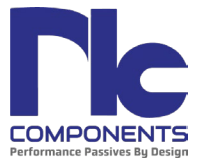


NANE27X188WTMC450M7F

5G LTE External Antenna



Part Number Options

Part Number	Protocol	Connector	Antenna Color
NANE27X188WTMC450M7MWF	LTE/Cellular	SMA Male	White
NANE27X188WTMC450M7MF	LTE/Cellular	SMA Male	Black
NANE27X188WTMC450M7RF	LTE/Cellular	RP-SMA Male	Black

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

Specifications

Electrical

Frequency Range (MHz)	450	617 ~ 960	1710~2690	3300~4200	4400~5000	5150~5850	5925~7125
Peak Gain (dBi)	0.7	2.5	4.0	3.2	2.0	3.8	4.1
Average Gain (dBi)	-4.4	-3.7	-2.8	-2.0	-3.1	-2.5	-2.5
Efficiency (%)	36	43	53	63	49	57	56
VSWR	1.9	2.1	1.8	1.9	2.5	1.6	1.7
Polarization	Linear						
Radiation	Omni directional						
Max Power	1 W						
Electrical Type	Dipole						
Impedance	50Ω						

Environmental

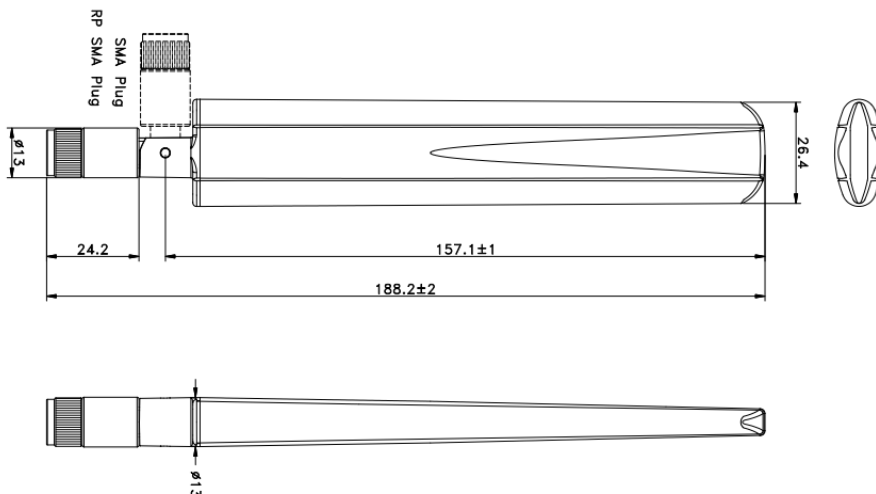
Operating Temperature	-40°C~+85°C
Weight	25.5 g
Ingress Protection	IP67
RoHS Compliant	Yes

NANE27X188WTMC450M7F

5G LTE External Antenna



Dimensions



Antenna Orientation

This antenna is characterized in two antenna orientations as shown below. Although the antenna is a dipole not requiring a ground plane for function, characterization with an adjacent ground plane (120 mm x 120 mm) provides insight into antenna performance when attached directly to a printed circuit board mounted connector. The two orientations represent the most common end-product use cases.



Straight, hanging free without ground plane



On edge of ground plane, bent 90 degrees

NANE27X188WTMC450M7F

5G LTE External Antenna

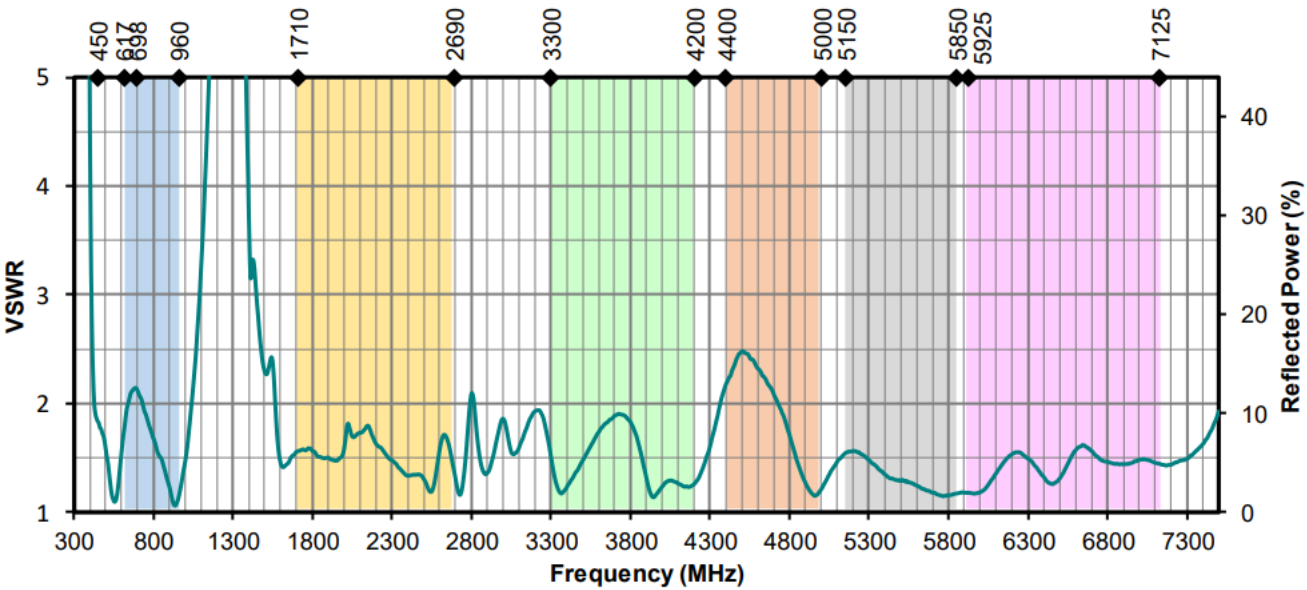


Straight, without Ground Plane

The charts on the following pages represent data taken with the antenna oriented straight, hanging free



VSWR

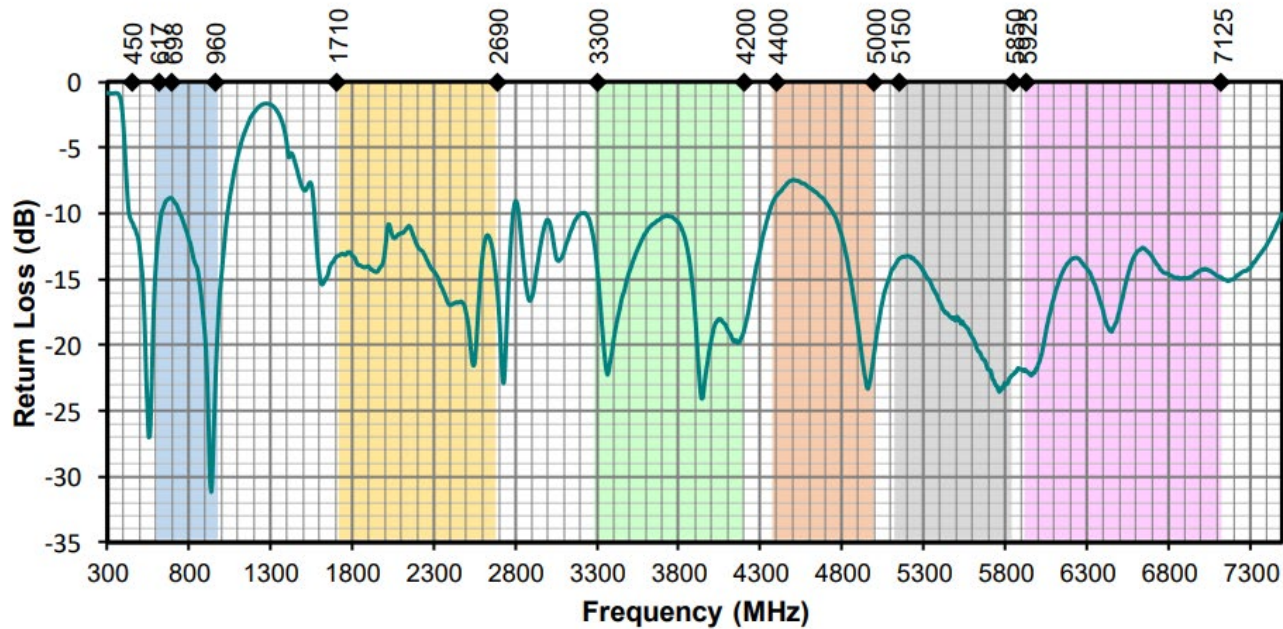


NANE27X188WTMC450M7F

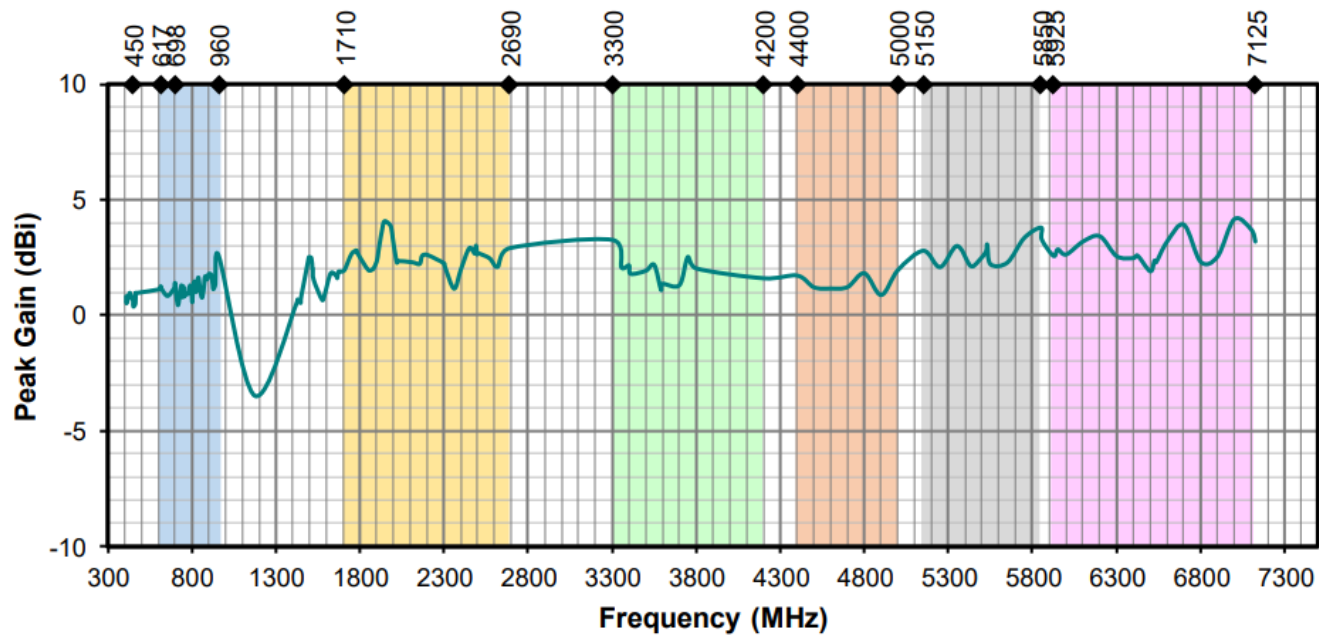
5G LTE External Antenna



Return Loss

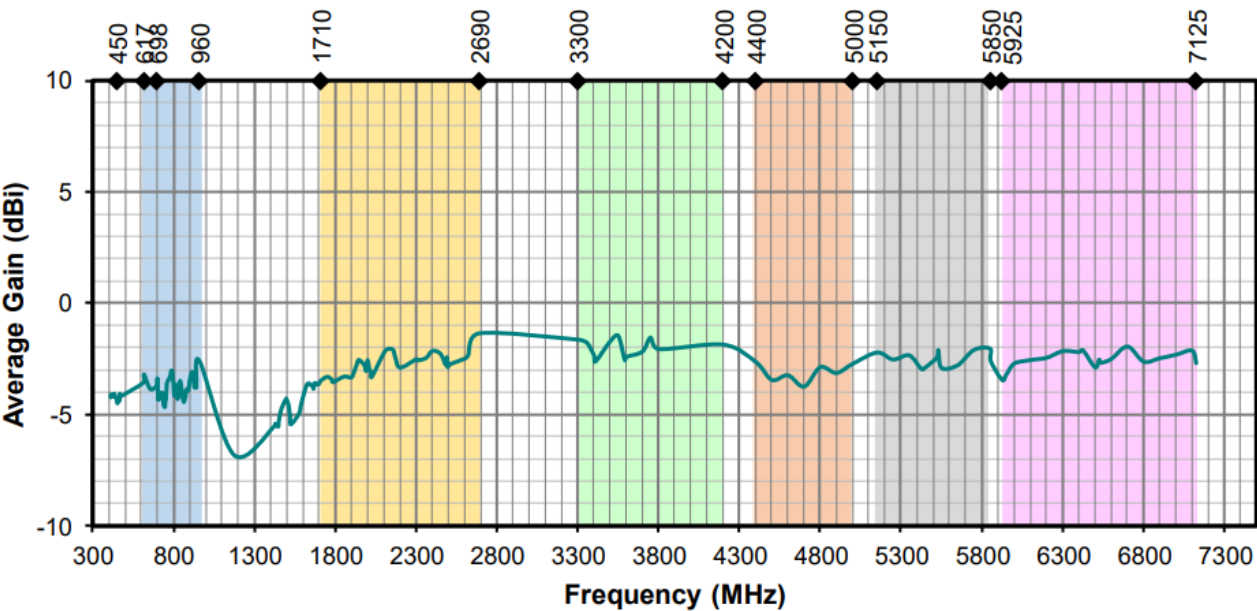


Peak Gain

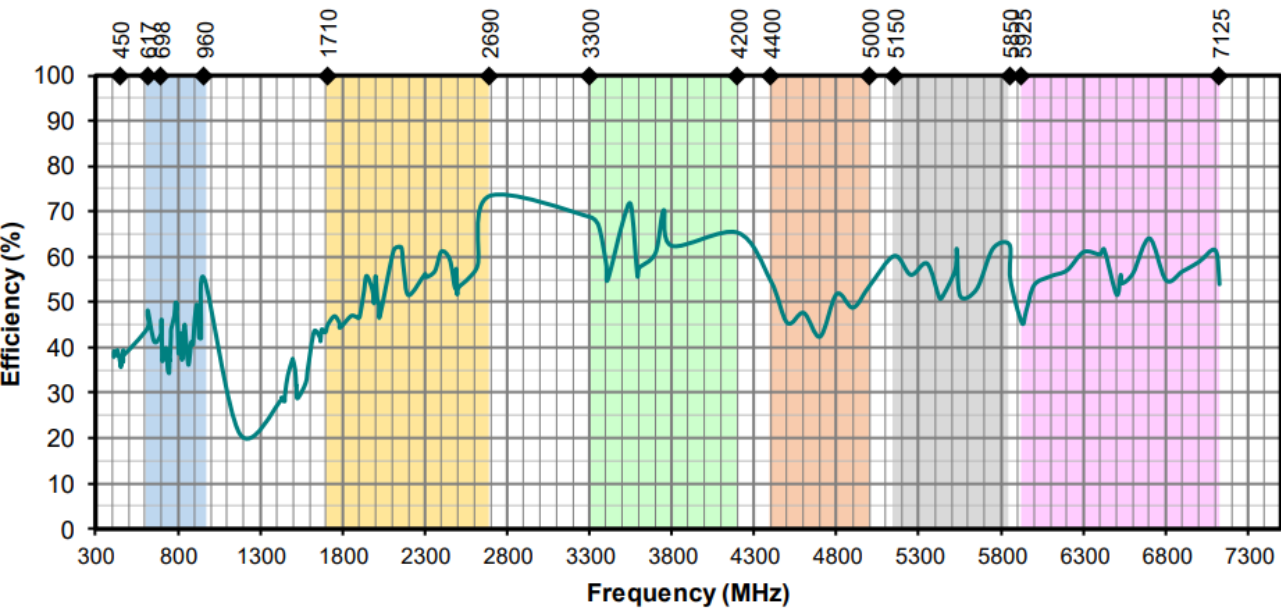




Average Gain



Radiation Efficiency

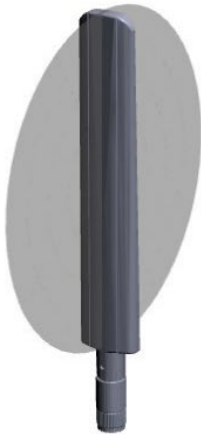


NANE27X188WTMC450M7F

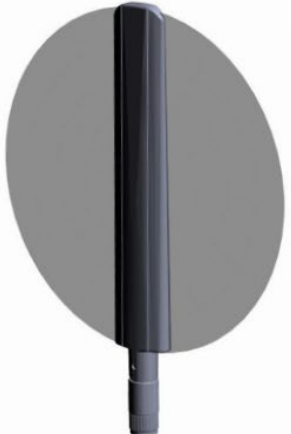
5G LTE External Antenna



Radiation Patterns



XZ-Plane Gain

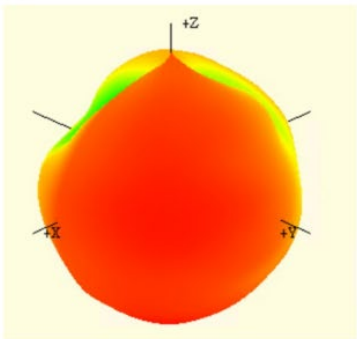


YZ-Plane Gain

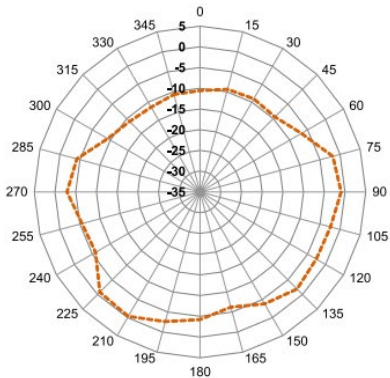


XY-Plane Gain

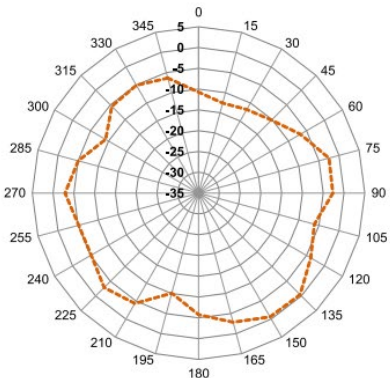
450MHz



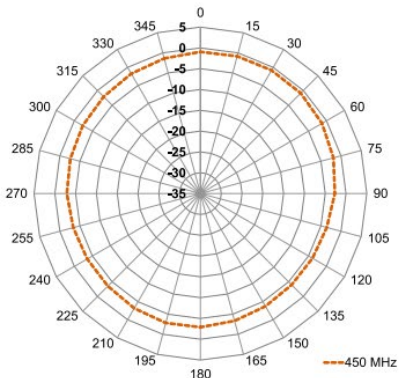
450 MHz



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain

Performance Passives By Design

NIC Components Corp.
One Huntington Quadrangle, Suite 1C10, Melville, NY 11747

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www.niccomp.com

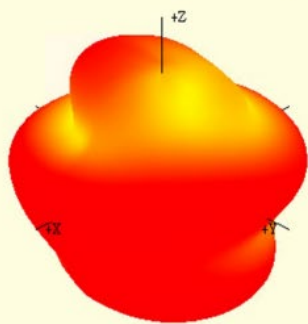
Last Updated 11/24/2025. Specification subject to change without notice. Please check web site or contact NIC for latest information

NANE27X188WTMC450M7F

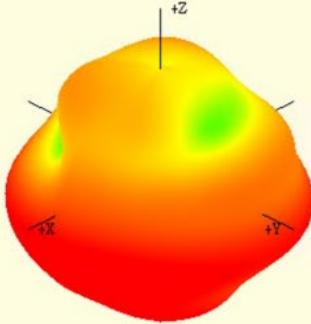
5G LTE External Antenna



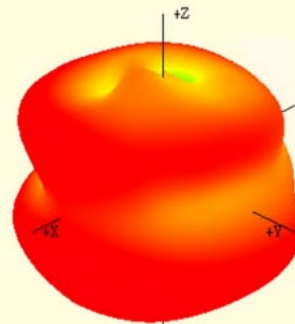
617 MHz ~ 960 MHz (778 MHz)



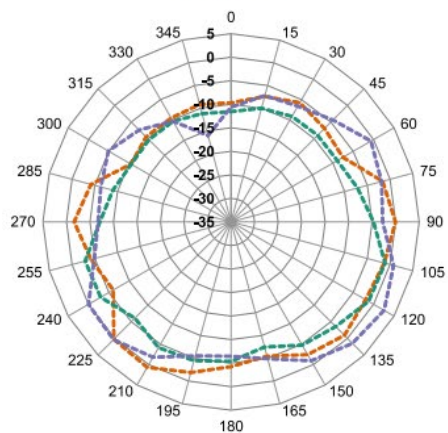
617 MHz



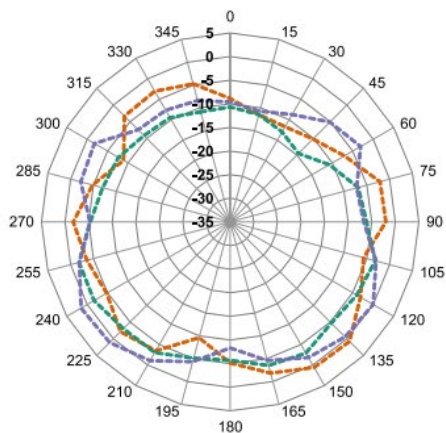
778 MHz



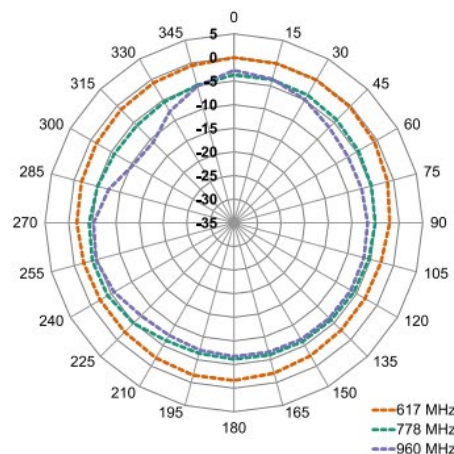
960 MHz



XZ-Plane Gain



YZ-Plane Gain



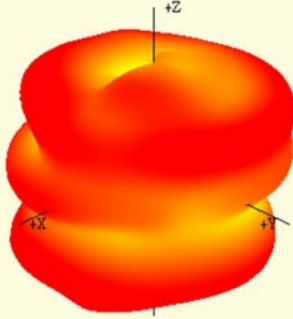
XY-Plane Gain

NANE27X188WTMC450M7F

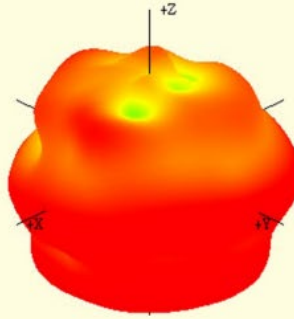
5G LTE External Antenna



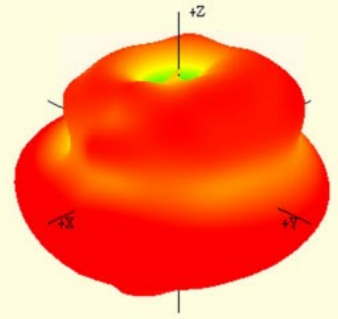
1710 MHz ~ 2690 MHz (2200 MHz)



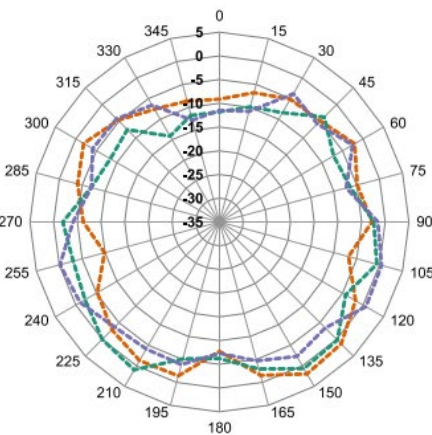
1710 MHz



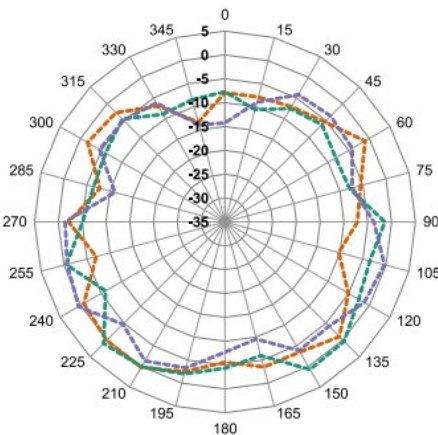
2200 MHz



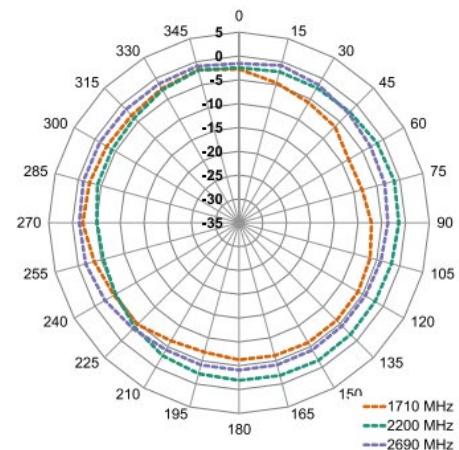
2690 MHz



XZ-Plane Gain



YZ-Plane Gain



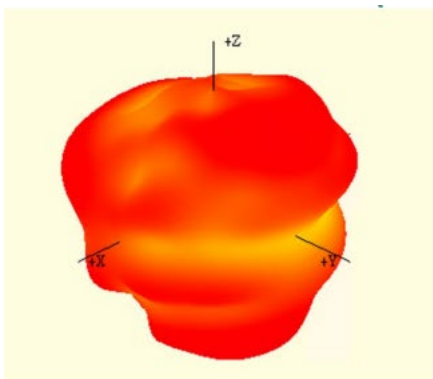
XY-Plane Gain

NANE27X188WTMC450M7F

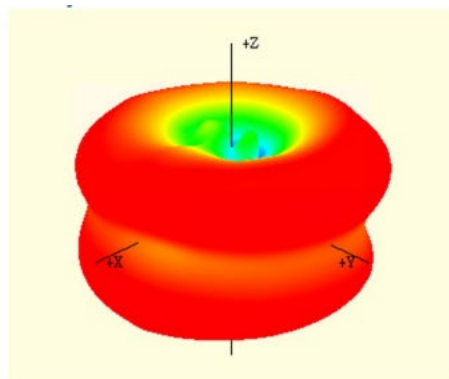
5G LTE External Antenna



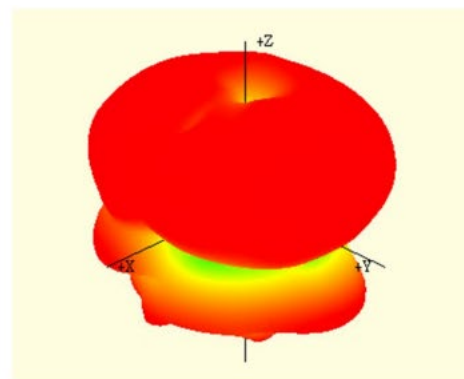
3300 MHz ~ 5000 MHz (4200 MHz)



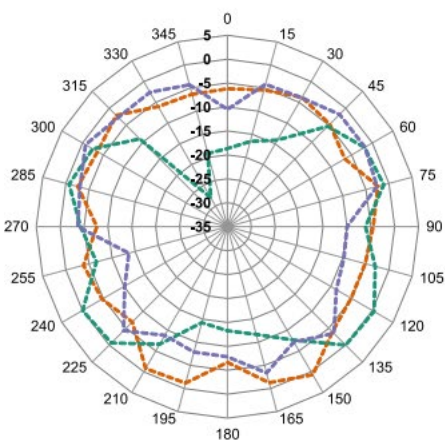
3300 MHz



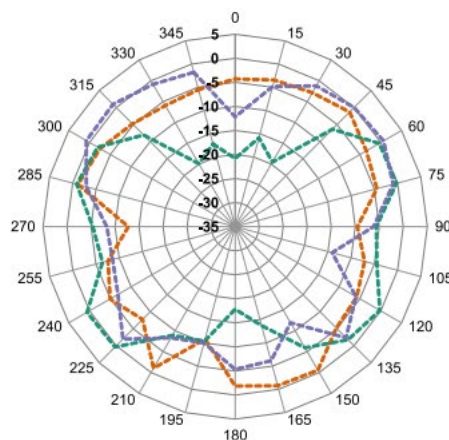
4200 MHz



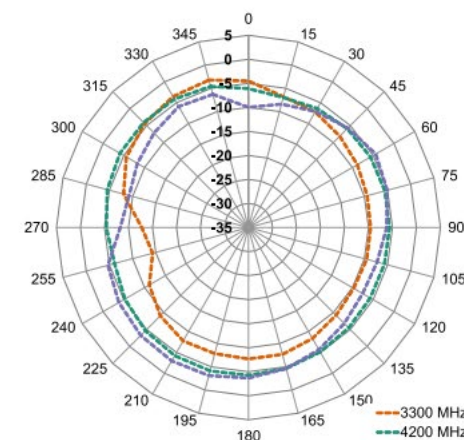
5000 MHz



XZ-Plane Gain



YZ-Plane Gain



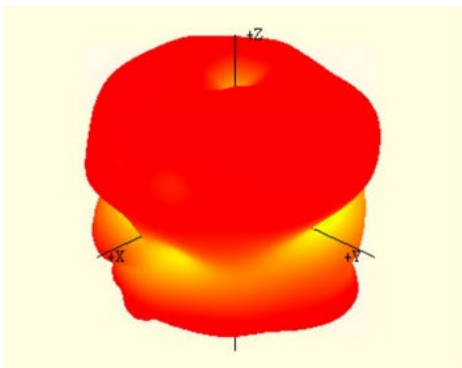
XY-Plane Gain

NANE27X188WTMC450M7F

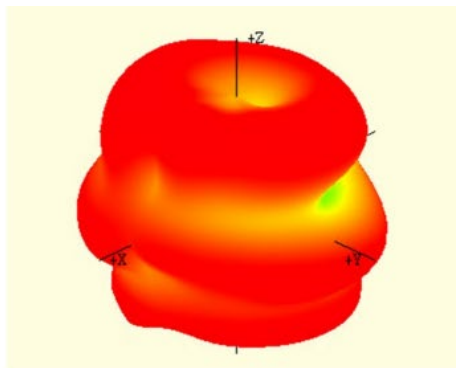
5G LTE External Antenna



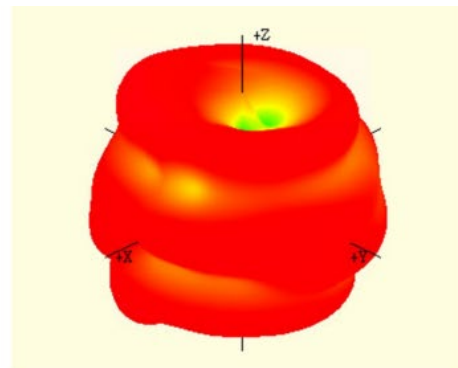
5150 MHz ~ 5850 MHz (5550 MHz)



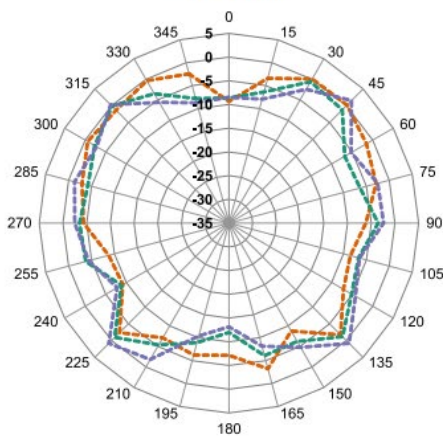
5150 MHz



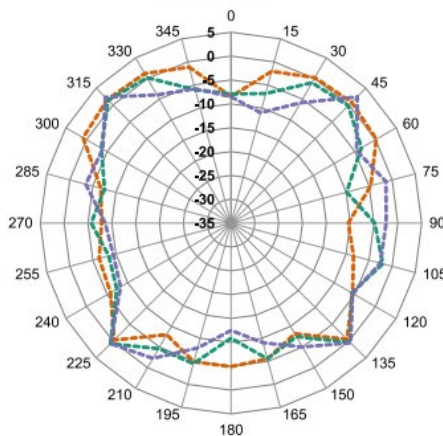
5550 MHz



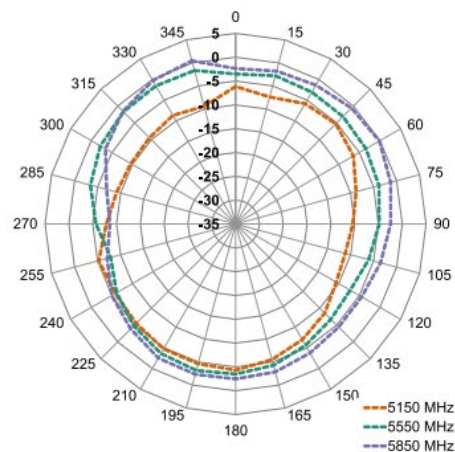
5850 MHz



XZ-Plane Gain



YZ-Plane Gain



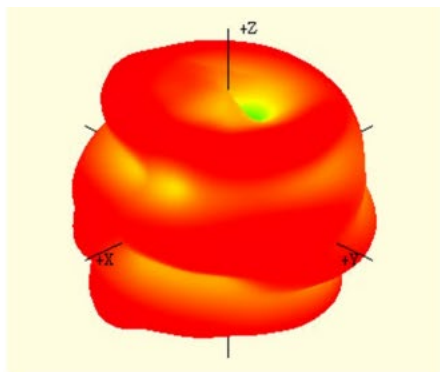
XY-Plane Gain

NANE27X188WTMC450M7F

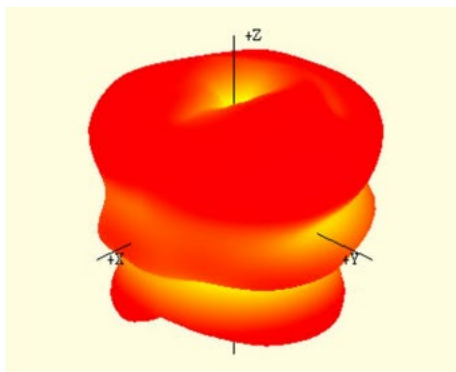
5G LTE External Antenna



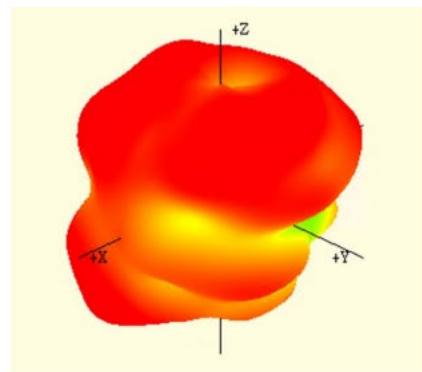
5925 MHz ~ 7125 MHz (6525 MHz)



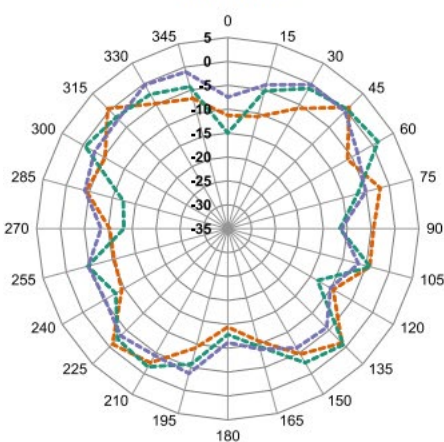
5925 MHz



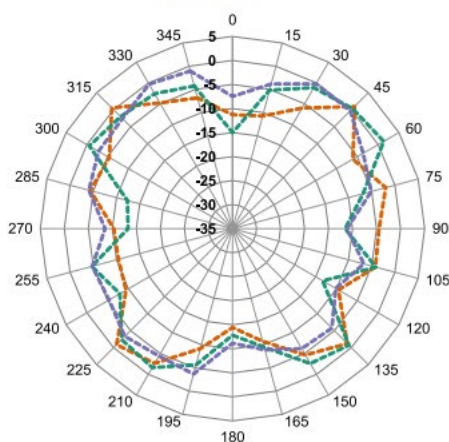
6525 MHz



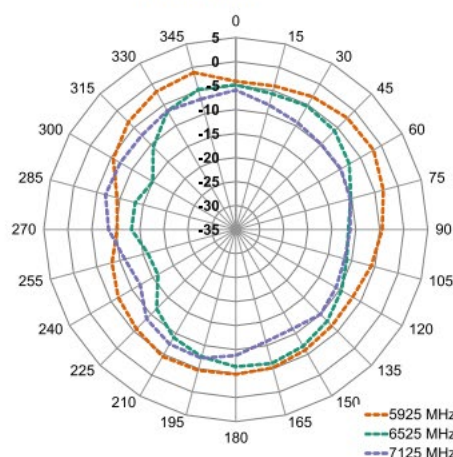
7125 MHz



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain

NANE27X188WTMC450M7F

5G LTE External Antenna

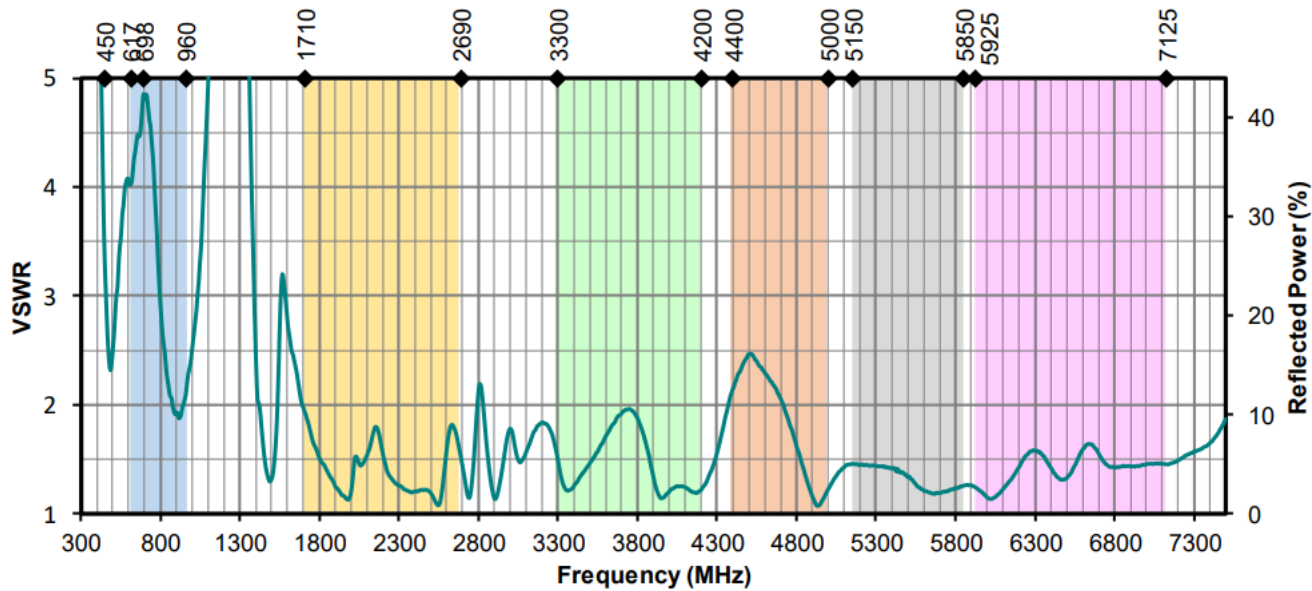


Straight, without Ground Plane

The charts on the following pages represent data taken with the antenna oriented at the edge of the ground plane, bent 90 degrees (Edge-Bent)



VSWR

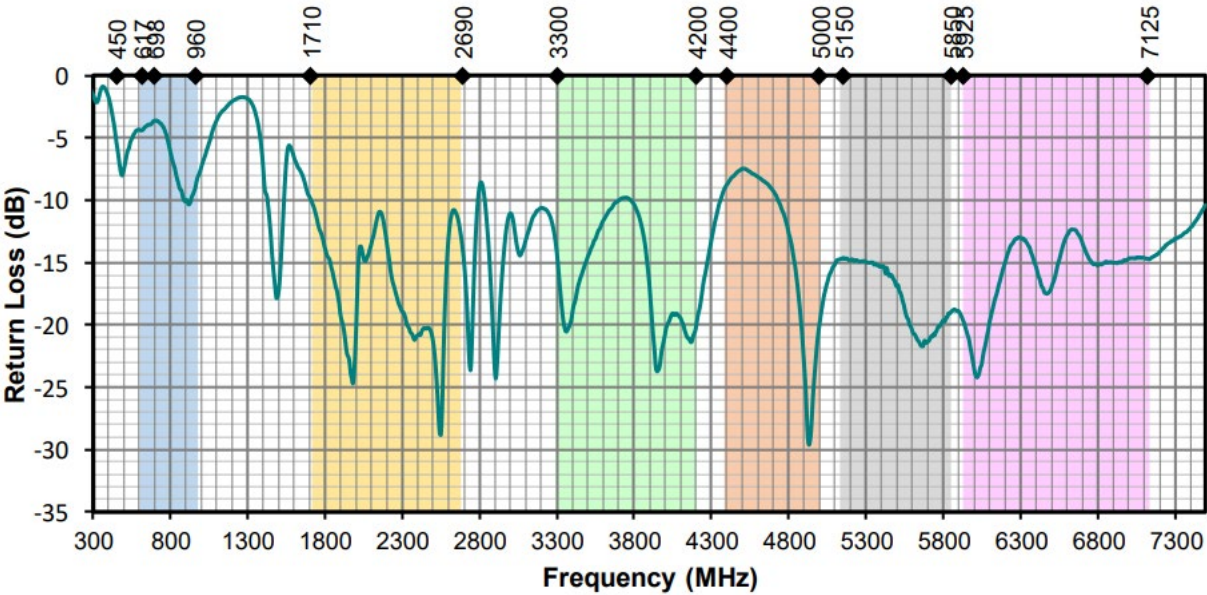


NANE27X188WTMC450M7F

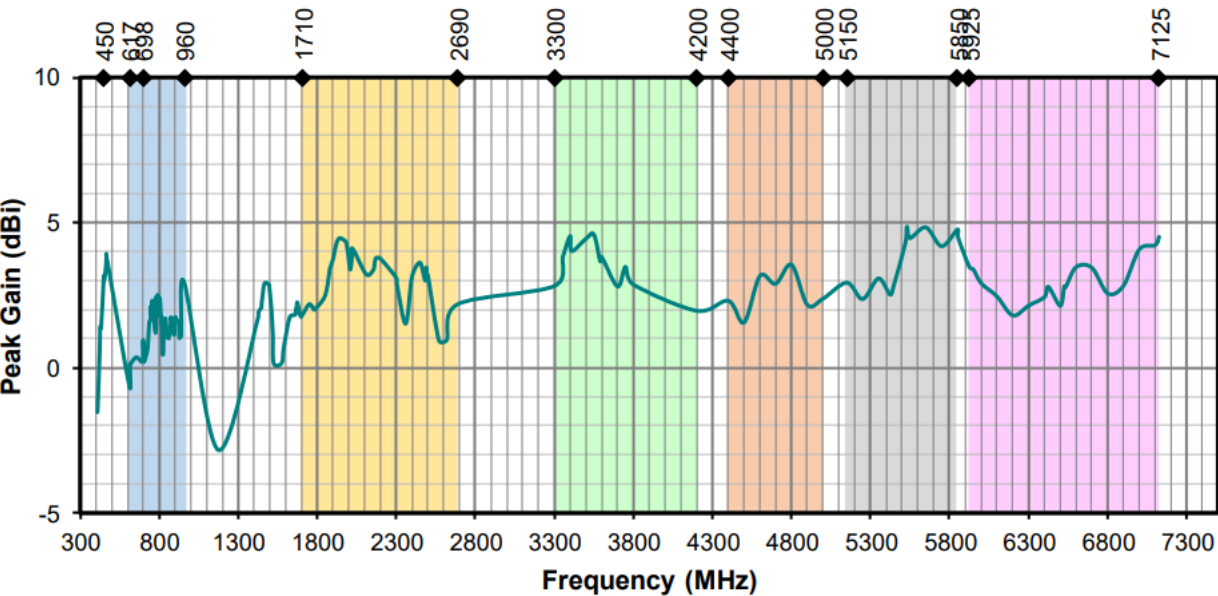
5G LTE External Antenna



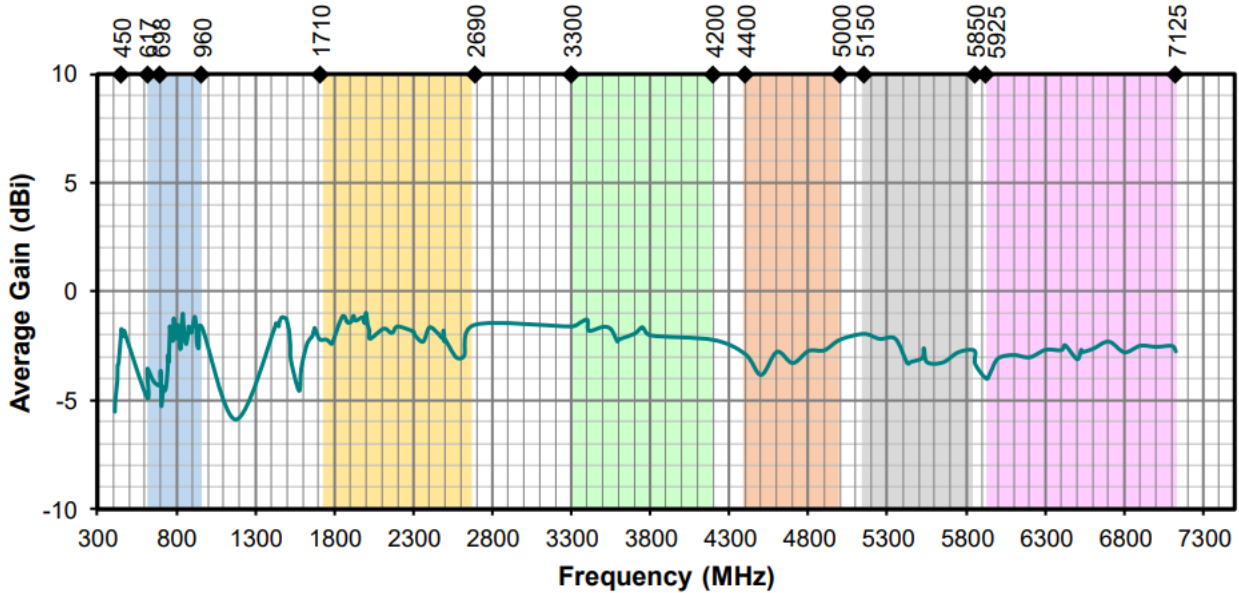
Return Loss



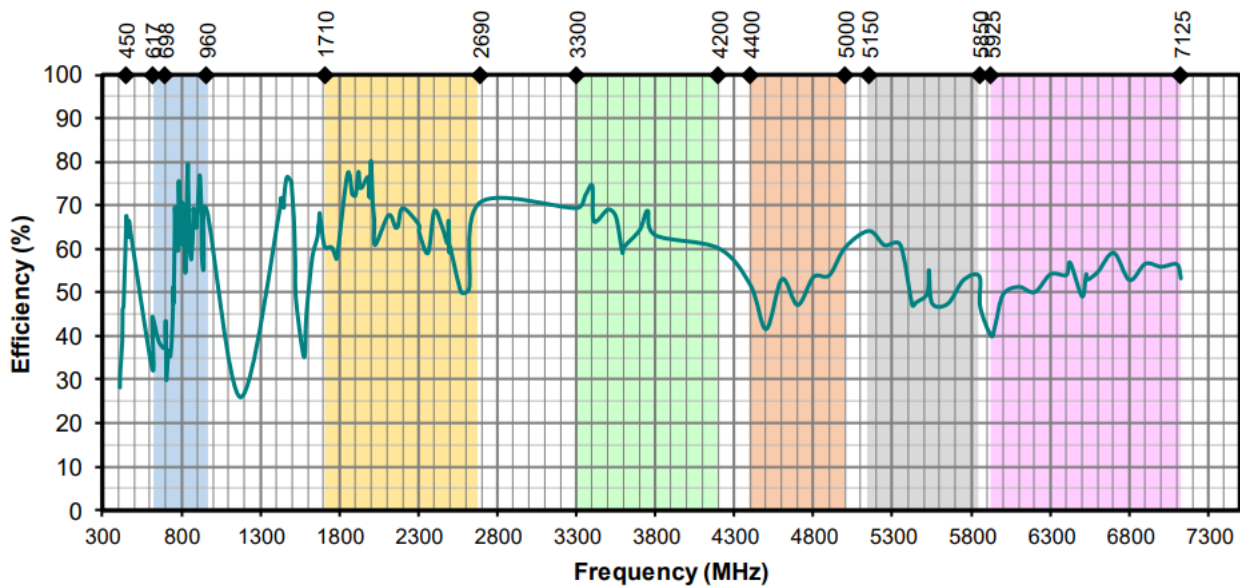
Peak Gain



Average Gain



Radiation Efficiency

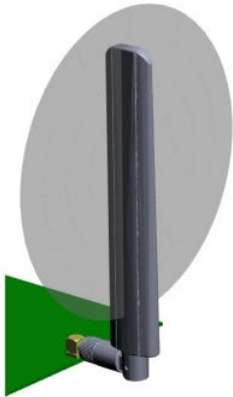


NANE27X188WTMC450M7F

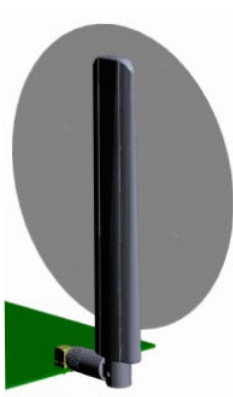
5G LTE External Antenna



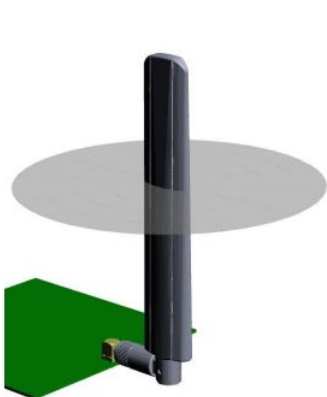
Radiation Patterns



XZ-Plane Gain

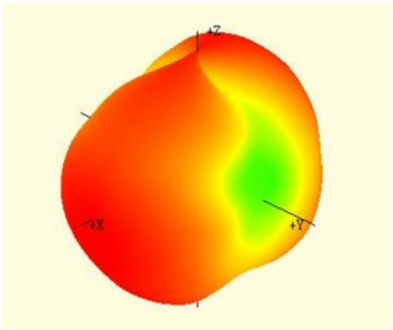


YZ-Plane Gain

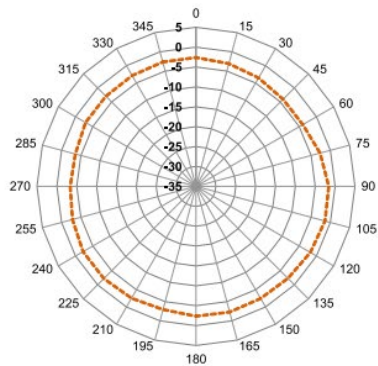


XY-Plane Gain

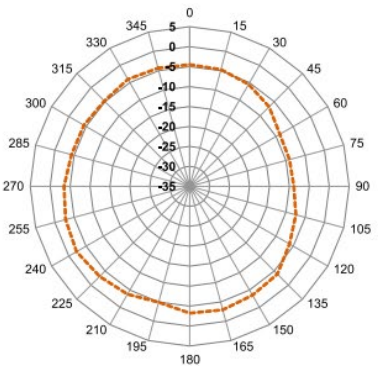
450MHz



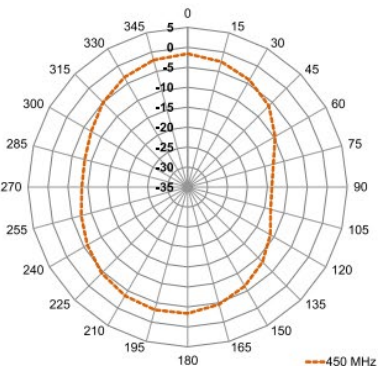
450 MHz



XZ-Plane Gain



YZ-Plane Gain



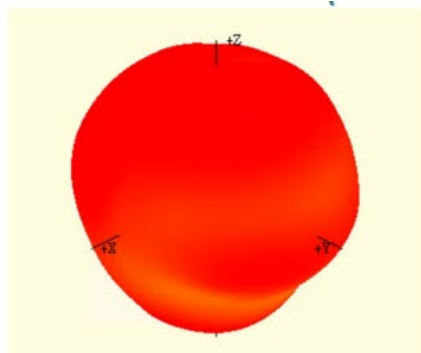
XY-Plane Gain

NANE27X188WTMC450M7F

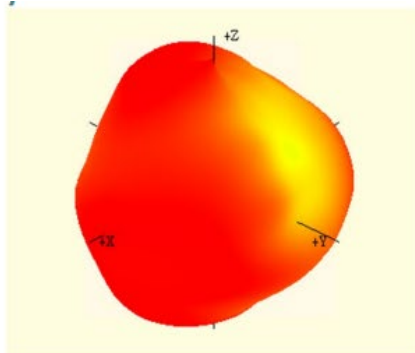
5G LTE External Antenna



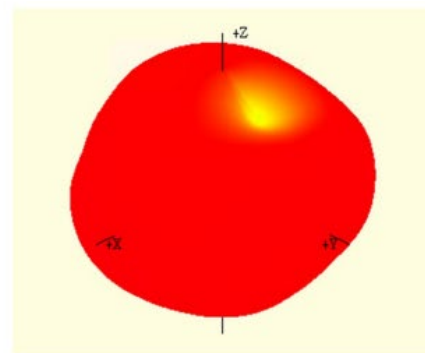
617 MHz ~ 960 MHz (778 MHz)



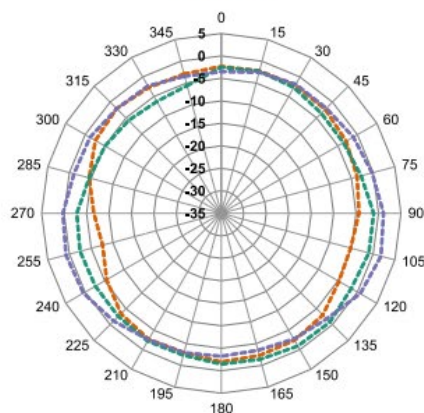
617 MHz



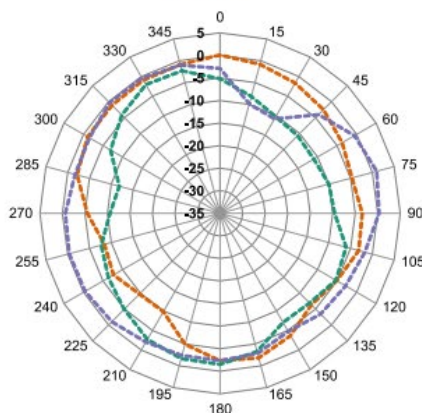
778 MHz



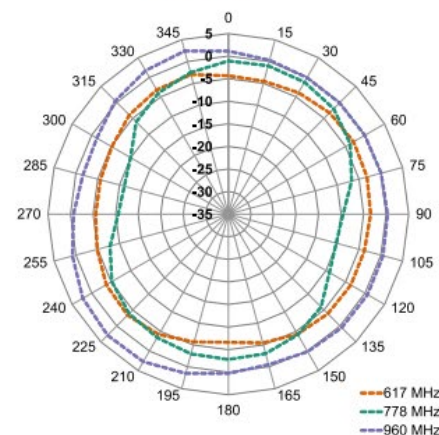
960 MHz



XZ-Plane Gain



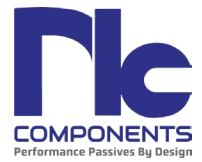
YZ-Plane Gain



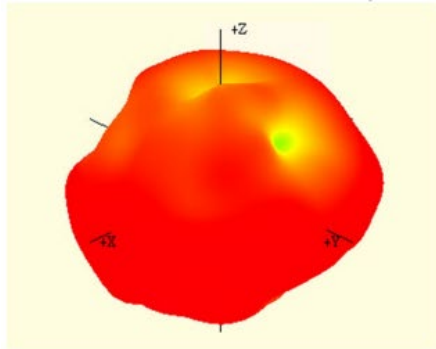
XY-Plane Gain

NANE27X188WTMC450M7F

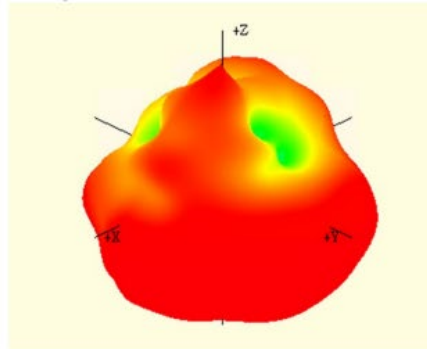
5G LTE External Antenna



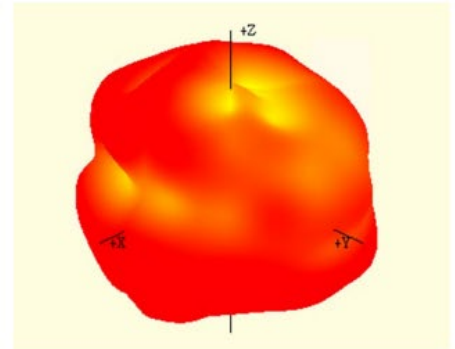
1710 MHz ~ 2690 MHz (2200 MHz)



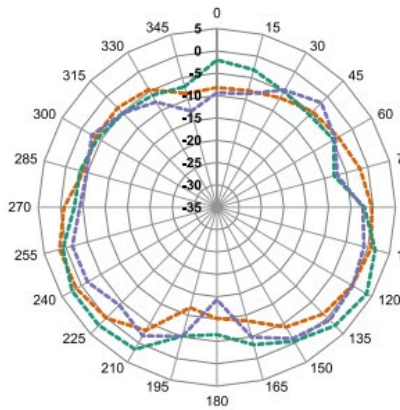
1710 MHz



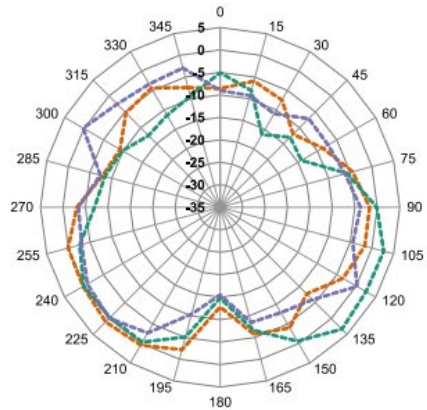
2200 MHz



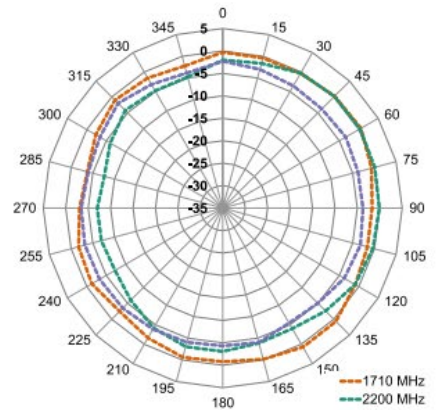
2690 MHz



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain

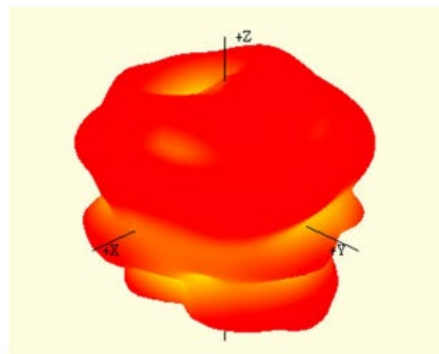
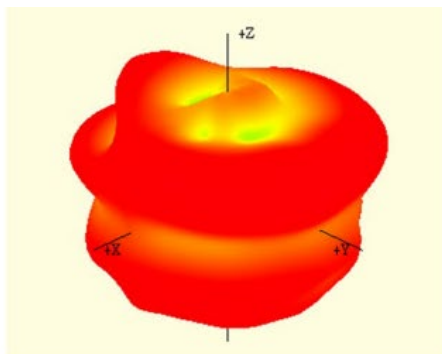
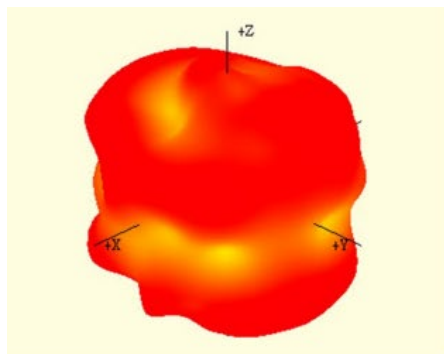
— 1710 MHz
— 2200 MHz
— 2690 MHz

NANE27X188WTMC450M7F

5G LTE External Antenna



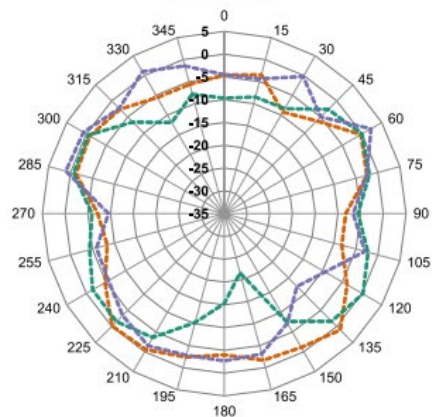
3300 MHz ~ 5000 MHz (4200 MHz)



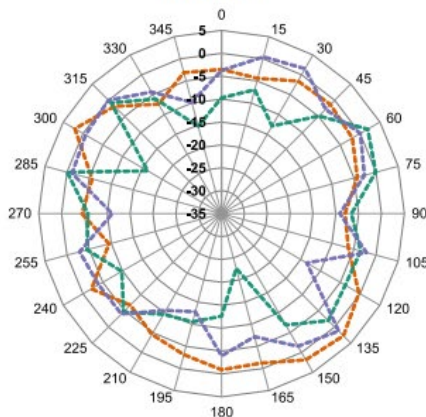
3300 MHz

4200 MHz

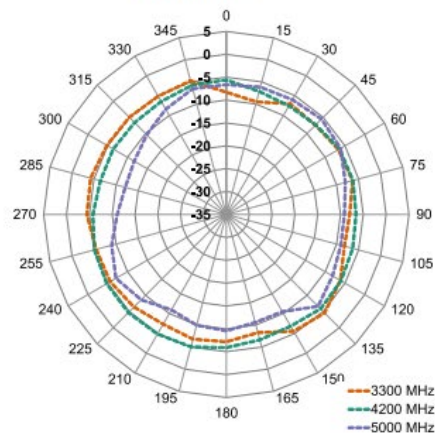
5000 MHz



XZ-Plane Gain



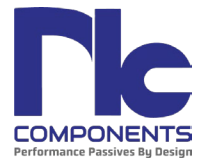
YZ-Plane Gain



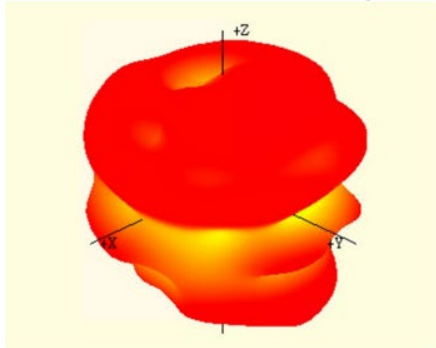
XY-Plane Gain

NANE27X188WTMC450M7F

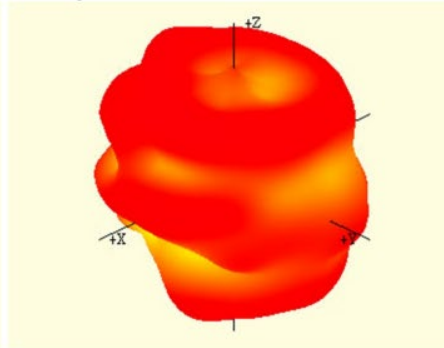
5G LTE External Antenna



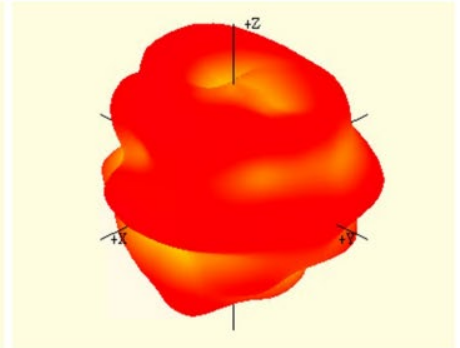
5150 MHz ~ 5850 MHz (5550 MHz)



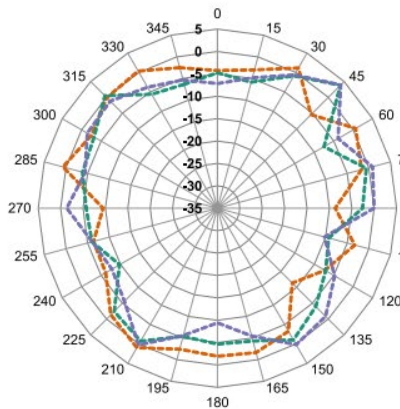
5150 MHz



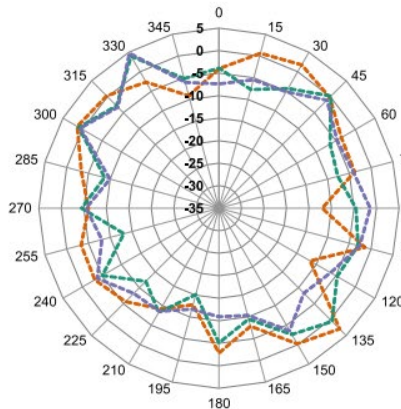
5550 MHz



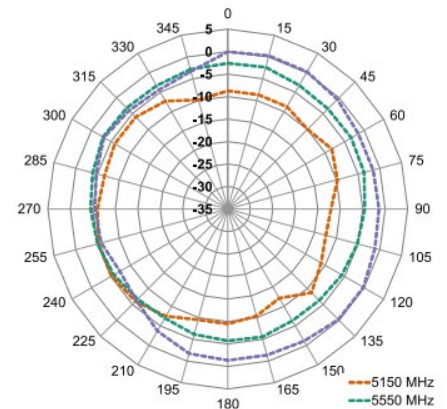
5850 MHz



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain

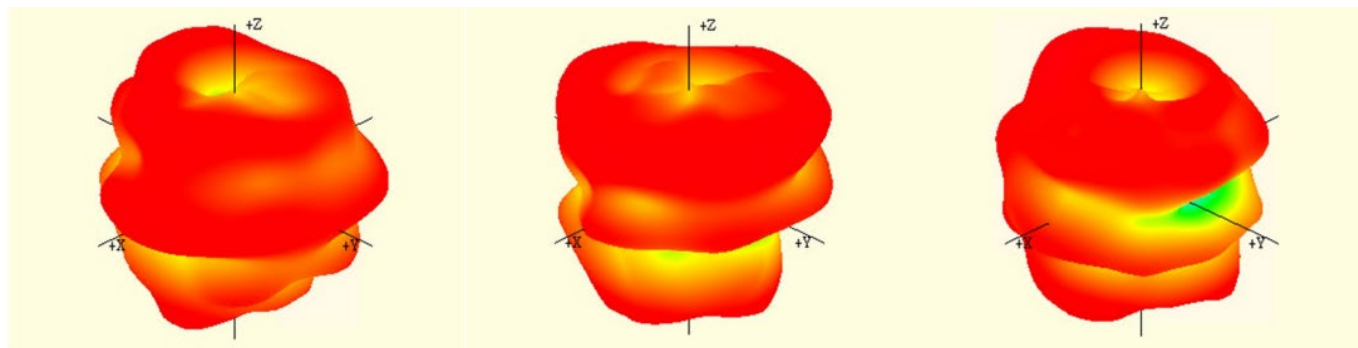
— 5150 MHz
— 5550 MHz
— 5850 MHz

NANE27X188WTMC450M7F

5G LTE External Antenna



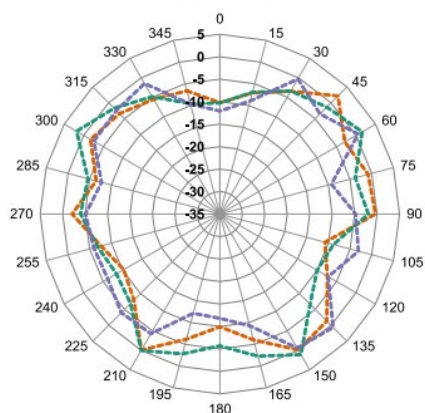
5925 MHz ~ 7125 MHz (6525 MHz)



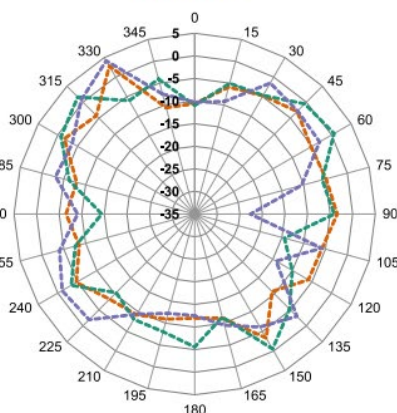
5925 MHz

6525 MHz

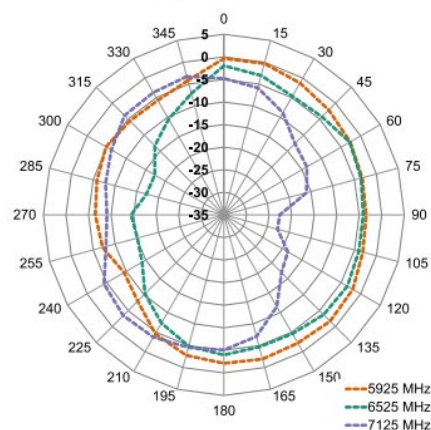
7125 MHz



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain