

RSGx-4G/5G-3-NF Low Profile Antenna

The RFBMax RSGB is a heavy-duty, high-performance, vandal proof cellular antenna from RFBMAX. This low profile, nmo mount antenna is primarily used for cellular machine to machine (M2M) communications across the 3G/4G/LTE/5G bands of 617-960/1695-7125 MHz. IP67 rated for outdoor use, and perfect for vehicular applications when mounting to a cars, trucks or vans which allows it to connect easily to the Verizon, AT&T, T-Mobile, Sprint(1900 MHz - band 25, 2500 MHz - band 41, band 42, band 71 and 850 MHz), Rogers, and Telus networks.



- Wifi 6E 4G/5G FR1
- 4G/5G (LTE) Dual Band WiFi Support
- Includes Band 71 (617-698 MHz) and CBRS bands 42 and 48 (3.4-3.7 Ghz)
- Utility boxes, smart metering, IOT devices
- With Permanent N-Female Connector
- Available in black or white

Applications: CBRS Bands 42 and 48 (3.4-3.7 GHz), Utility boxes, Smart metering, IoT Devices.



WIFI



LTE



900 MHz



PUBLIC SAFETY



5G

Part Numbers Configurator:

RSG	B/W	4G/5G	3	NF
Model	Color (Black/White)	Frequency	Gain	Mount NF/NMO

ELECTRICAL DATA

Antenna Type	Multiband Monopole
Frequency	617-960/1695-7125 MHz
Nominal Impedance	50
VSWR (617-960/1695-7125)	3:1/2.5:1
Average peak gain (617-960/1695-7125)	2/4 dBi
Average efficiency (617-960/1695-7125)	80/65 %
Radiation Pattern	Omni
HPBW Vertical Plane (617-960/1695-7125)	65/40°
Polarization	Vertical

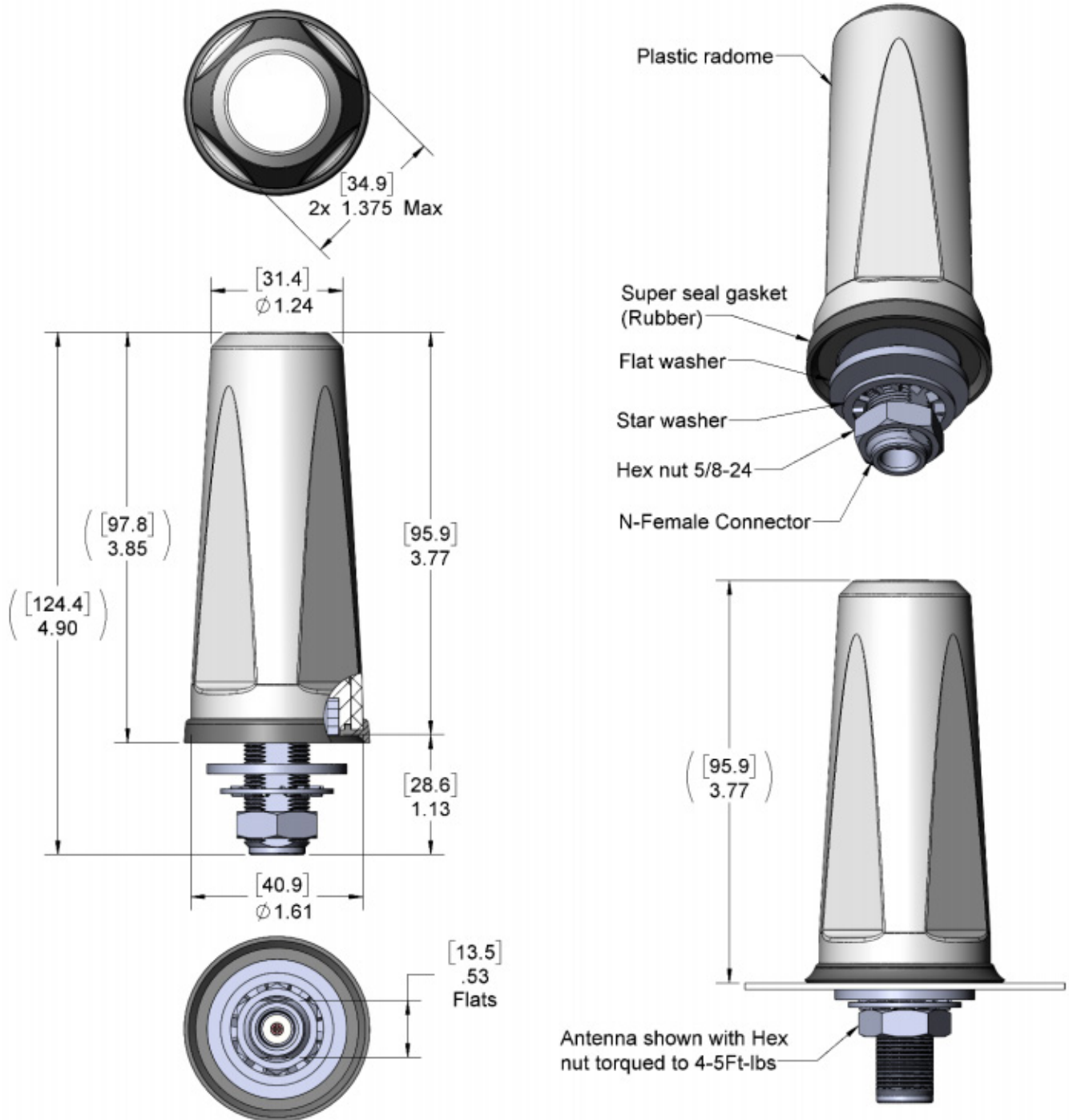
MECHANICAL DATA

Diameter/height	1.61"/3.77" (40.9/95.9mm)
Weight	.36lbs (163g)
Antenna Color/Material	Black or White / PET+PC
	3:1/2.5:1
Average peak gain (617-960/1695-7125)	2/4 dBi
Average efficiency (617-960/1695-7125)	80/65 %
Radiation Pattern	Omni
HPBW Vertical Plane (617-960/1695-7125)	65/40°
Polarization	Vertical
Average Power rating	45 W

ENVIRONMENTAL DATA

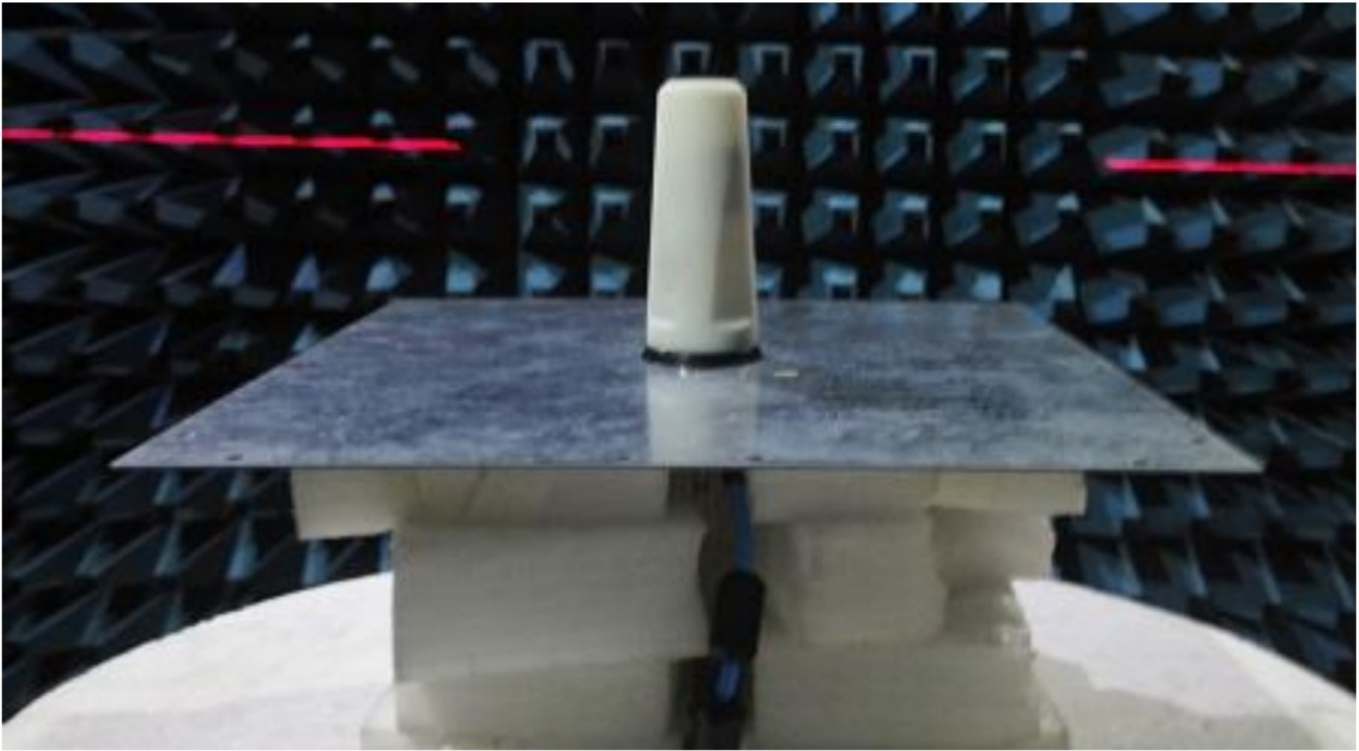
Operating Temperature	-40° to +85° C
Storage Temperature	-40° to 85° C
Ingress Protection	IP66 and IP67
RoHS-6	YES
Average peak gain (617-960/1695-7125)	2/4 dBi

Mechanical Drawing



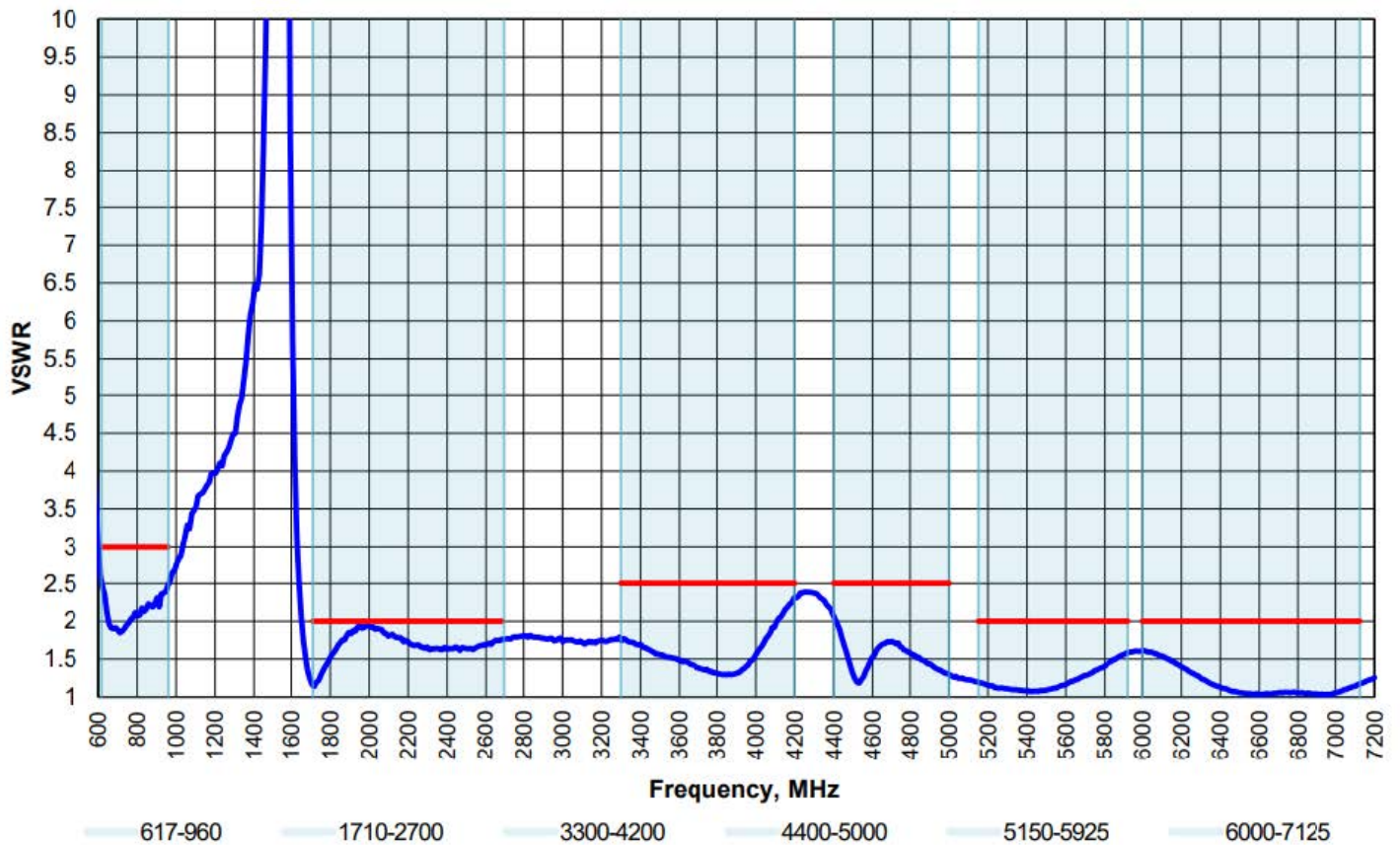
Dimensions: Inches (mm)

Unless otherwise specified, all tolerances are $\pm .010$ (0.25mm)

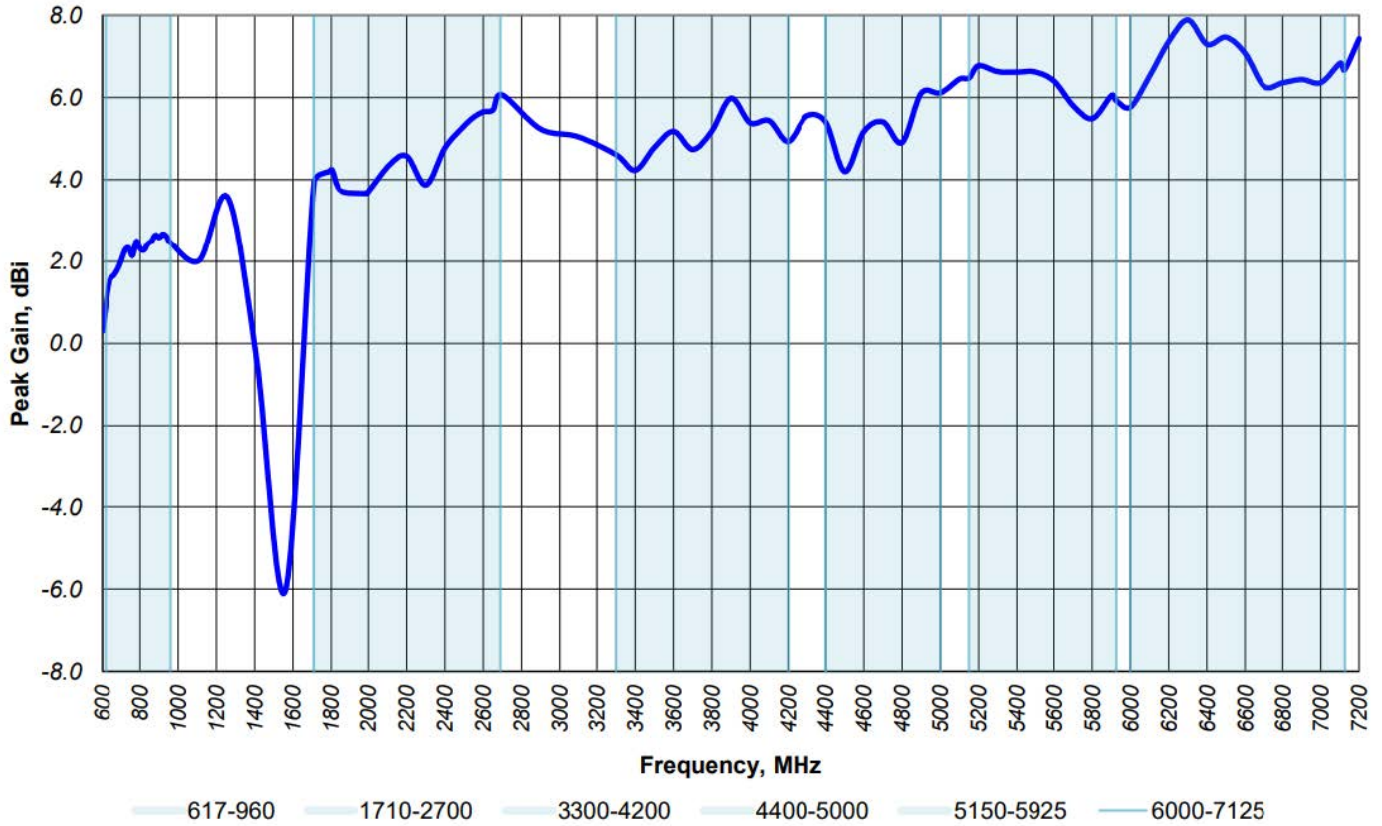


antenna sample measured on 12" (305mm) SQ ground plane.

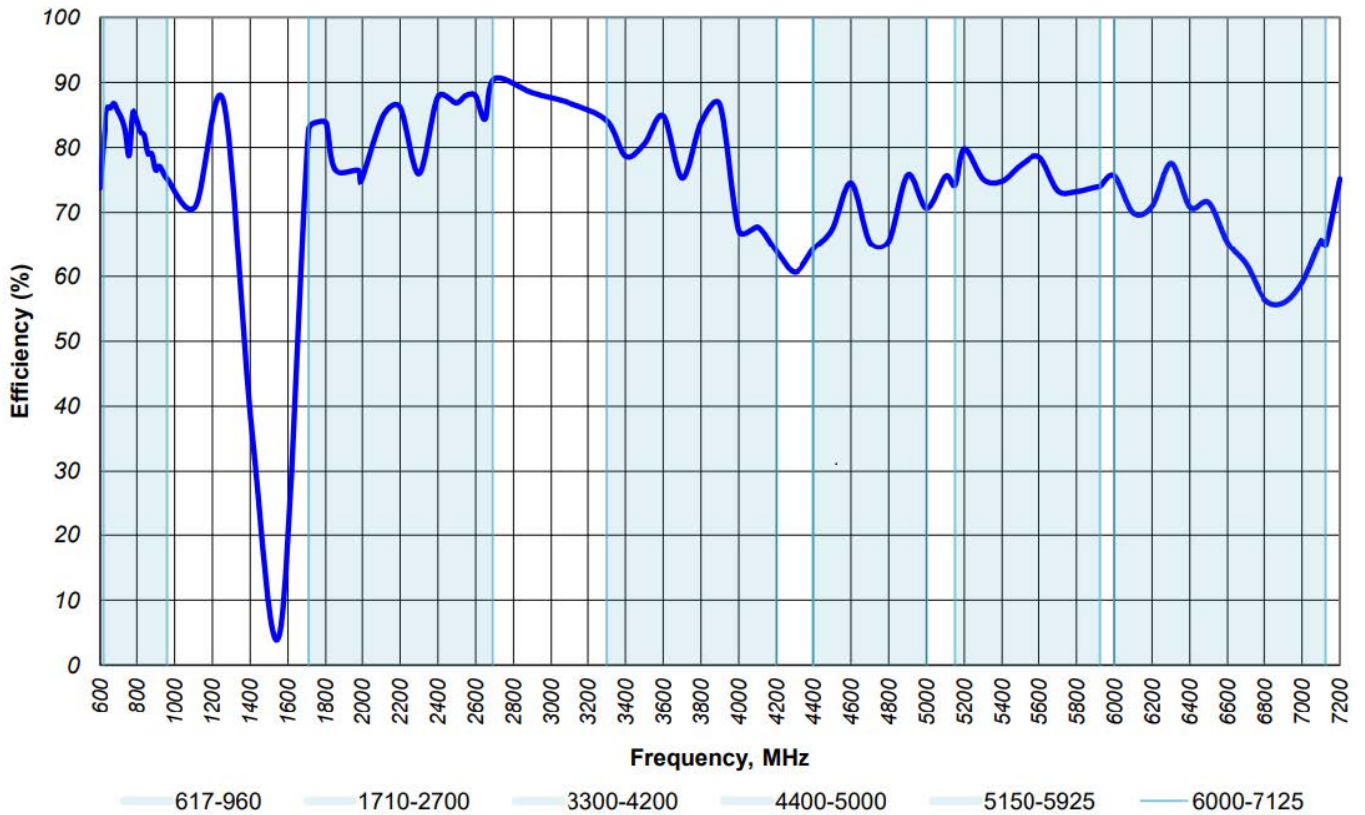
VSWR vs Frequency
Measured on 12" SQ GP

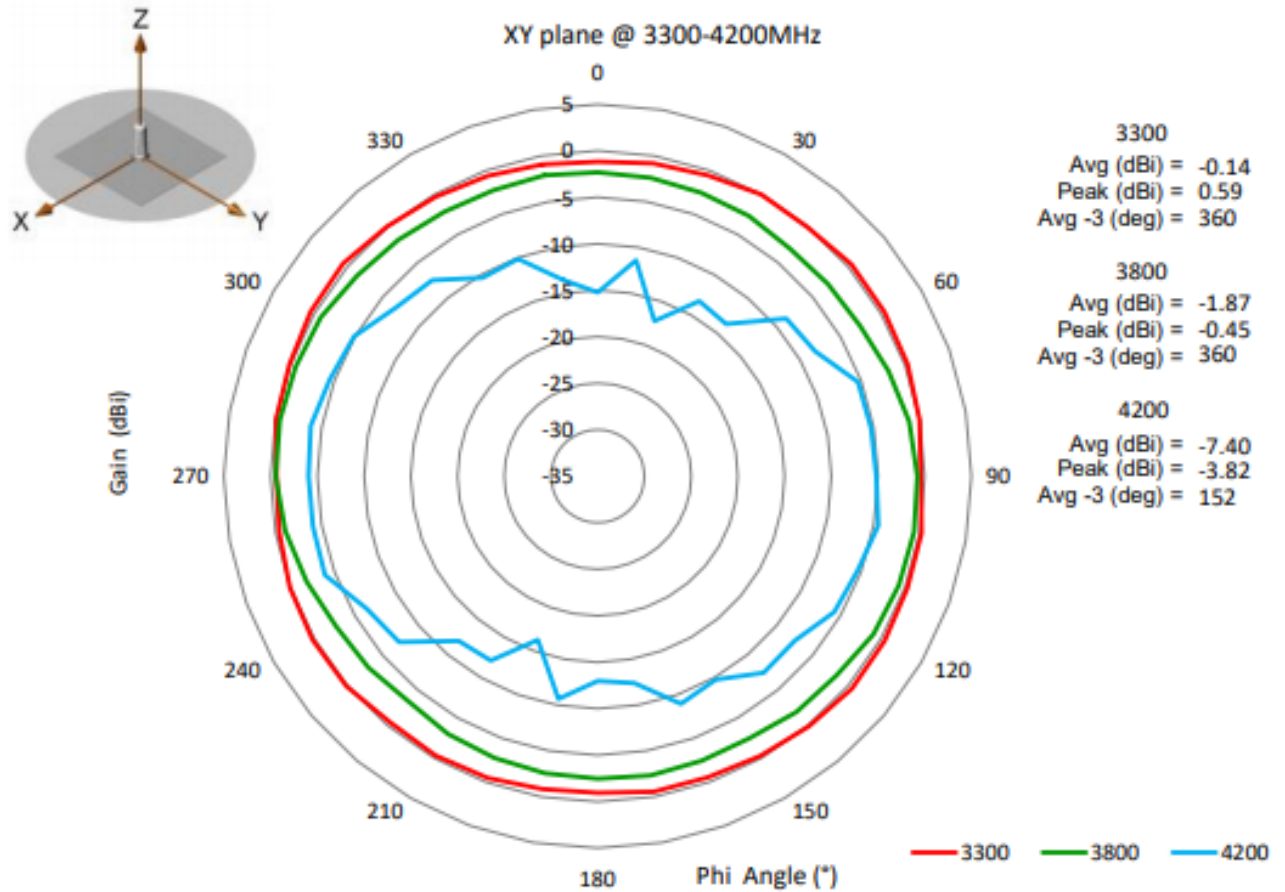
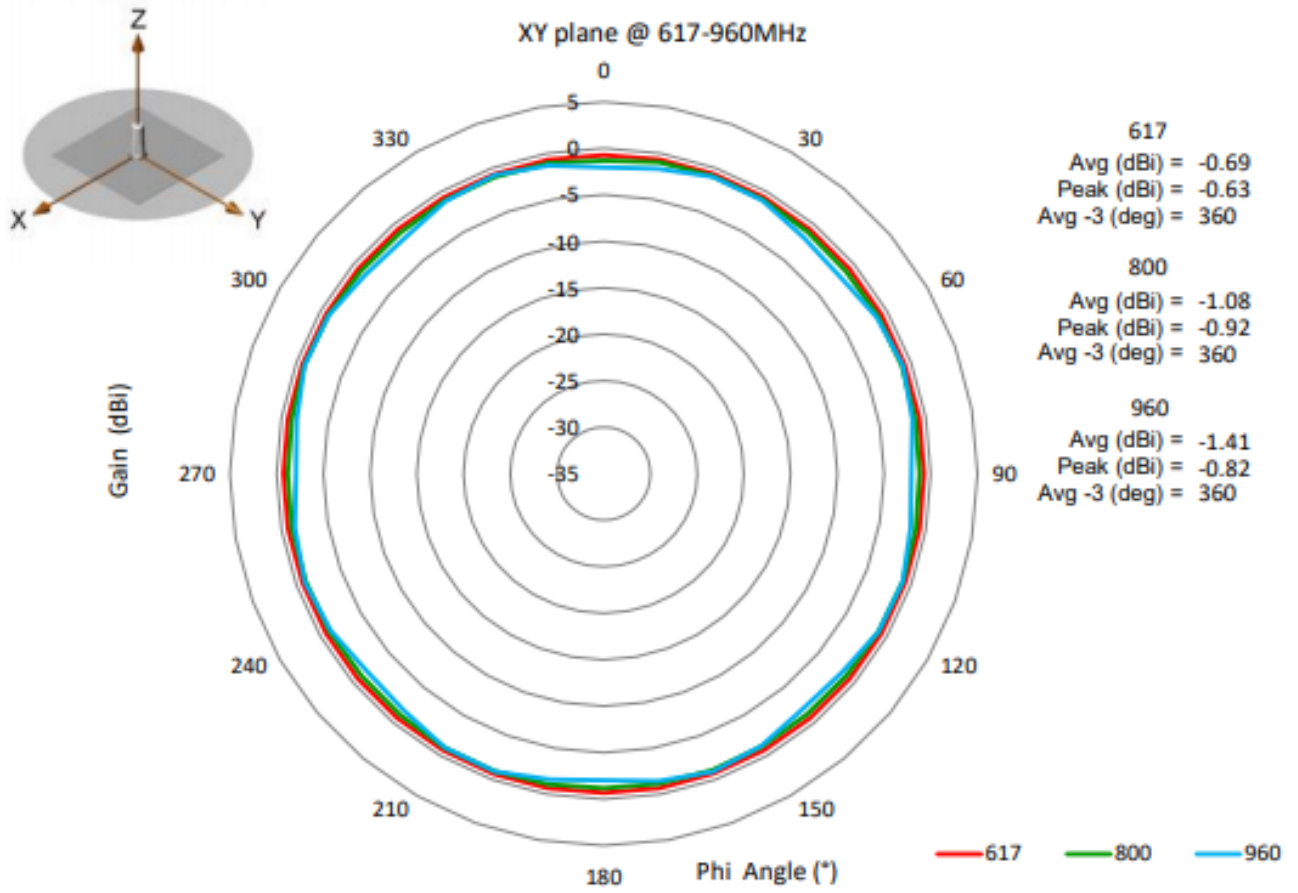


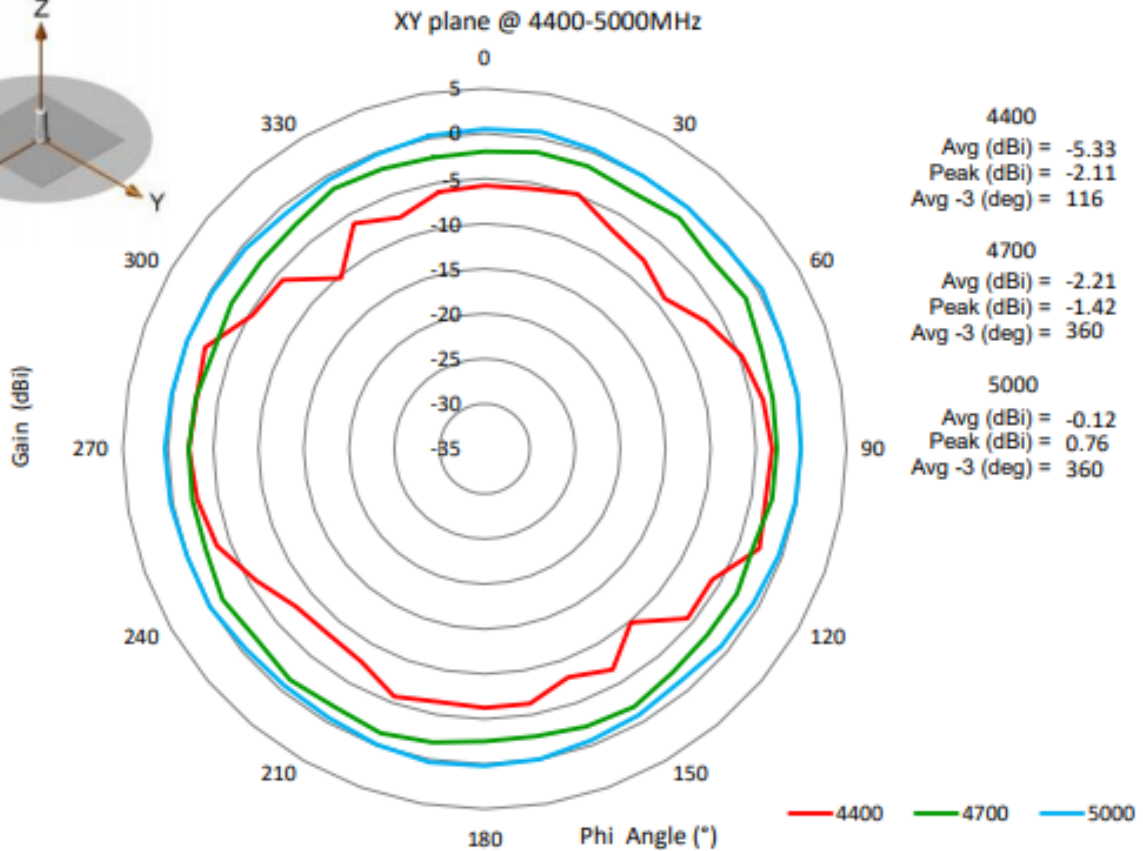
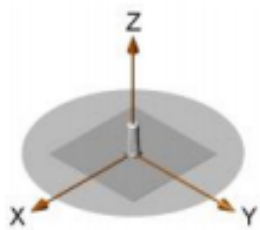
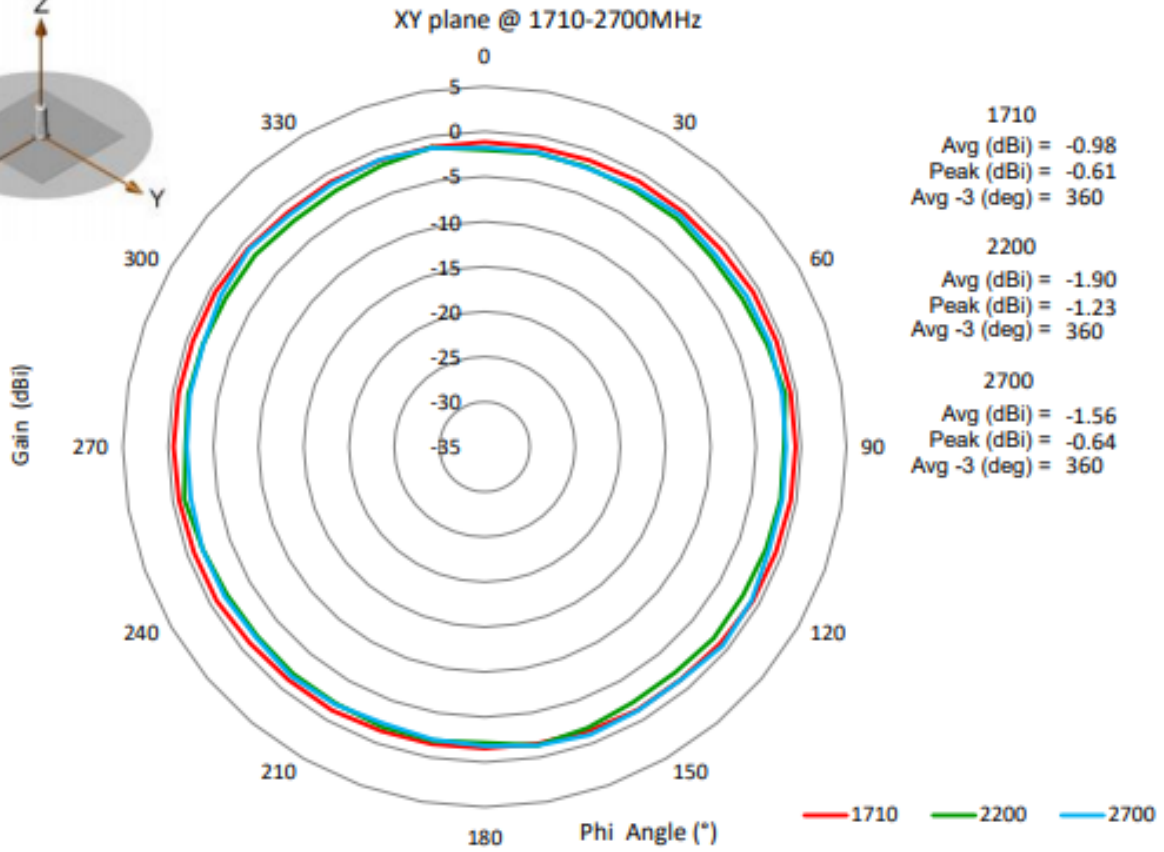
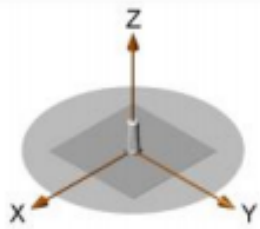
Peak Gain vs Frequency Measured on 12" SQ GP

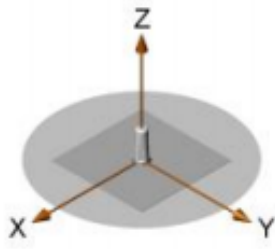


Efficiency vs Frequency Measured on 12" SQ GP

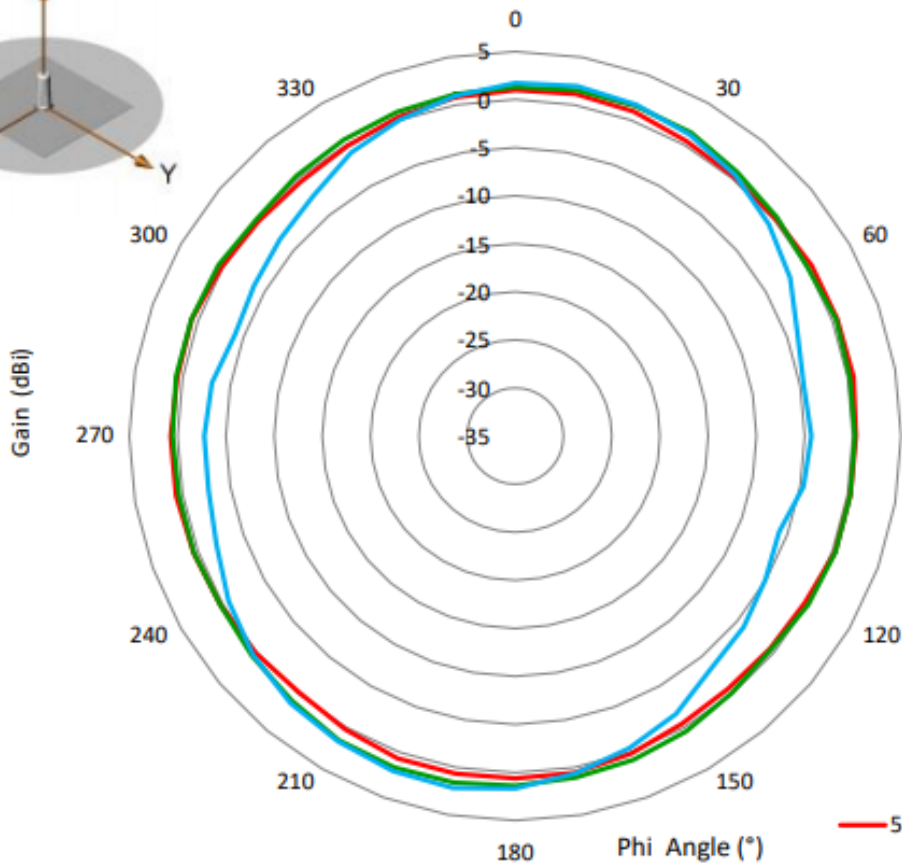








XY plane @ 5150-5925MHz

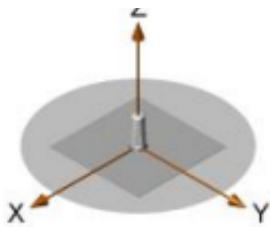


5150
Avg (dBi) = 0.33
Peak (dBi) = 1.12
Avg -3 (deg) = 360

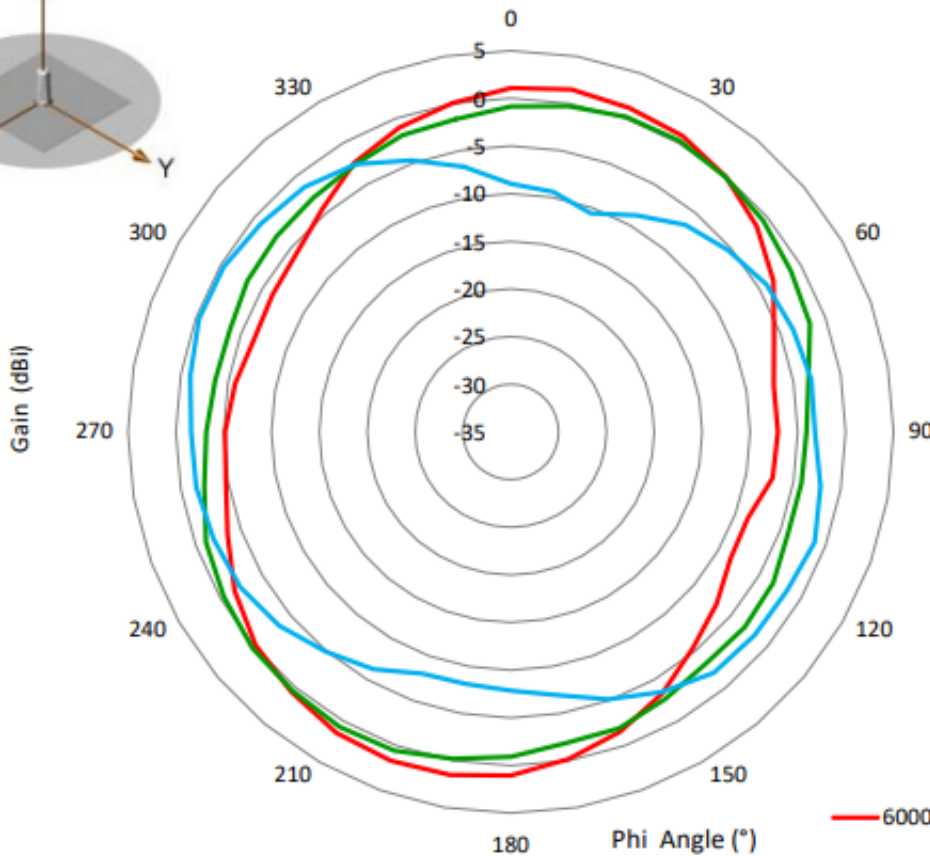
5500
Avg (dBi) = 0.72
Peak (dBi) = 1.67
Avg -3 (deg) = 360

5925
Avg (dBi) = -0.70
Peak (dBi) = 2.16
Avg -3 (deg) = 170

— 5150 — 5500 — 5925



XY plane @ 6000-7125MHz

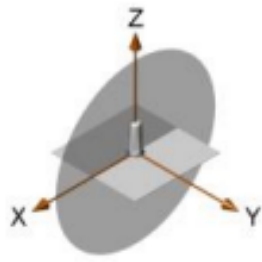


6000
Avg (dBi) = -1.70
Peak (dBi) = 1.72
Avg -3 (deg) = 152

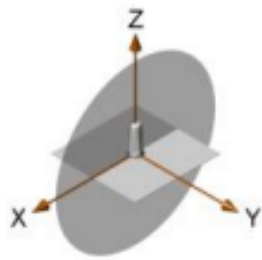
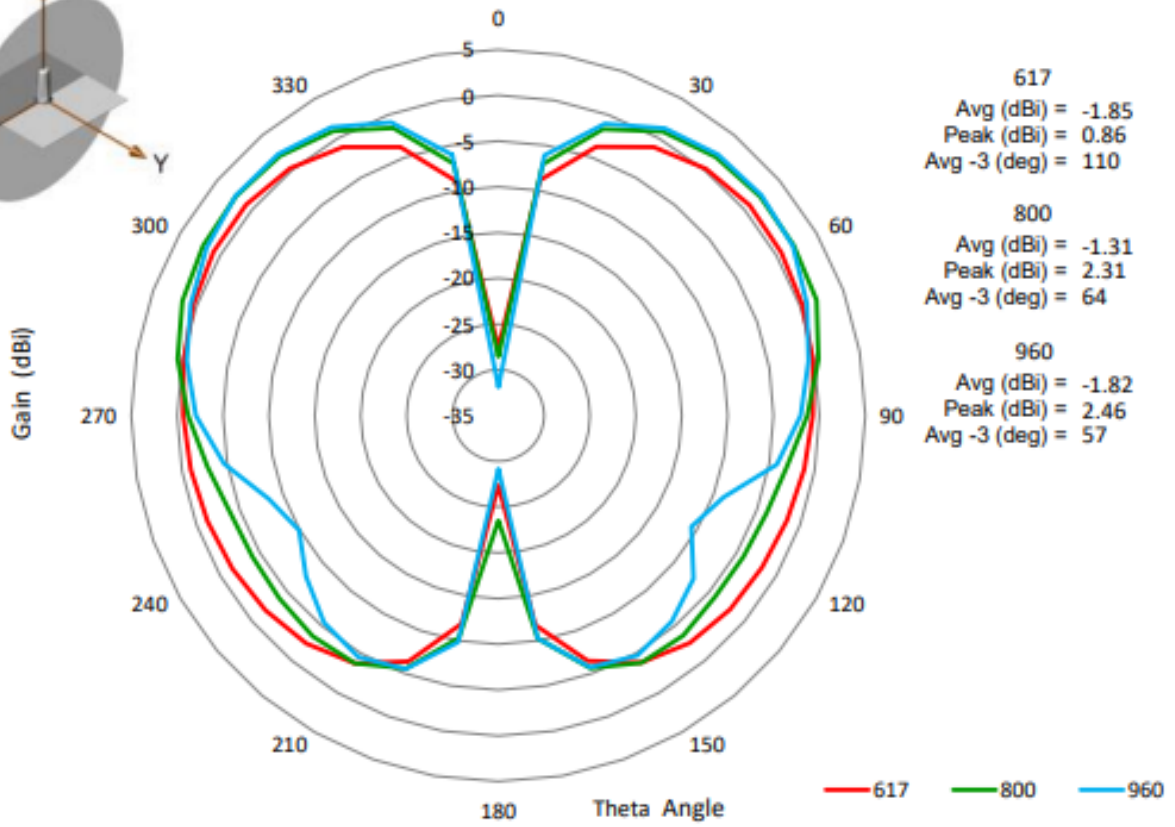
6500
Avg (dBi) = -1.54
Peak (dBi) = 0.75
Avg -3 (deg) = 208

7125
Avg (dBi) = -3.41
Peak (dBi) = -0.33
Avg -3 (deg) = 208

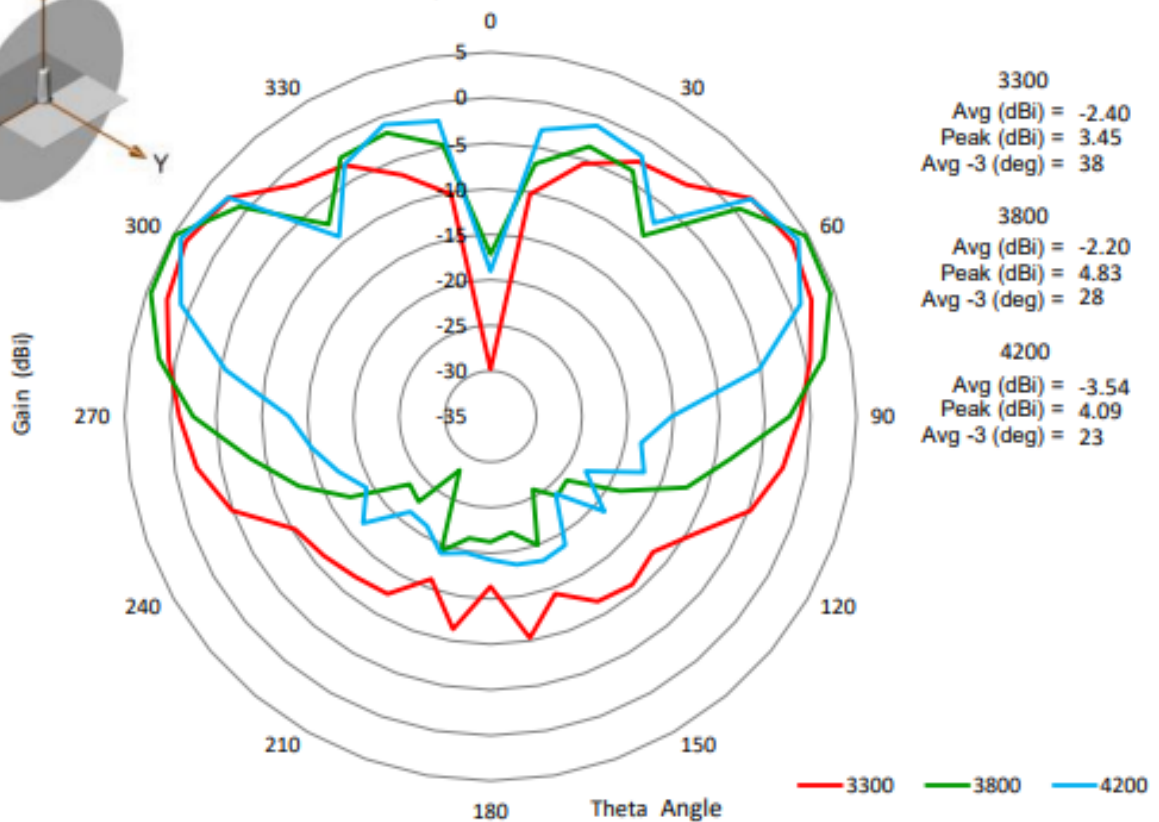
— 6000 — 6500 — 7125

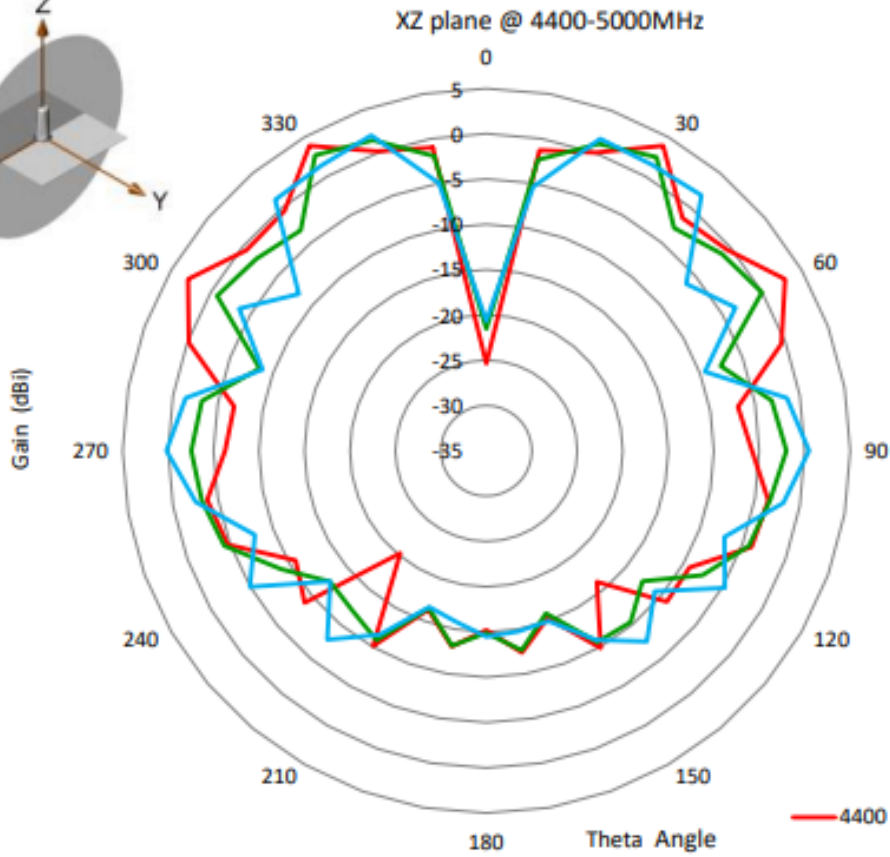
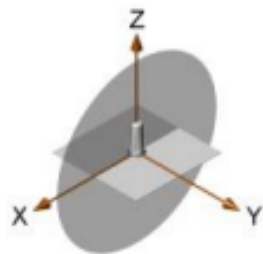
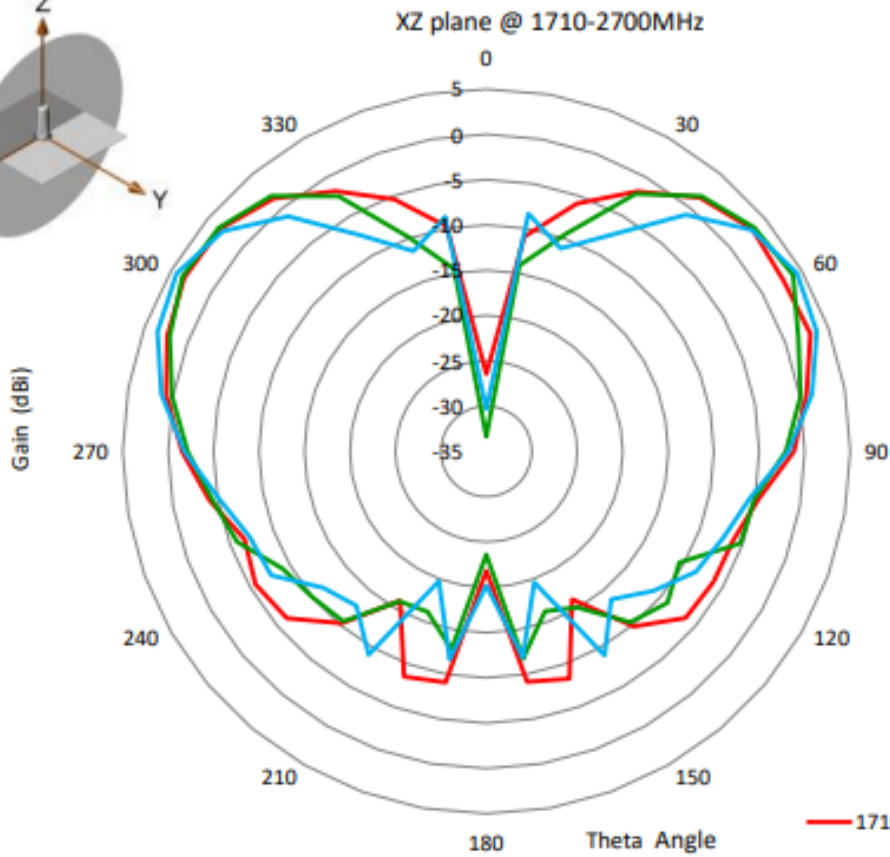
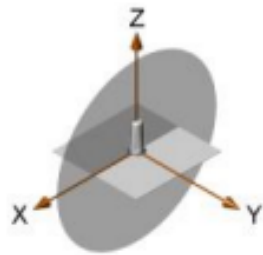


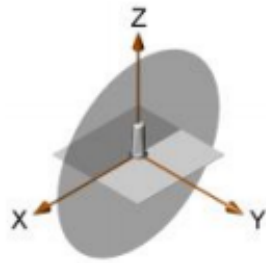
XZ plane @ 617-960MHz



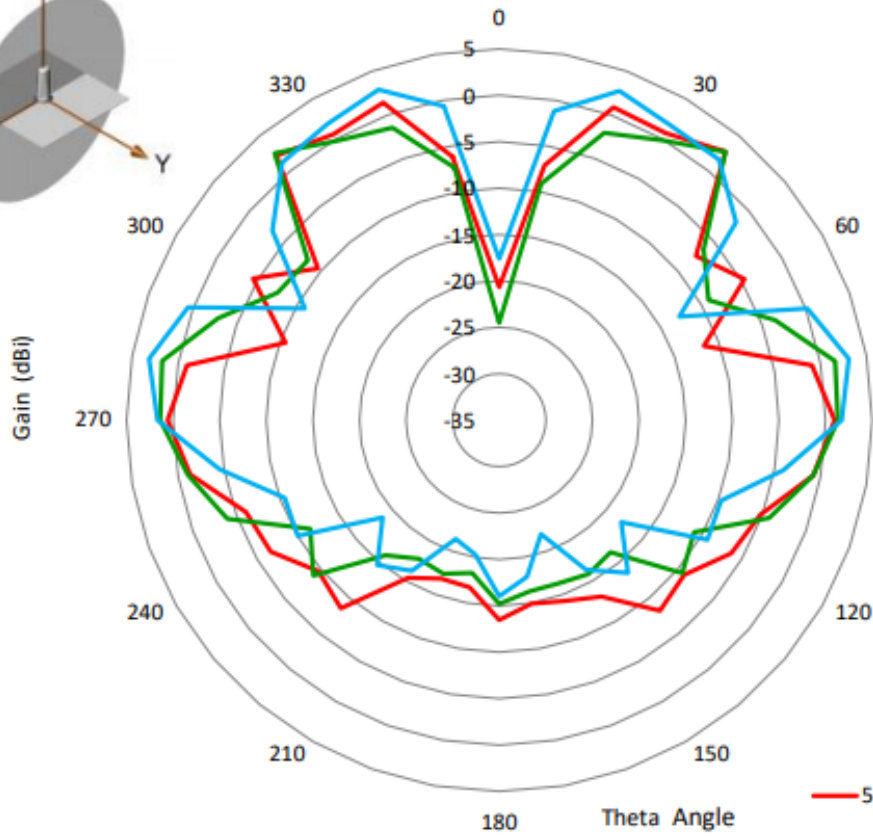
XZ plane @ 3300-4200MHz





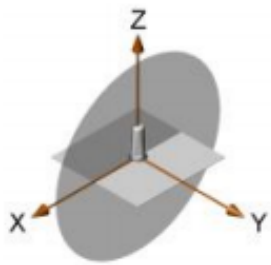


XZ plane @ 5150-5925MHz

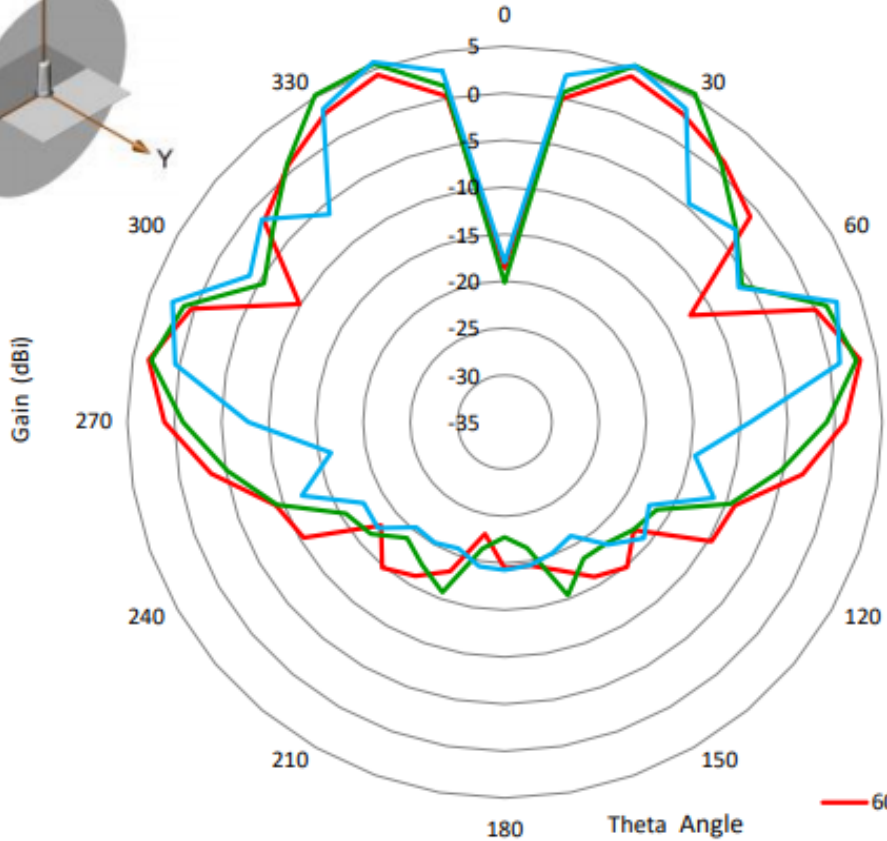


5150	Avg (dBi) = -3.16
	Peak (dBi) = 2.76
	Avg -3 (deg) = 29
5500	Avg (dBi) = -3.13
	Peak (dBi) = 2.74
	Avg -3 (deg) = 17
5925	Avg (dBi) = -1.92
	Peak (dBi) = 3.17
	Avg -3 (deg) = 25

— 5150 — 5500 — 5925



XZ plane @ 6000-7125MHz



6000	Avg (dBi) = -1.43
	Peak (dBi) = 4.34
	Avg -3 (deg) = 26
6500	Avg (dBi) = -0.87
	Peak (dBi) = 5.54
	Avg -3 (deg) = 25
7125	Avg (dBi) = -1.69
	Peak (dBi) = 5.75
	Avg -3 (deg) = 22

— 6000 — 6500 — 7125