

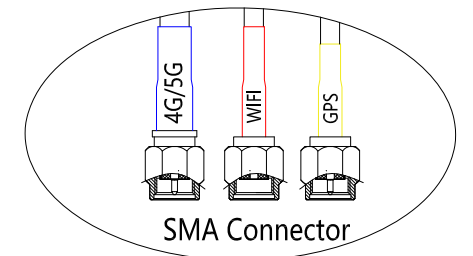
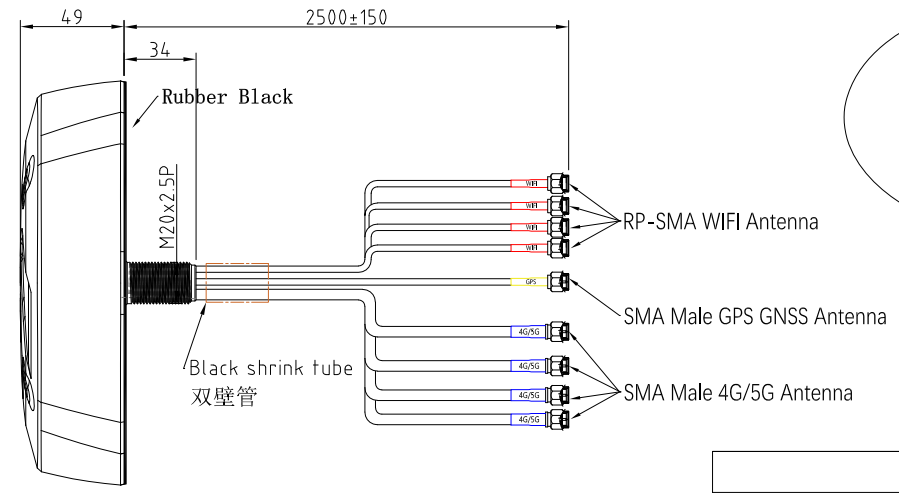
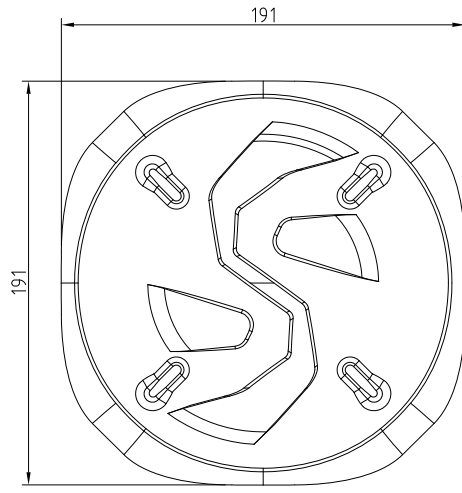
M191 Antenna installation methods

Electrical Properties	
Frequency Range	4x 600~6000MHZ 2x 2.4~7.125GHZ 1x 1575.42~1609MHZ
Impedance	50 $\Omega$
V.S.W.R.	5G $\leq 3.0$ WIFI $\leq 2.0$ GPS $\leq 2.0$
Radiation	Omni
Gain	4G/5G:6/7/10dBi WIFI:6/7dBi GPS:28dBi
Polarization	Vertical
Mechanical Properties	
Whip	PC
Standard Connector	SMA
Waterprooflevel	IP68
Operating Temp	- $\phi 40^{\circ}$ ~ +85 $^{\circ}$

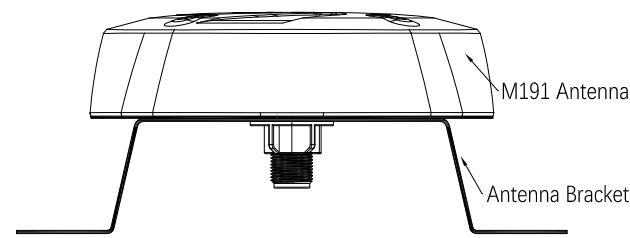
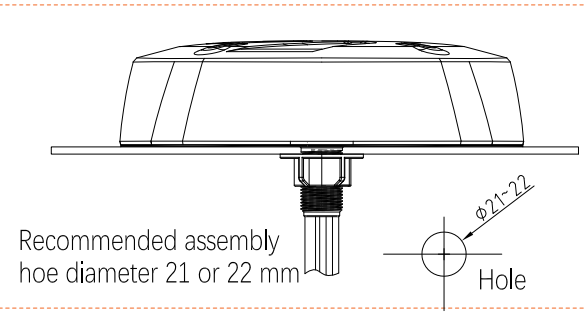
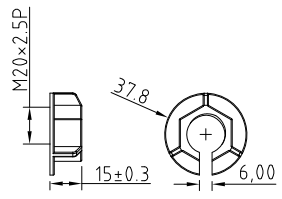
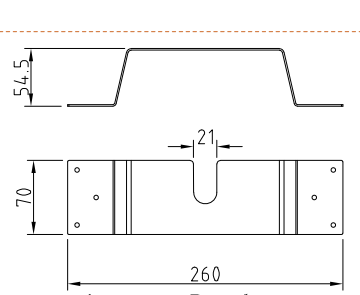
BOM				
NO	Name	Material	Finish	QTY
1	Housing	PC	BLACK	1
2	RS31 cable (5G)	PVC	BLACK	4
3	RS31 cable (WIFI)	PVC	BLACK	2
4	RG174 cable (GPS)	PVC	BLACK	1
5	5G/4G Antenna		Silver	4
6	WIFI Antenna		Silver	2
7	GPS Antenna			1
8	SMA Male (5G)	BRASS	GOLD	4
9	RP-SMA Male (WIFI)	BRASS	GOLD	2
10	SMA Male (GPS)	BRASS	GOLD	1
11	Rubber-1	Silicone Rubber	BLACK	1
12	Rubber-2	Silicone Rubber	BLACK	1
13	NUT	PA66	BLACK	1
14	Shrink tube	PET		1

THIRD ANGLE PROJECTION	DRAWN BY	li	MATERIAL:		PART NO:	M191.M1.7.333
	CHECKED BY		FINISH:	BLACK	TITLE:	5G 4G/WIFI/GPS 7in1 Antenna
	APPROVED BY	King	UNIT:	mm		
Tolerance	.X	$\pm 0.1$	DATE:	23. 5. 11	SCALE:	1/1
	.XX	$\pm 0.05$				
	.x	$\pm 1^{\circ}$				





4G/5G Blue Shrink tube  
 WIFI RED Shrink tube  
 GPS yellow Shrink tube



M191 Antenna installation methods

Electrical Properties	
Frequency Range	4x 600~6000MHZ 4x 2.4~7.125GHZ 1x 1575.42~1609MHZ
Impedance	50 Ω
V.S.W.R.	5G ≤3.0 WIFI ≤2.0 GPS ≤2.0
Radiation	Omni
Gain	4G/5G:6/7/10dBi WIFI:6/7dBi GPS:28dBi
Polarization	Vertical
Mechanical Properties	
Whip	PC
Standard Connector	SMA
Waterprooflevel	IP67
Operating Temp	-φ40°~ +85°

BOM				
NO	Name	Material	Finish	QTY
1	Housing	PC	BLACK	1
2	RS200 cable(5G)	PVC	BLACK	4
3	RS100 cable (WIFI)	PVC	BLACK	4
4	RG174 cable (GPS)	PVC	BLACK	1
5	5G/4G Antenna	PIFA	Silver	4
6	WIFI Antenna	PIFA	Silver	4
7	GPS Antenna			1
8	SMA Male (5G)	BRASS	GOLD	4
9	RP-SMA Male (WIFI)	BRASS	GOLD	4
10	SMA Male (GPS)	BRASS	GOLD	1
11	Rubber-1	Silicone Rubber	BLACK	1
12	Rubber-2	Silicone Rubber	BLACK	1
13	NUT	PA66	BLACK	1
14	Shrink tube	PET		5

THIRD ANGLE PROJECTION	DRAWN BY	li	MATERIAL:		PART NO:	M191.M1.9.333
	CHECKED BY		FINISH:	BLACK	TITLE:	5G 4G/WIFI/GPS 9in1 Antenna
	APPROVED BY	King	UNIT:	mm		
Tolerance	.X ±0.1	DATE:	22.12.6	SCALE:	1/1	
	.XX ±0.05					
	.x ±1°					



产品照片  
Product Photos



"M" aluminum bracket installation



"L" aluminum bracket installation

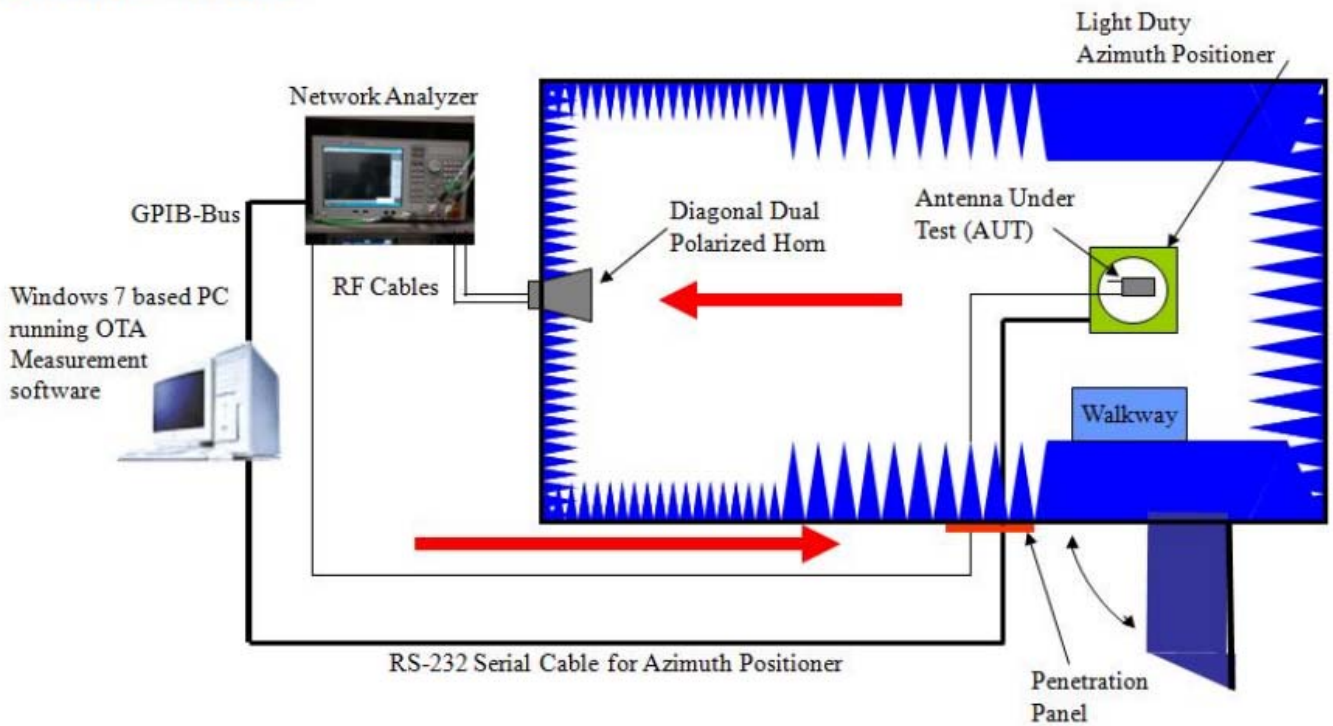


M20 screw installation

产 品 规 格 概 述  
Overview of product specification

<b>Electrical properties</b>	
4G/5G Frequency	600~6000MHZ
WiFi Frequency	2.4~2.5GHz/4.9~7.125GHz
GPS/GNSS Frequency	1575~1610MHz
Impedance	50 ohm Nominal
Return Loss	-10 dBi
VSWR Port 1&2	2.5:1 MAX
4G/5G Gain WiFi Gain GPS & GNSS	6/7/10dBi 6/7 dBi 28 dBi
Connector	SMA Male/RP SMAL Male
Cable length	RS031 BLACK 2 Meter
Efficiency (%) 4G/5G	600~2700MHz: 46%~97% 3000~4000MHz:62%~86% 4000~6000MHz:55%~96%
Efficiency (%) WiFi	2.4~2.5GHz :70%~81% 4.9~5.8GHz:55%~63% 6.0~7.3GHz:75%~81%
<b>Mechanical Properties</b>	
Radome	UV Resistant PC
Operating Temp	-40°C to +85°C
Radome Color	Black

## Passive mode

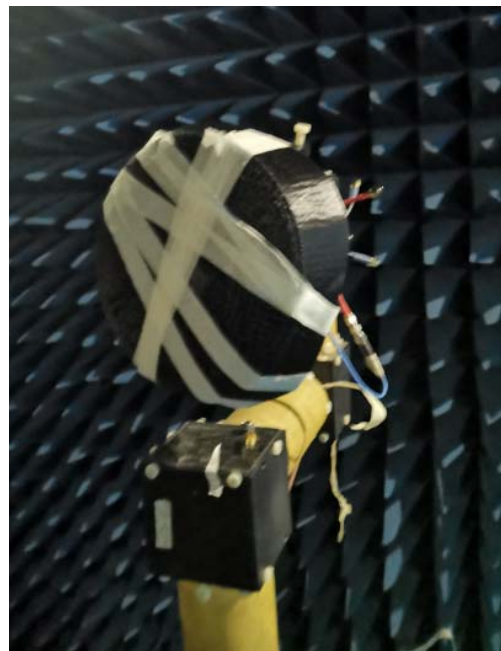
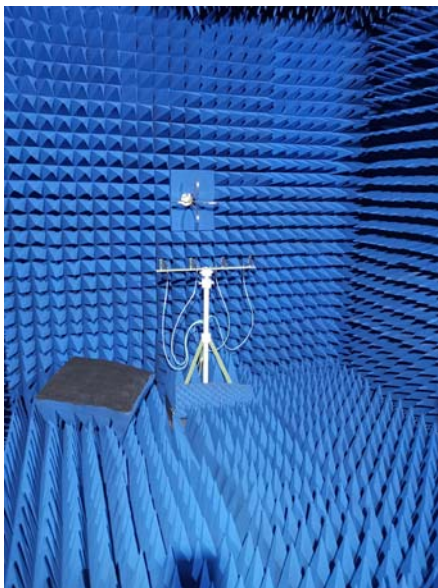


### TEST INSTRUMENT :

1. AGILENT E5071C NETWORK ANALYZER
2. 3D OTA Chamber(WanShih)

### Anechoic Chamber External Dimensions

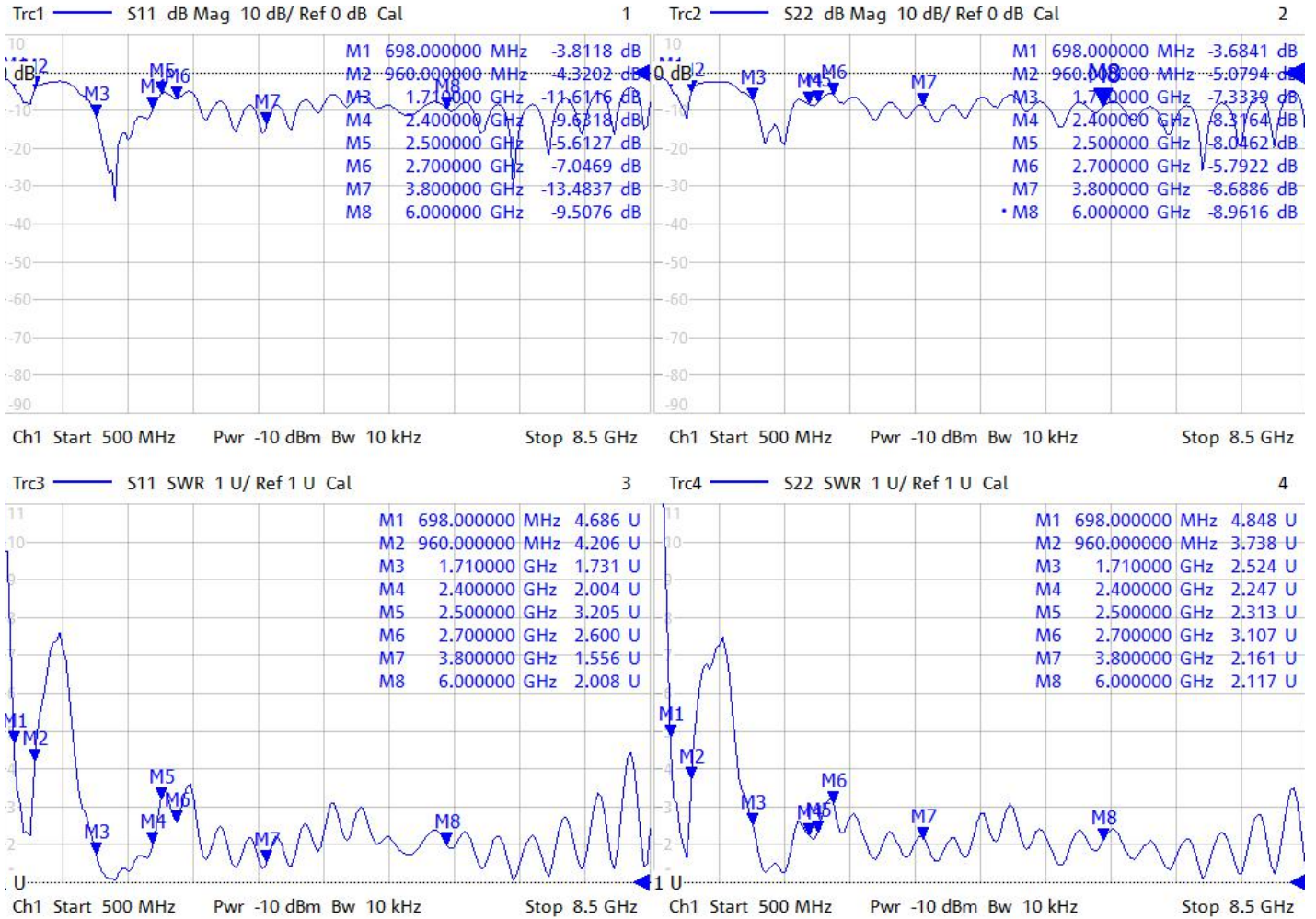
(L x W x H): 8m x 4m x 4m





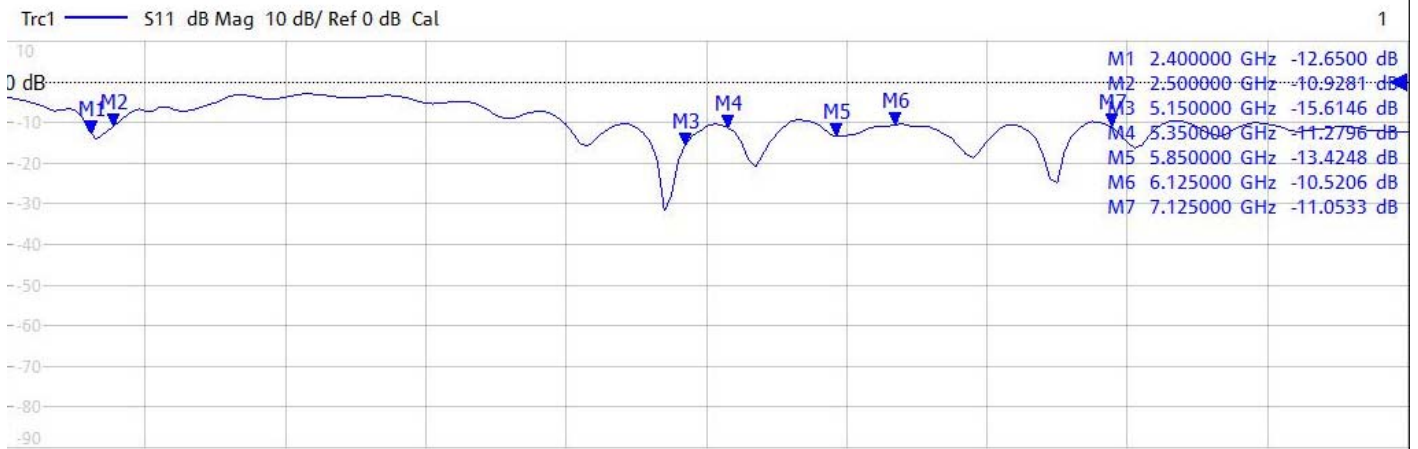
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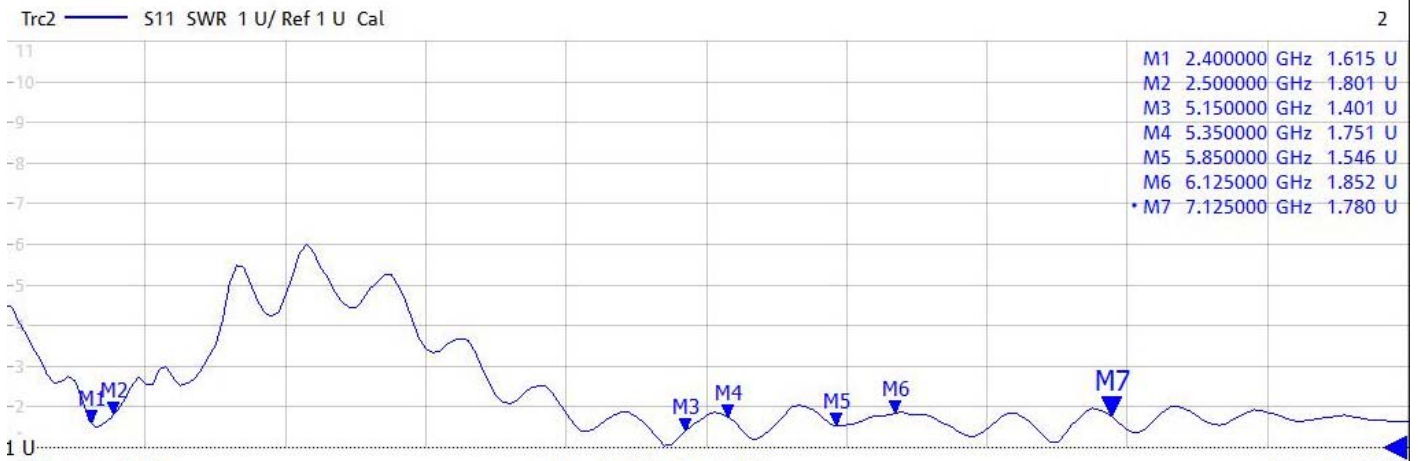


# WiFi VSWR Cable length 20CM

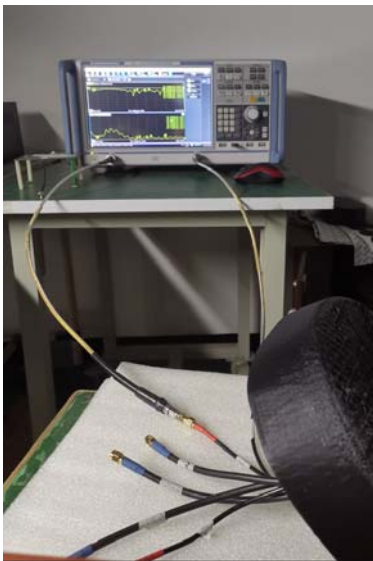
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Ch1 Start 2 GHz Pwr -10 dBm Bw 10 kHz Stop 8.5 GHz

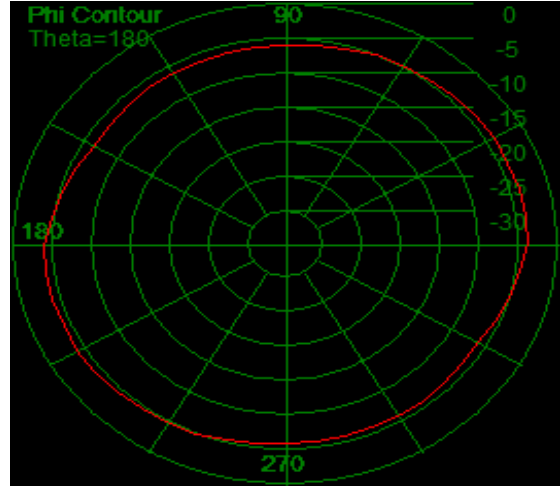
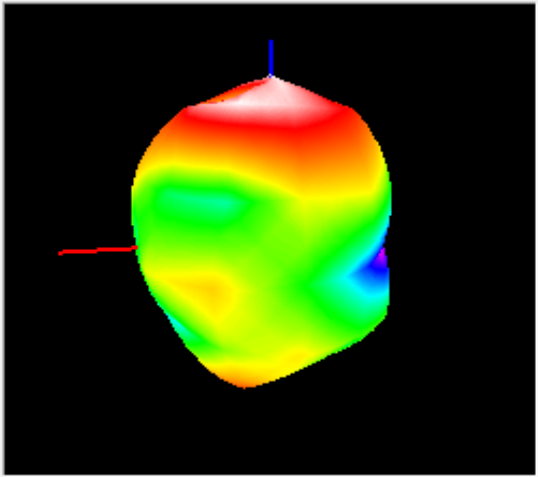


Ch1 Start 2 GHz Pwr -10 dBm Bw 10 kHz Stop 8.5 GHz

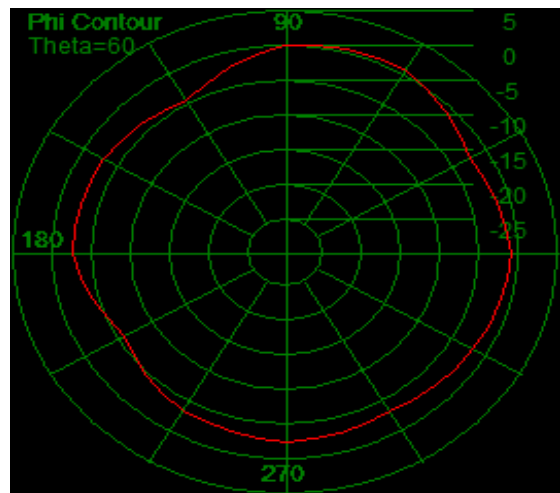
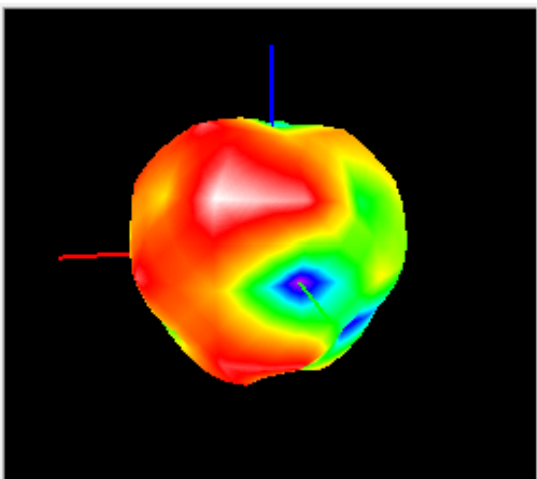


4G/5G Radiation Patterns

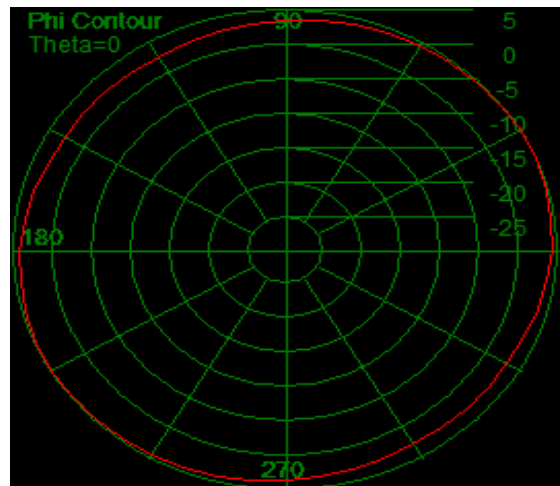
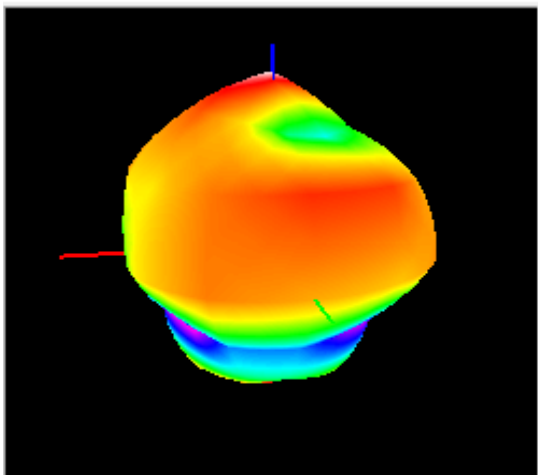
600MHz



698MHz



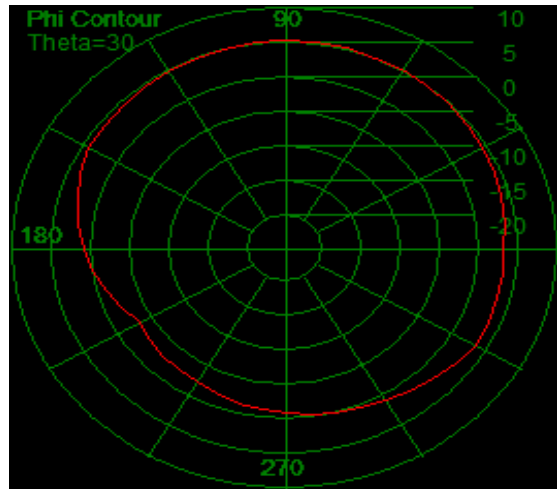
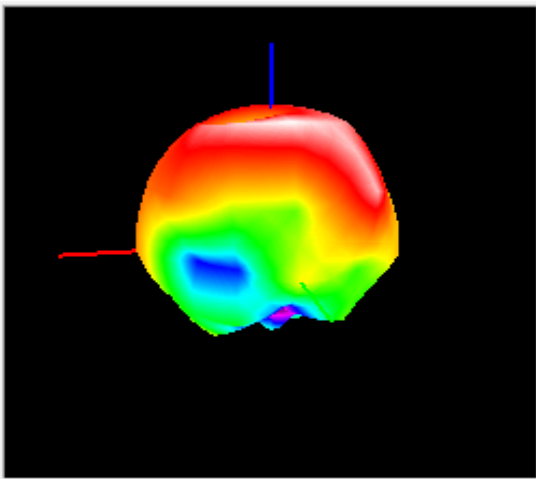
960MHz



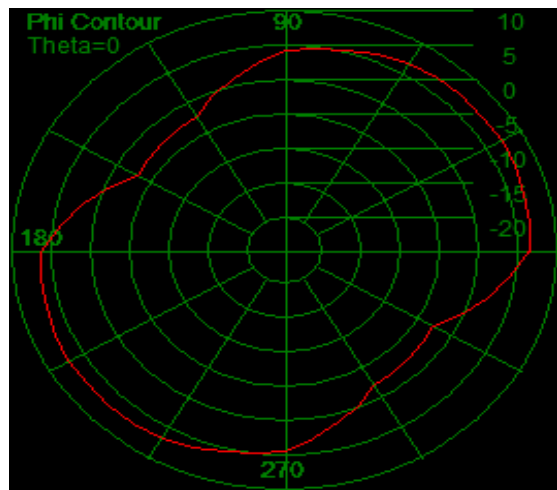
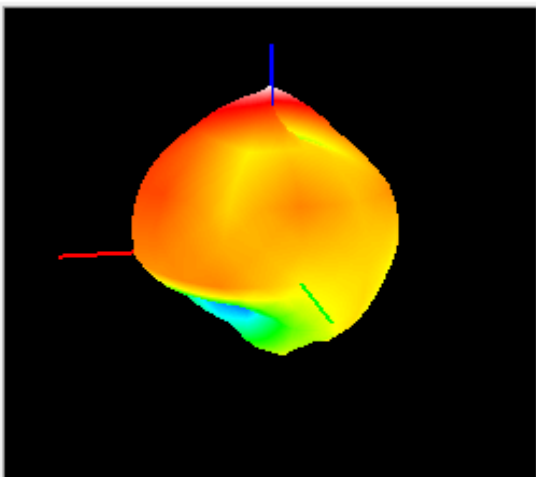


4G/5G Radiation Patterns

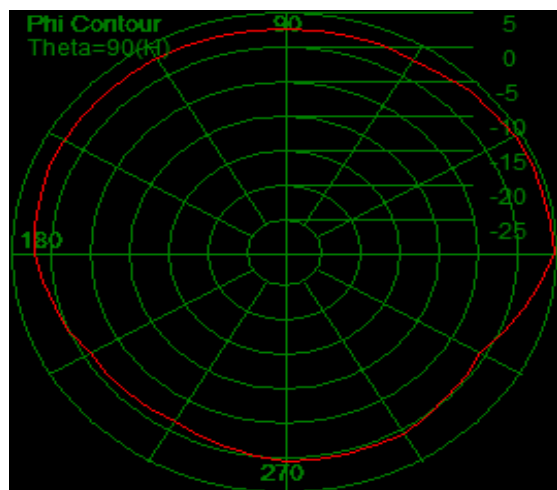
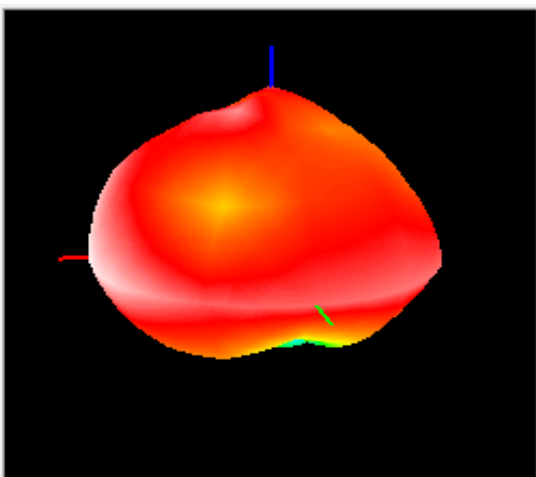
1710MHz



2170MHz

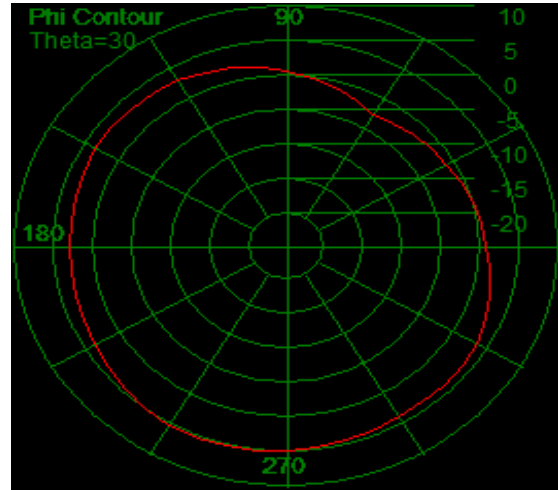
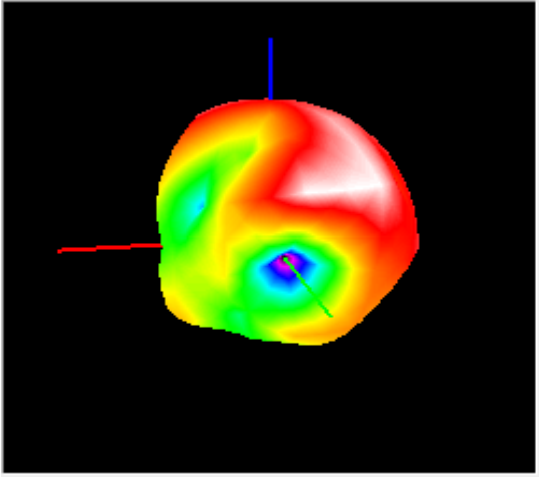


2700MHz

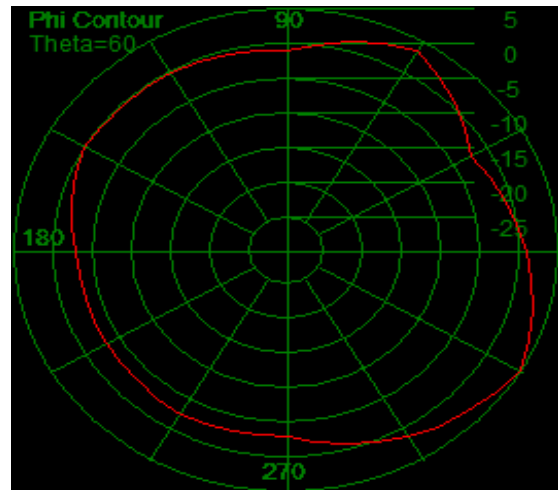
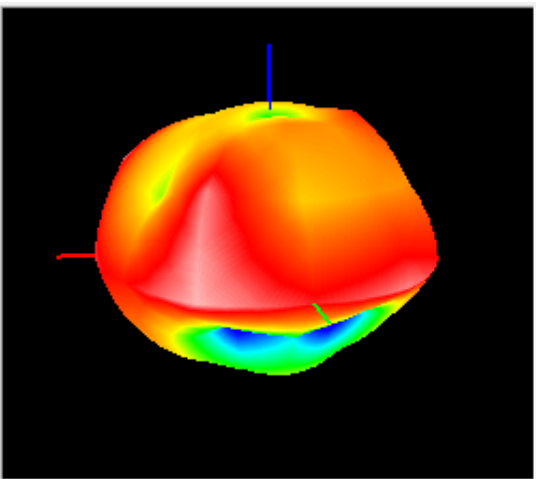


4G/5G Radiation Patterns

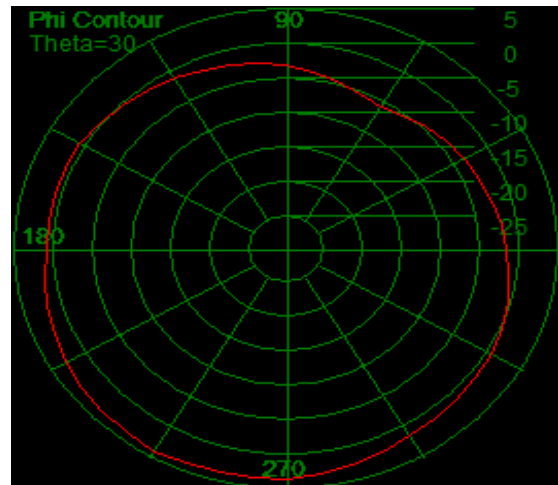
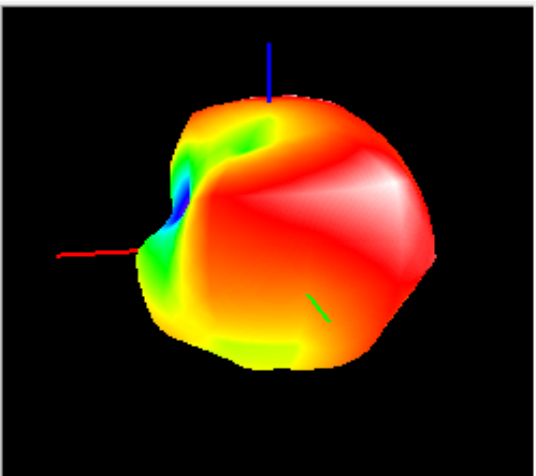
3800MHz



4000MHz

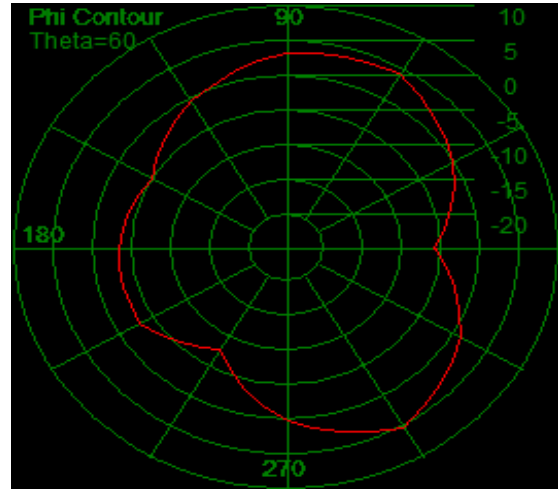
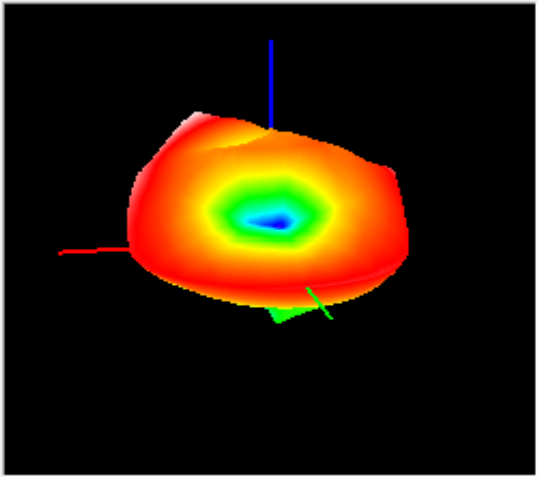


4500MHz

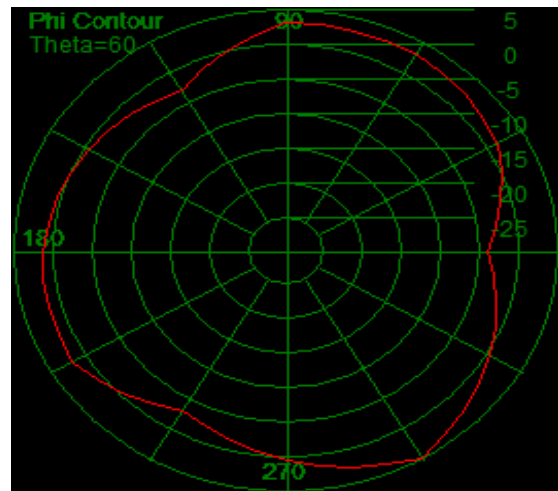
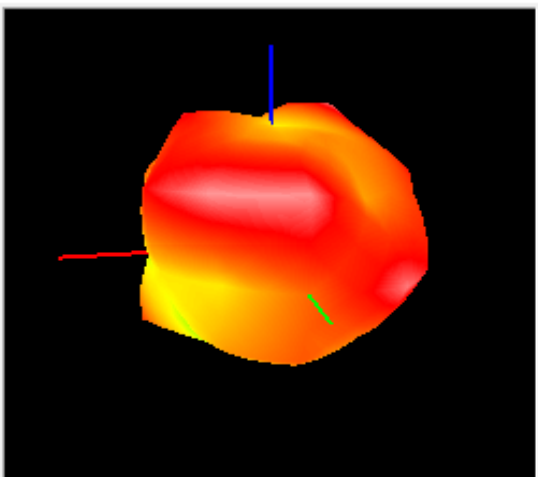


4G/5G Radiation Patterns

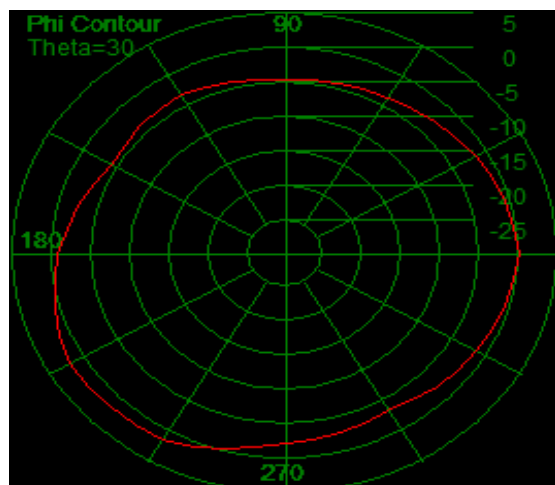
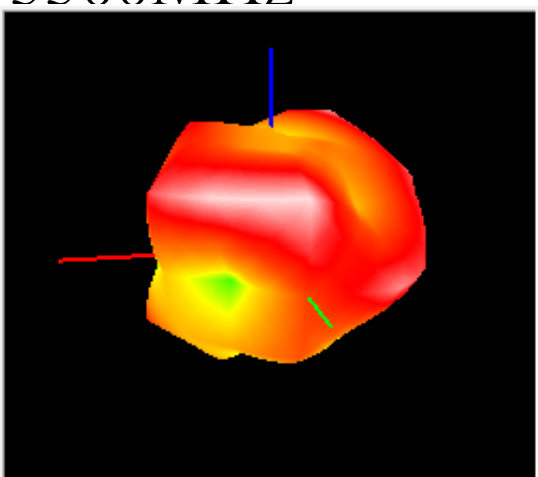
4900MHz



5300MHz

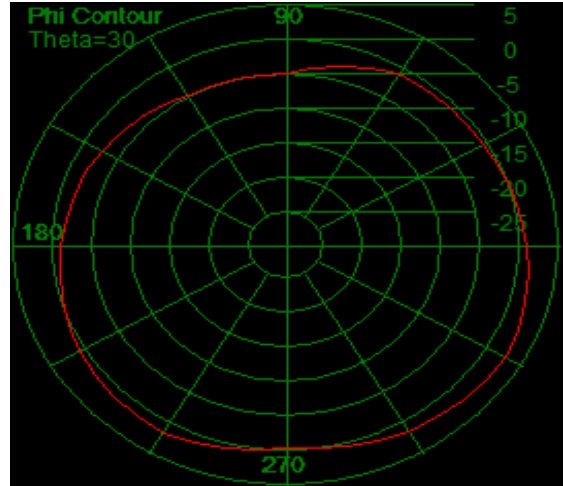
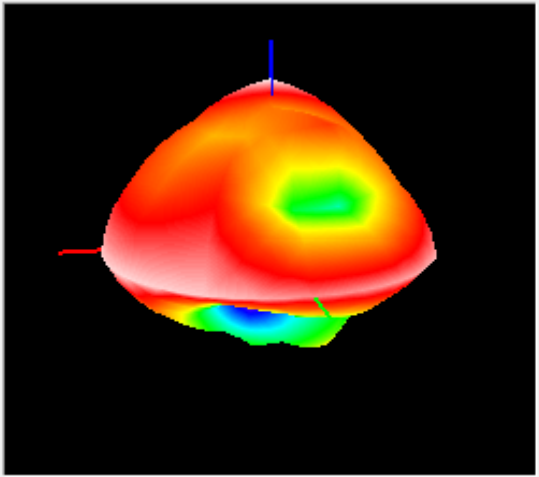


5500MHz

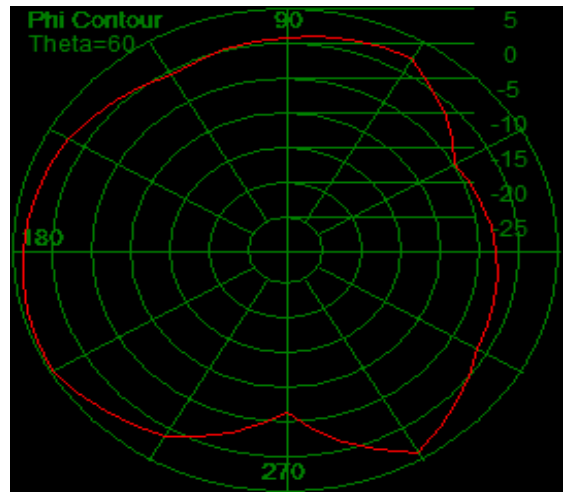
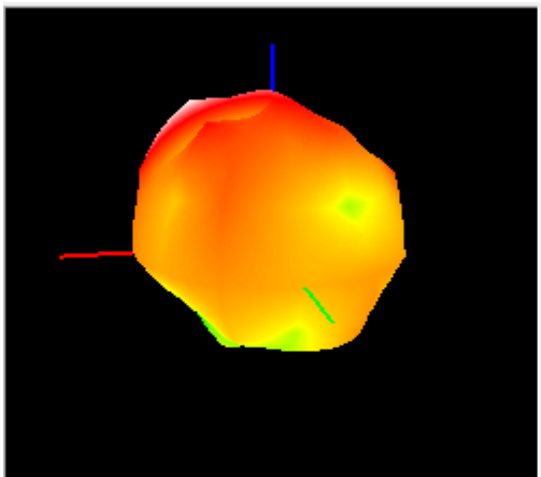


4G/5G Radiation Patterns

5800MHz

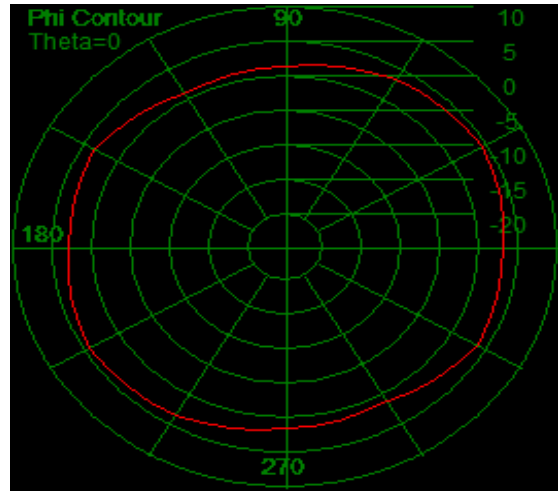
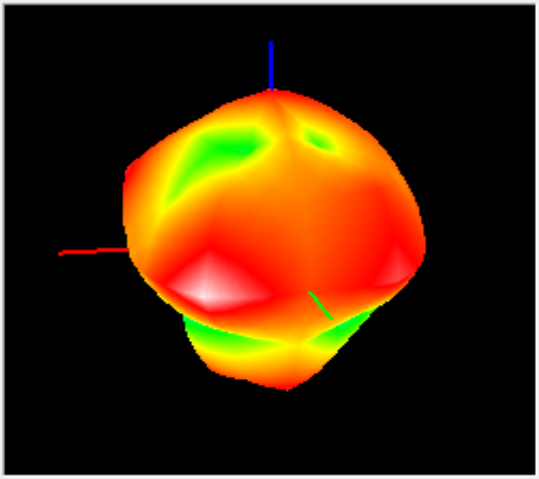


6000MHz

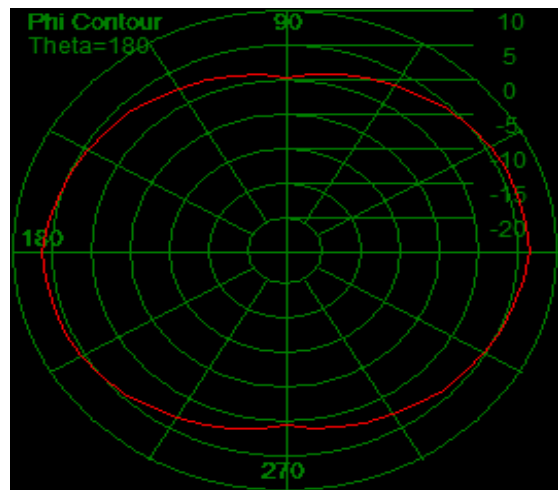
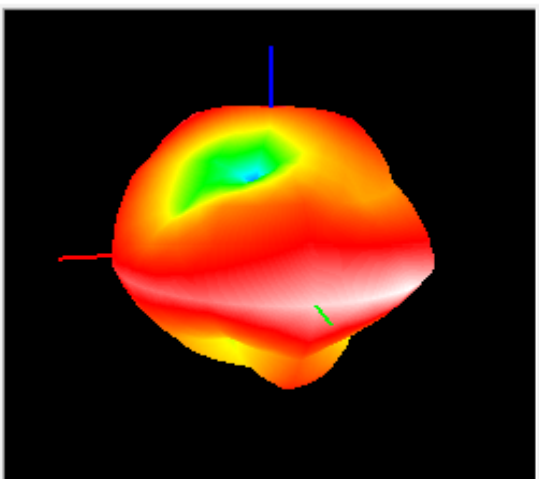


WiFi Radiation Patterns

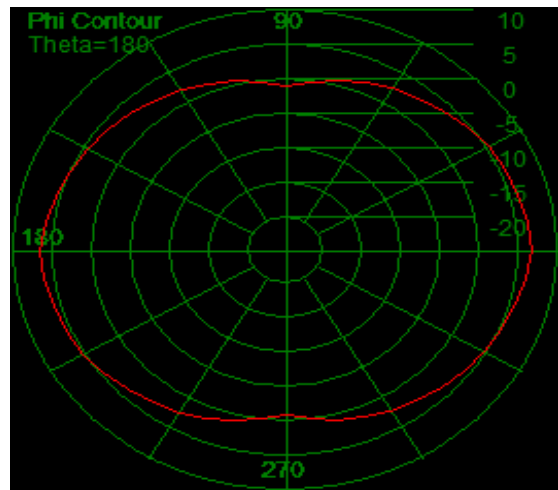
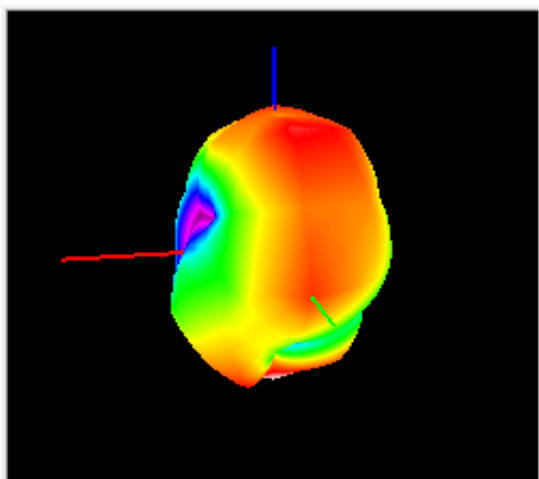
2400MHz



2450MHz



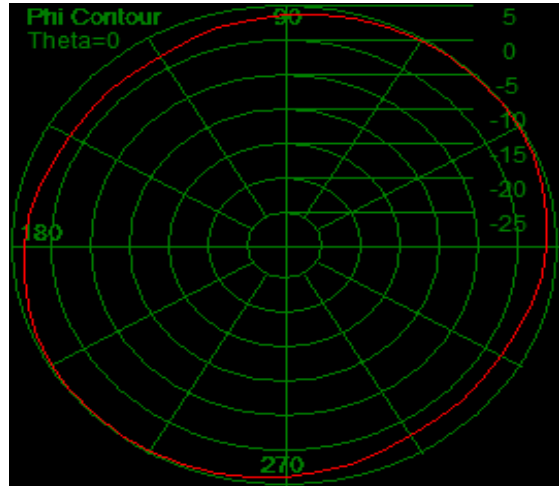
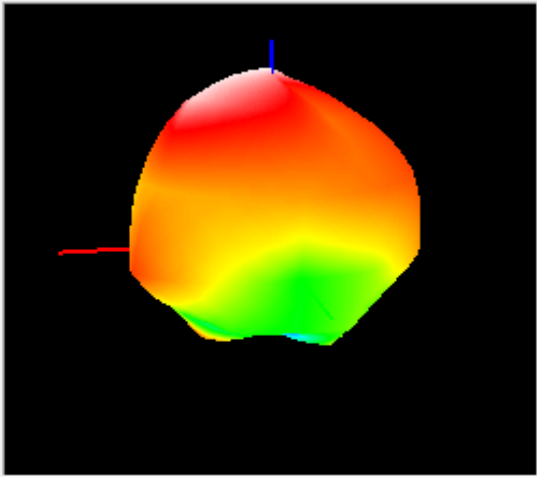
2500MHz



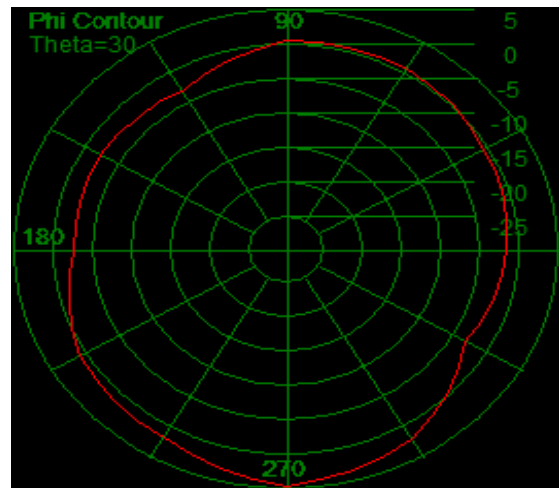
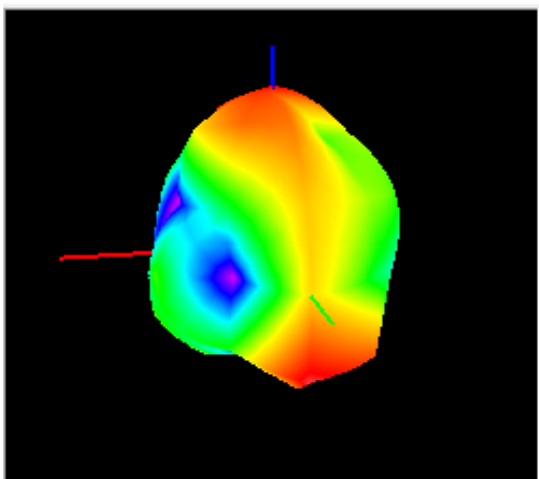


WiFi Radiation Patterns

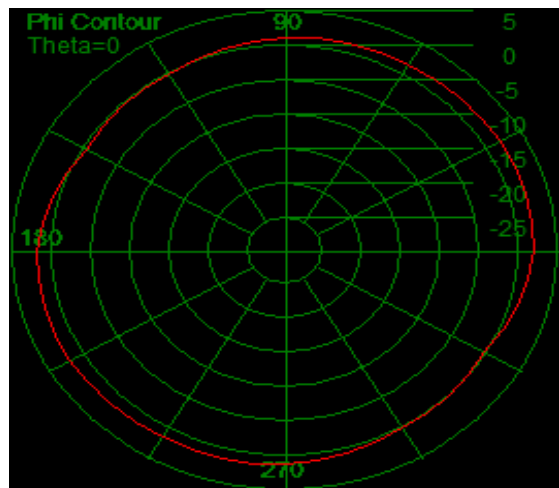
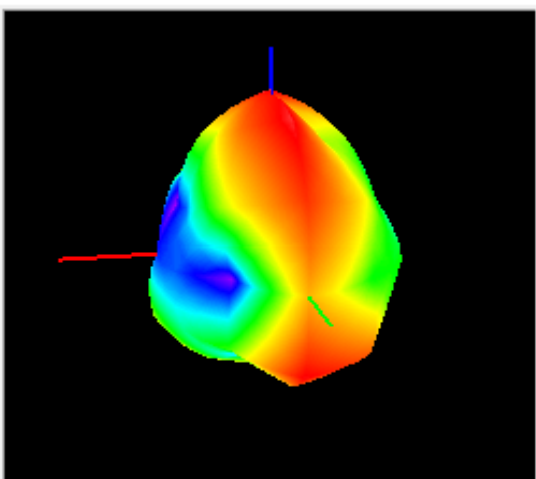
4900MHz



5150MHz

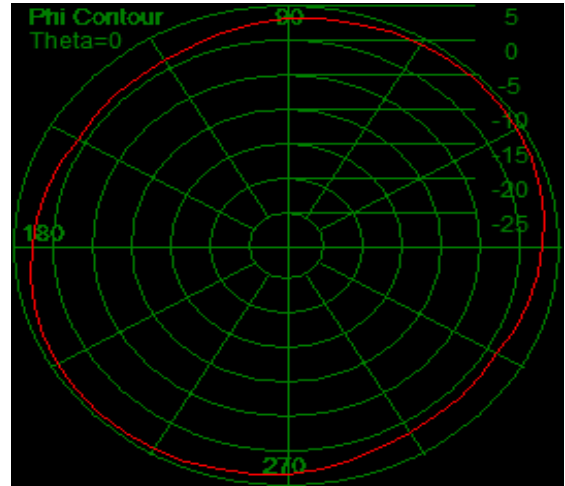
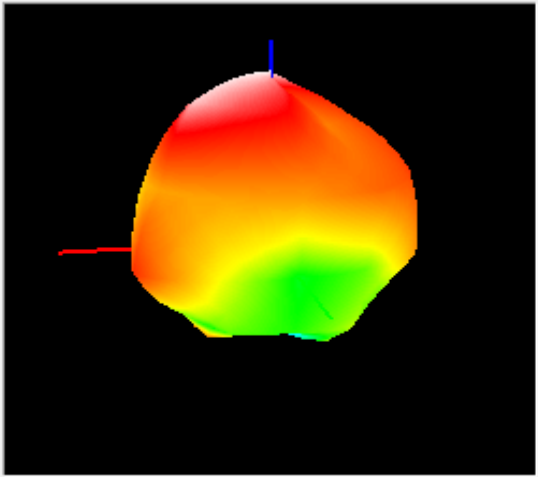


5300MHz

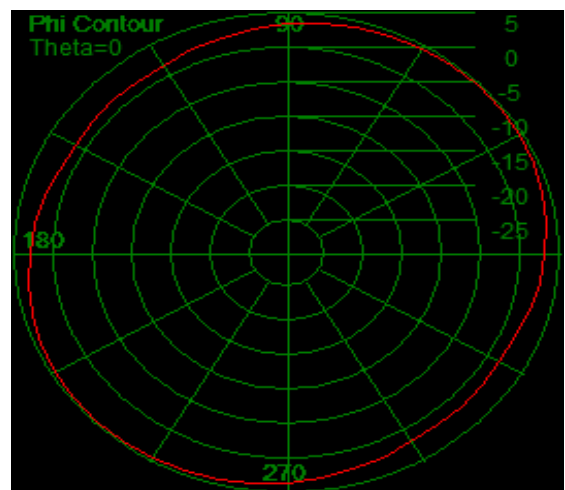
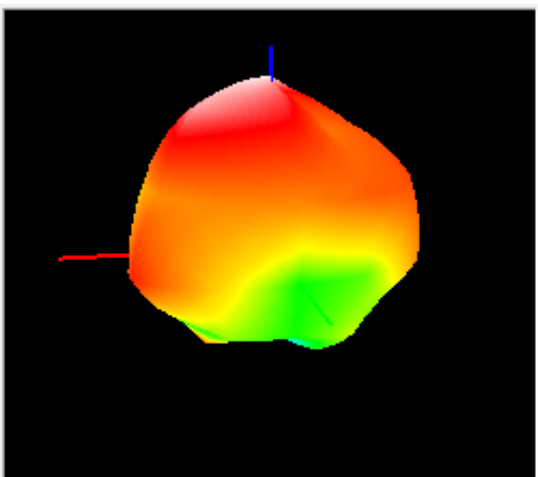


WiFi Radiation Patterns

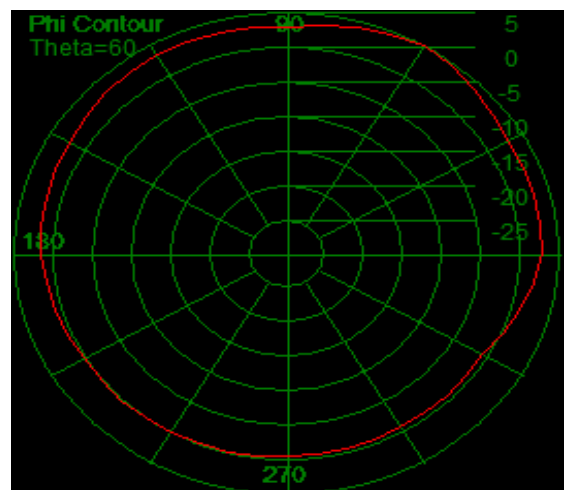
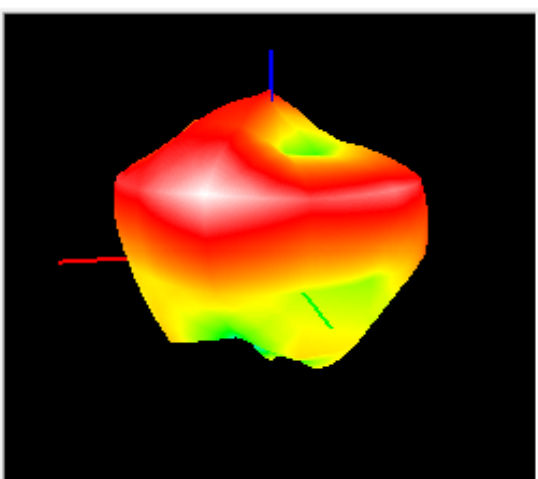
5500MHz



5850MHz



6125MHz



## WIFI Radiation Patterns

7200MHz

