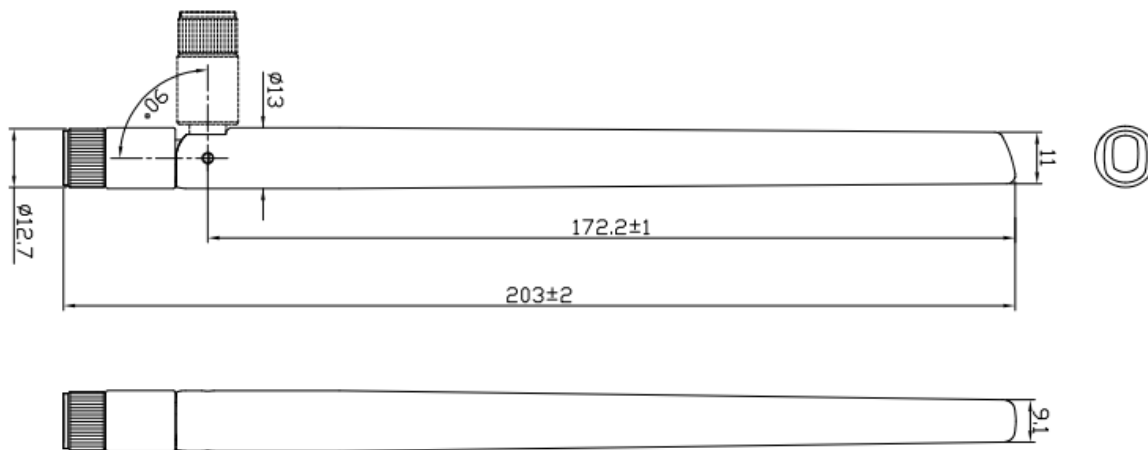
NIC Components Corp.
100 Baylis Road. Melville, NY 11747

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www.niccomp.com

Specifications

Electrical						
Frequency Range (MHz)	617 ~ 960	1710~2690	3300~4200	4400~5000	5150~5850	5925~7125
Peak Gain (dBi)	1.5	2.8	2.8	2.4	2.6	3.1
Average Gain (dBi)	-4.2	-3.6	-3.3	-3.6	-3.2	-3.6
Efficiency (%)	38	44	47	43	48	43
VSWR	<=3.5					
Polarization	Linear					
Radiation	Omni directional					
Max Power	1 W					
Electrical Type	Dipole					
Impedance	50Ω					
Environmental						
Operating Temperature -	-30°C~+70°C					
Weight	23 g					
Antenna Color	Black					
Ingress Protection	IP67					
RoHS Compliant	Yes					

Dimensions



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Antenna Orientation

This antenna is characterized in 90 degrees bent antenna orientations as shown in Figure 3. The antenna orientation characterizes use of an antenna attached to enclosure-mounted connector which is connected by cable to the VNA. The charts on the following pages represent data taken with the antenna hanging free without ground plane.



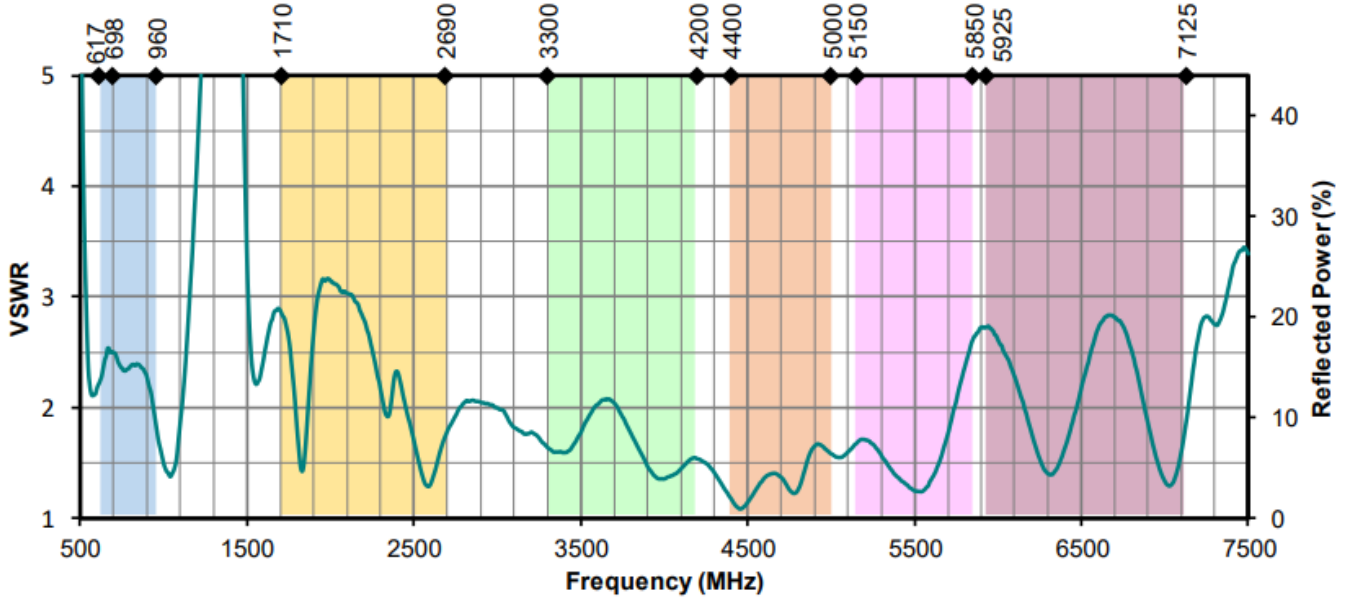
Antenna Test Orientation

NANE13X203WTMC617M6F

5G LTE External Antenna

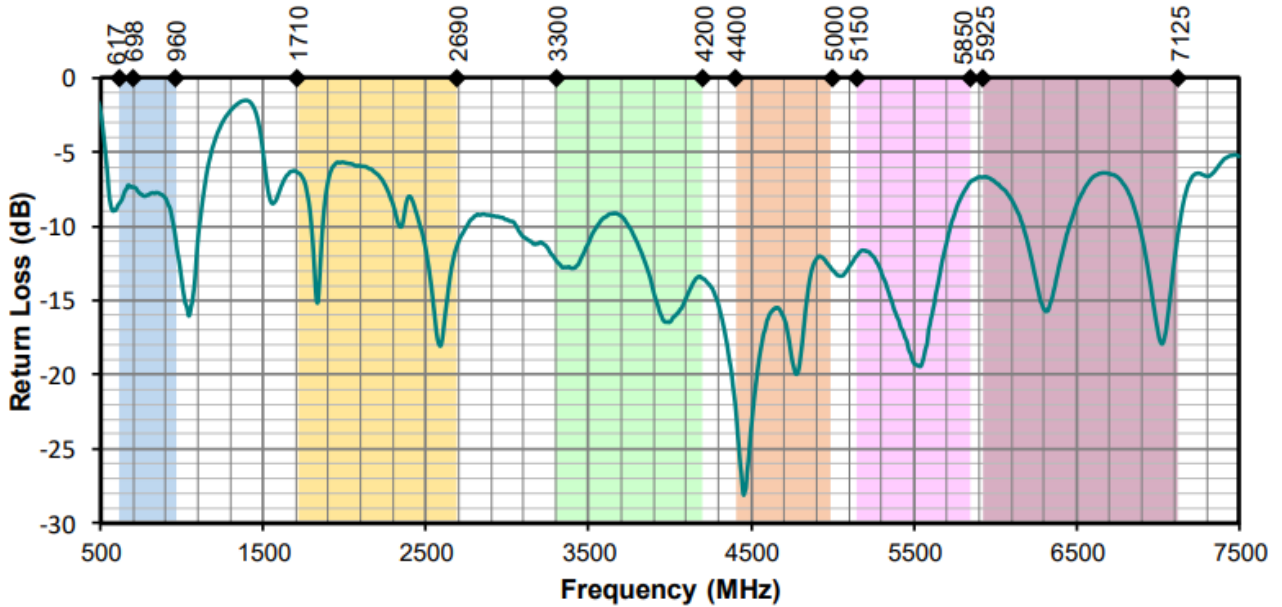


VSWR



Antenna VSWR, free space no ground plane

Return Loss



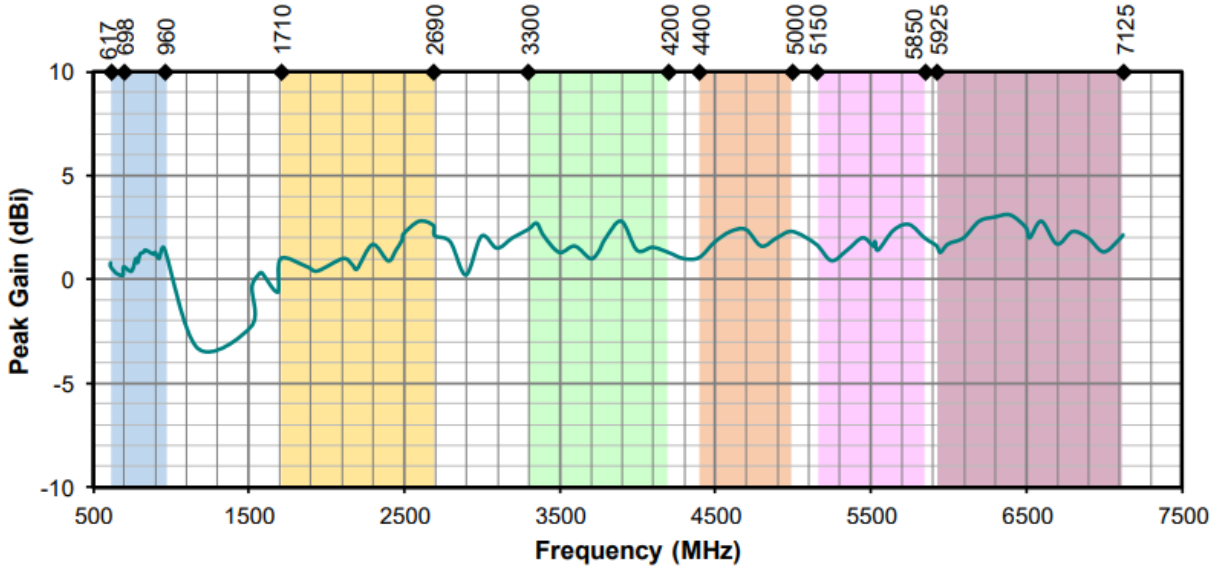
Antenna Return Loss, free space no ground plane

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5G LTE External Antenna

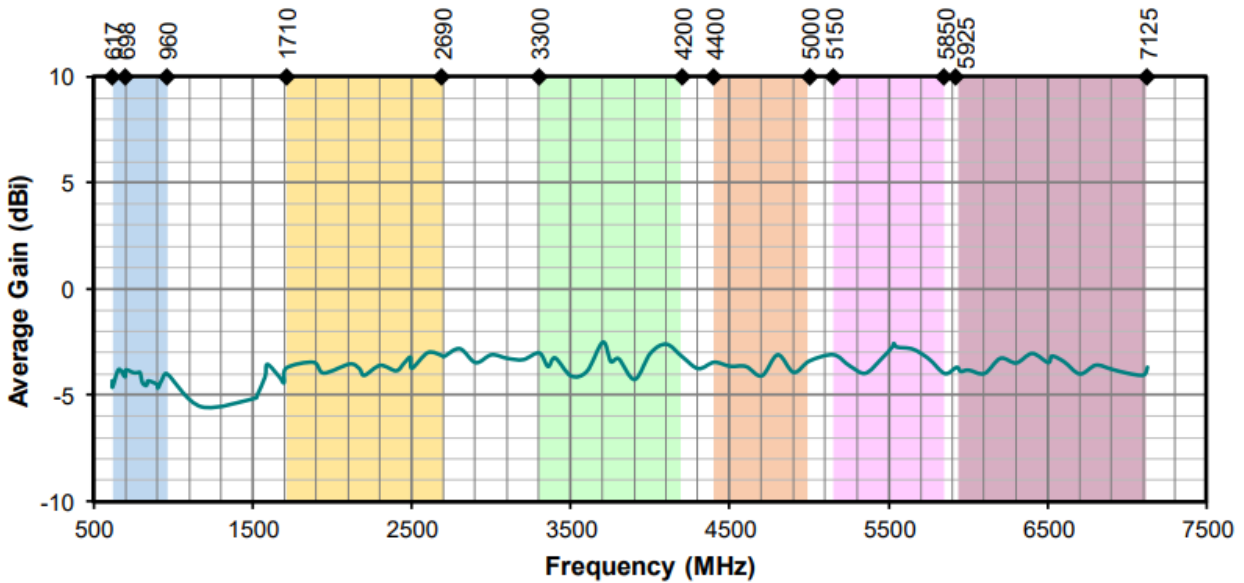


Peak Gain



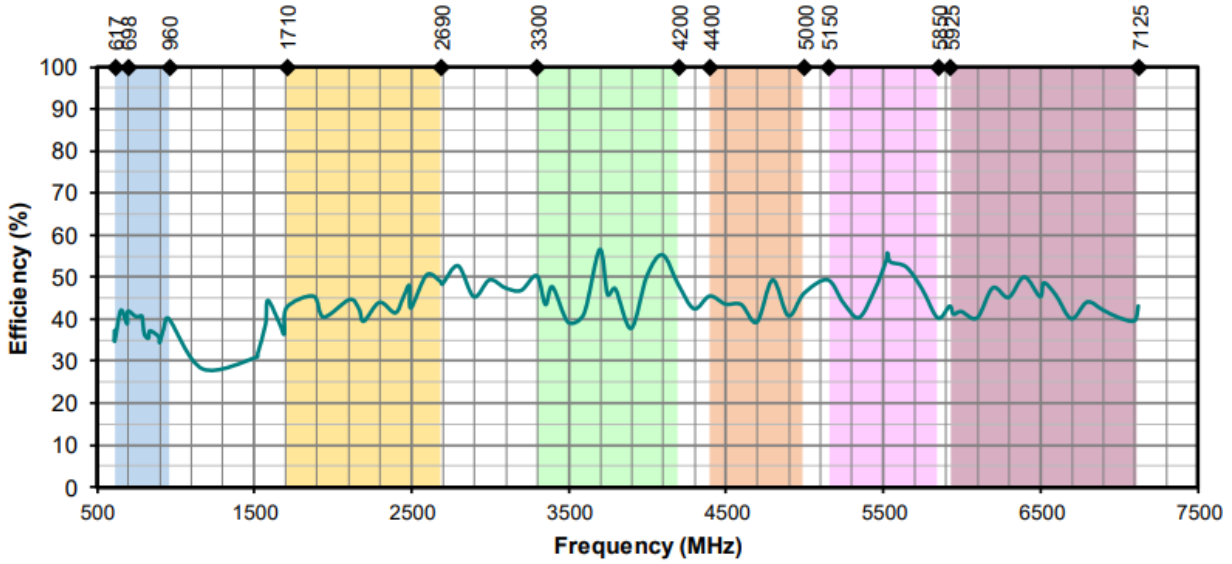
Antenna Peak Gain, free space no ground plane

Average Gain



Antenna Average Gain, free space no ground plane

Radiation Efficiency



Antenna Efficiency, free space no ground plane

Radiation Patterns



XZ-Plane Gain



YZ-Plane Gain



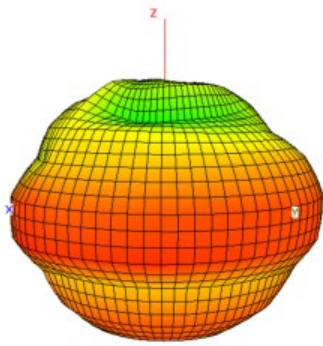
XY-Plane Gain

NANE13X203WTMC617M6F

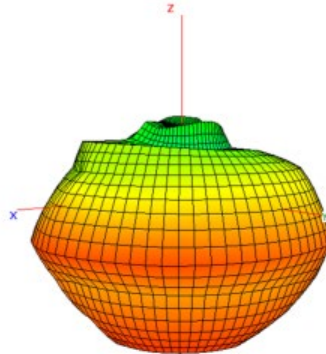
5G LTE External Antenna



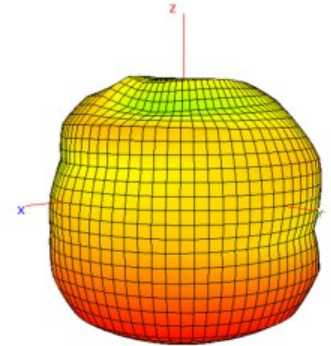
617 MHz ~ 960 MHz (778 MHz)



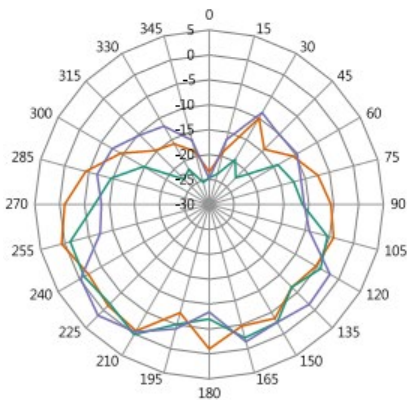
617 MHz



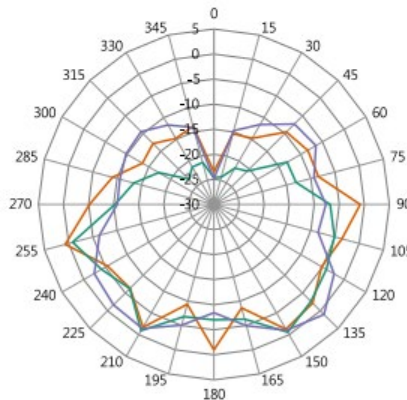
778 MHz



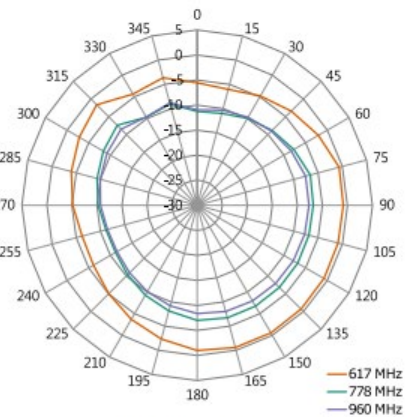
960 MHz



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain

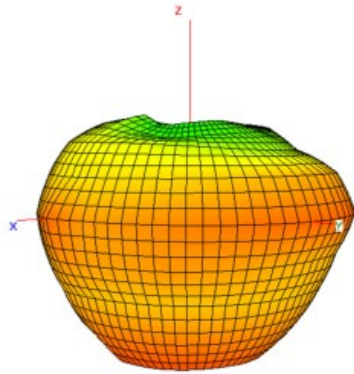
Antenna Radiation Patterns, free space no ground plane

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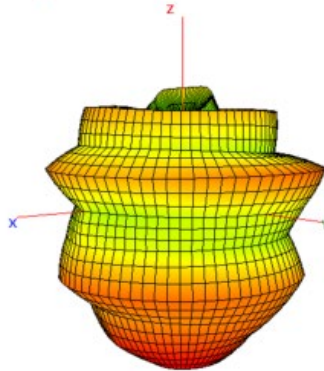
5G LTE External Antenna



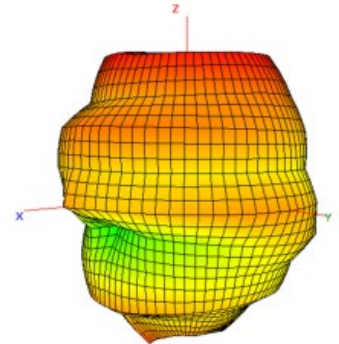
1710 MHz ~ 5000 MHz (3355 MHz)



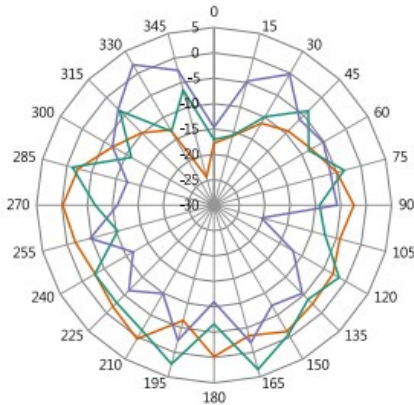
1710 MHz



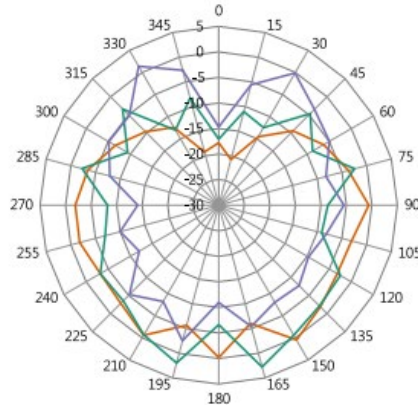
3355 MHz



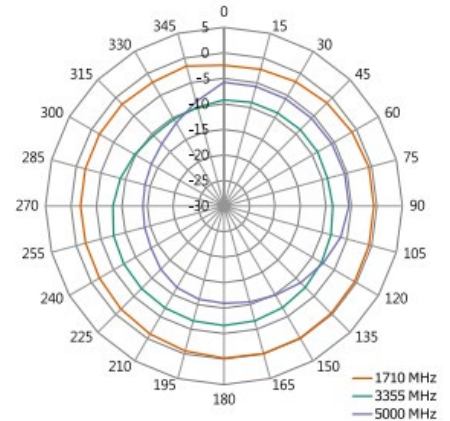
5000 MHz



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain

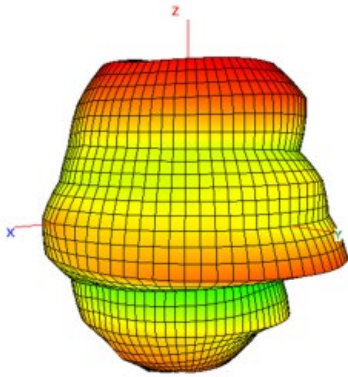
— 1710 MHz
— 3355 MHz
— 5000 MHz

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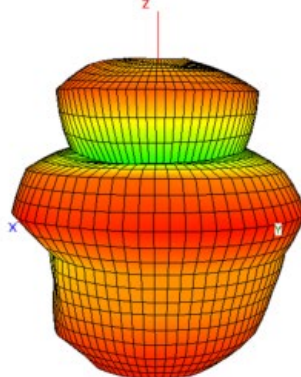
5G LTE External Antenna



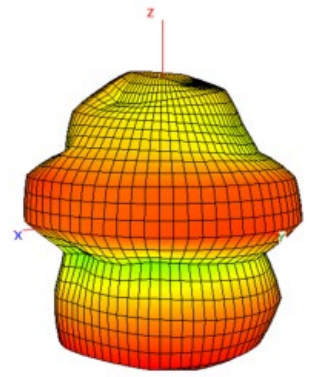
5150 MHz ~ 5850 MHz (5550 MHz)



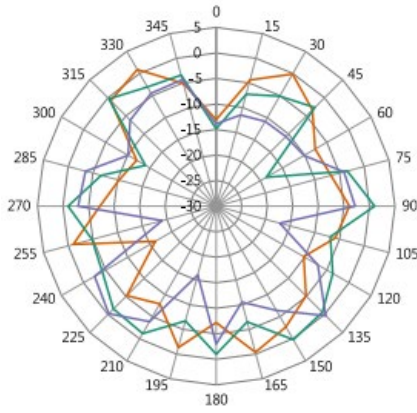
5150MHz



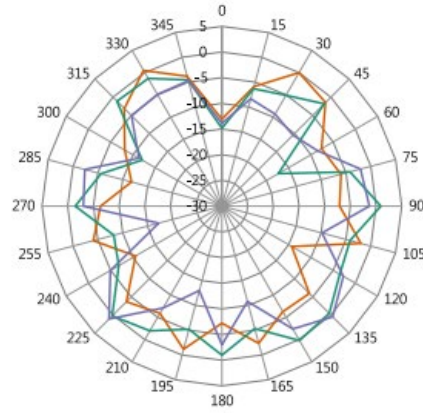
5500 MHz



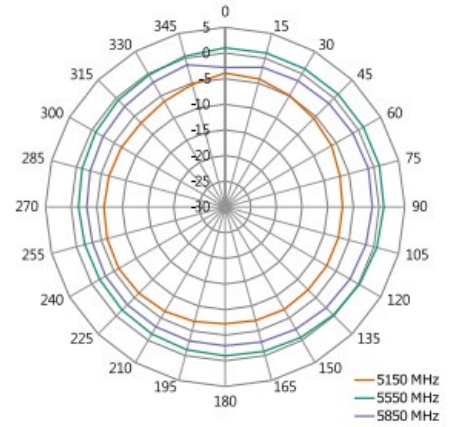
5850 MHz



XZ-Plane Gain



YZ-Plane Gain



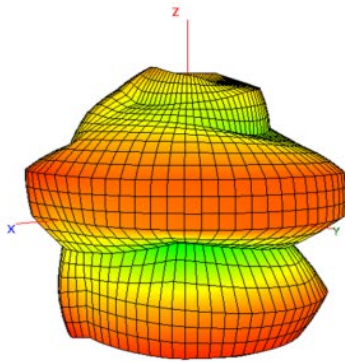
XY-Plane Gain

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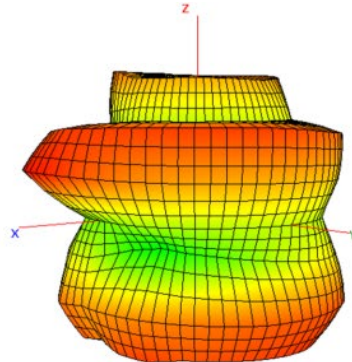
5G LTE External Antenna



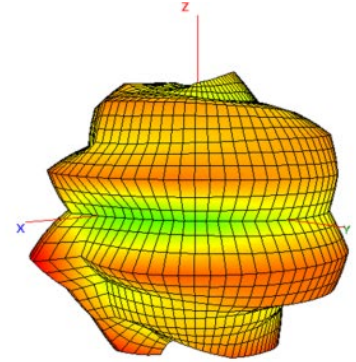
5925 MHz ~ 7125 MHz (6525 MHz)



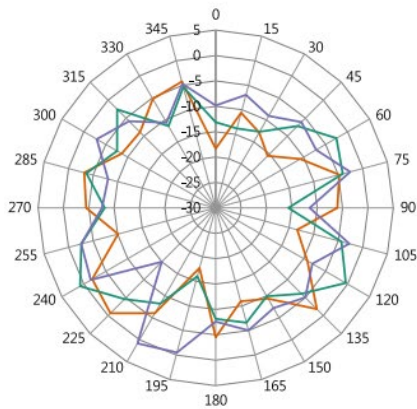
5925 MHz



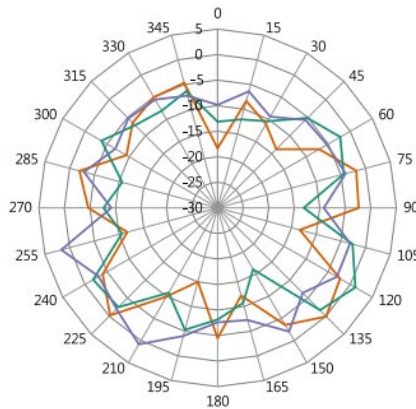
6525 MHz



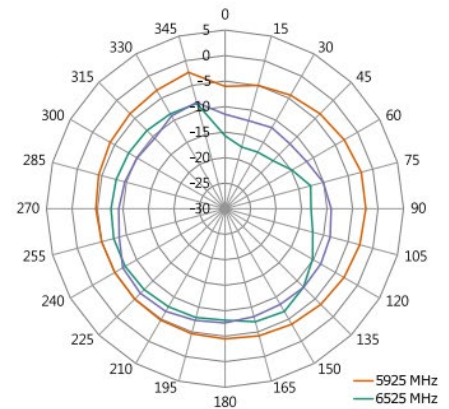
7125 MHz



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain