

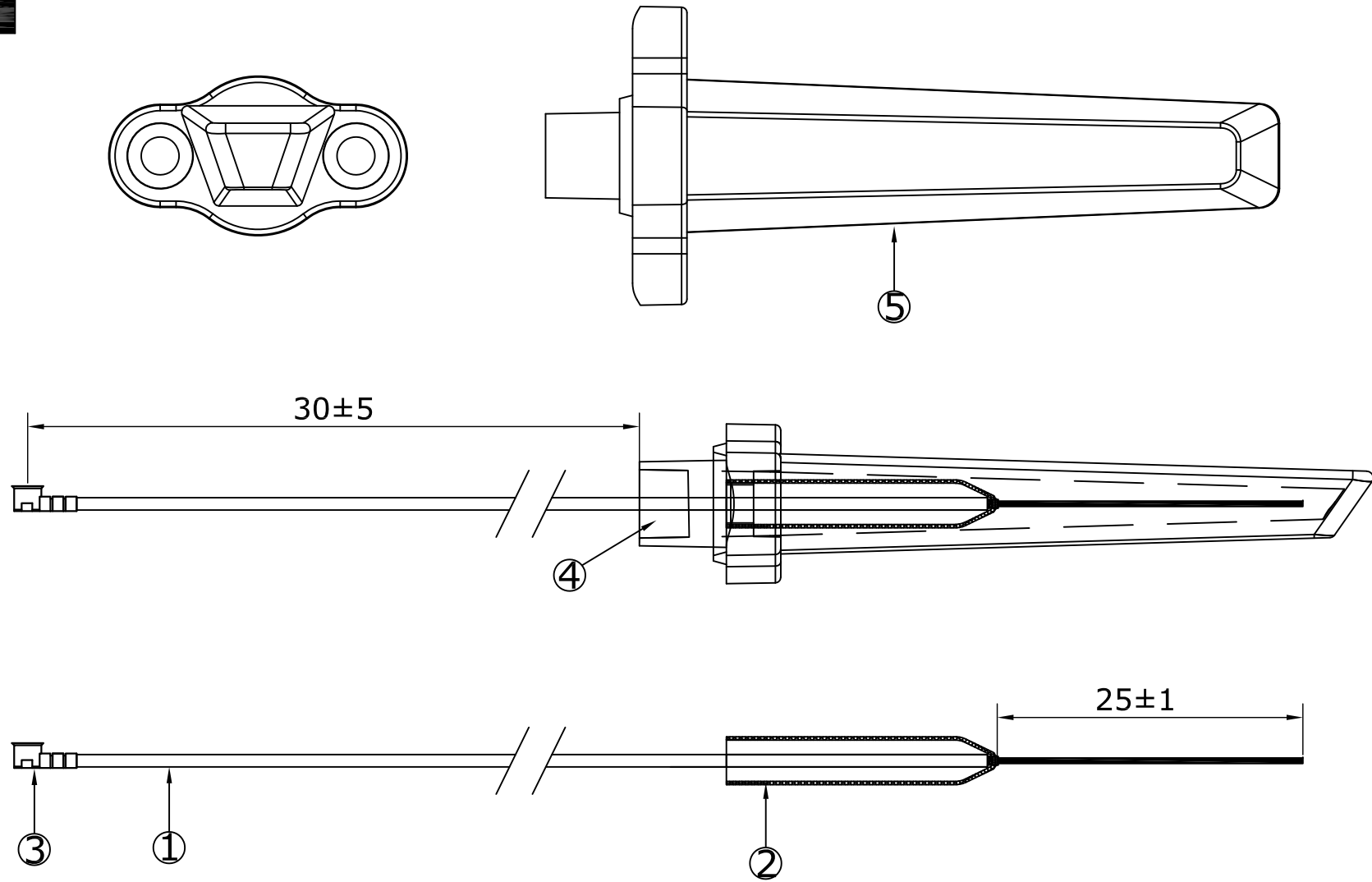
GPS® 東莞市亨松電子科技有限公司

Dongguan Hengxin Electronic Technology Co., Ltd.

Customer :	Shenzhen Bling Lighting Technologies Co., Ltd
Name :	2.4G ANT
Material No.:	HX-A310-PEX30B
Customer Material No.:	53.0501.0007
Date :	2022.07.23

TEL : 0769-81663533 FAX: 0769-89361945
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Http://www.nogps.com

RoHS
Compatible



5	HX-AN93-01	Antenna Body	PC Black	
4	HX-EVA56-01	EVA	Ø6*5MM	
3	HX-PEX-01	Connector	Compatible 1	1PCS
2	HX-TG2525-01	Metal	OD4.5*L24.5*OD1.1mm	1PCS
1	HX-CB-113B	Coaxial Cable	SHOWA-O.D. 1.13mm Black	1PCS
No.	Part Number	Name	Material	Q'ty

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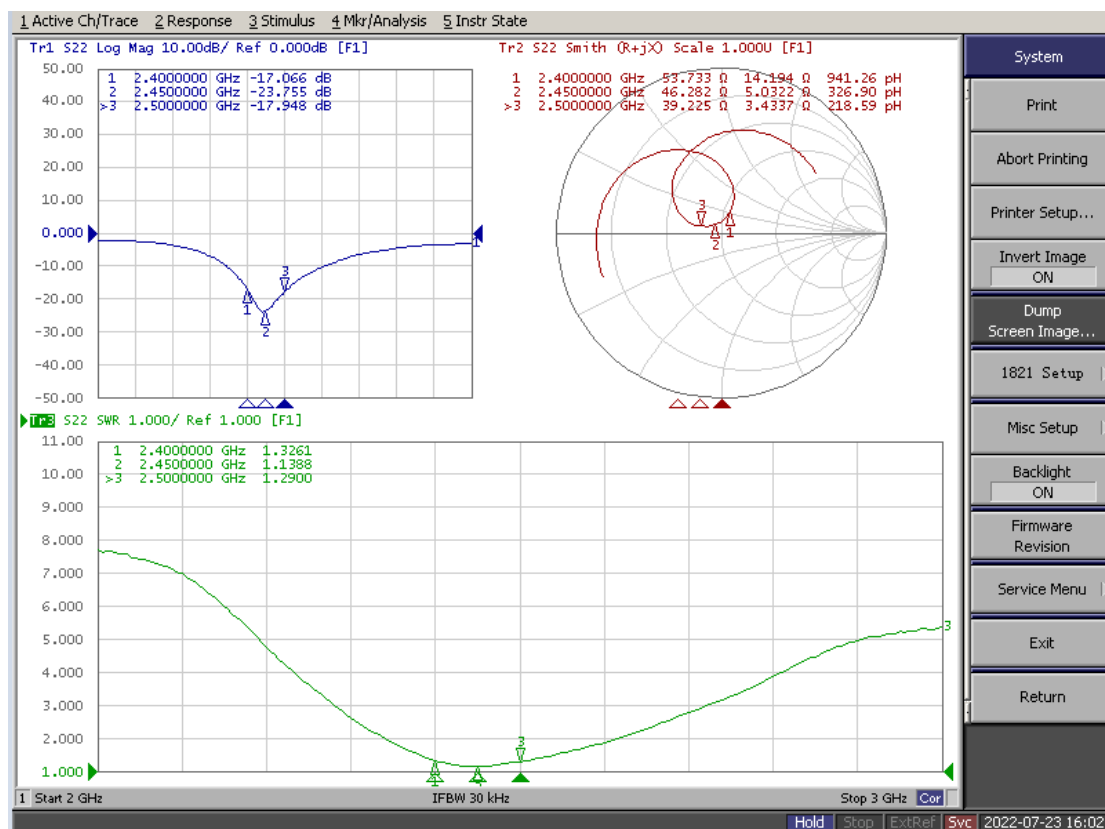
1. Reliability Testing

Test Item	Procedure	Requirement
1. Visual inspection and Dimension Check	Applicable methods using x5 magnification	follow specification
2. Rapid Changing of Temperature	-40°C (30minutes) to 80°C (30minutes); 24 cycles	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < ±5%
3. Damp Heat	24 hours at 60°C; 90 ~ 95% RH	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < ±5%
4. Endurance	24 hours at 80°C	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < ±5%
5. Connector Pull Strength Test	>= 1.0 Kg	Hold 2~3S: 1. no visible damage 2. bandwidth tolerance < ±5%

2. Specification

A. Electrical Characteristics	
S.W.R.(Tested in PC)	≤ 2.0 @ 2400~2500 MHz
Typical Antenna Gain	2.97dBi @ 2450 MHz
Impedance	50 Ohm
B. Material	
Material of Radiator	CU
Cable Length	30mm
Connector Type	I-PEX / Mini
C. Environmental	
Operation Temperature	- 40 °C ~ + 85 °C
Storage Temperature	- 40 °C ~ + 85 °C

3. S.W.R. Testing Result



4. Antenna Radiation Pattern

Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 8 x 4 x 4 m

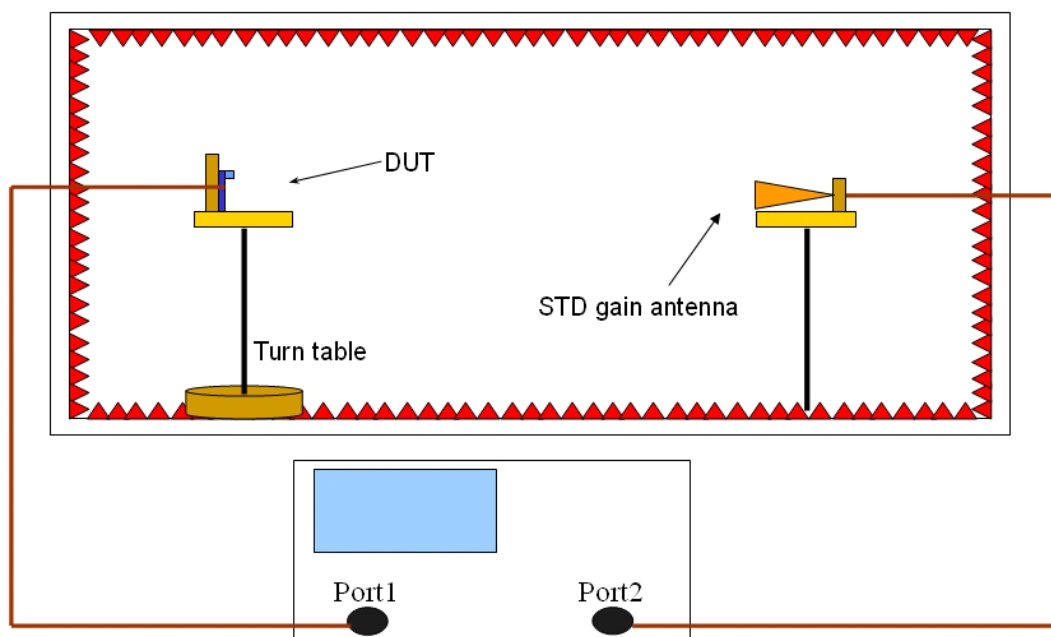
Quiet Zone: 600mm @1 GHz

Isolation: >100dB @ 1 MHz ~ 10 GHz

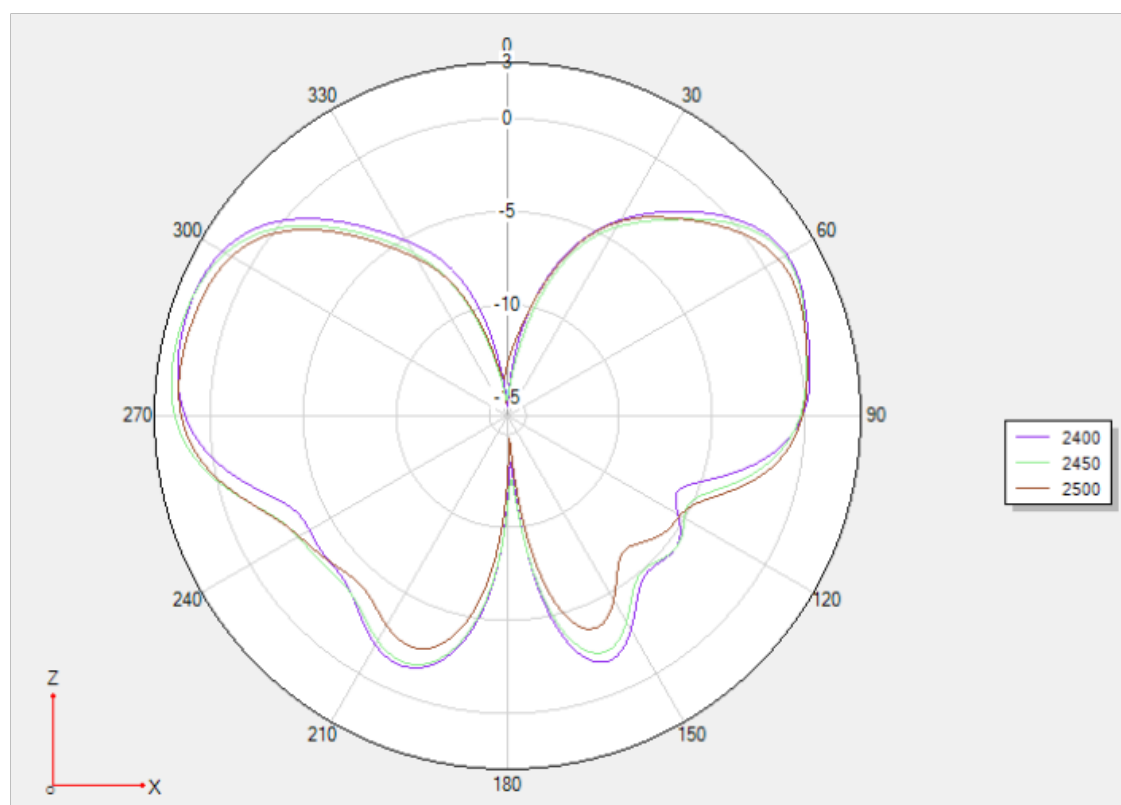
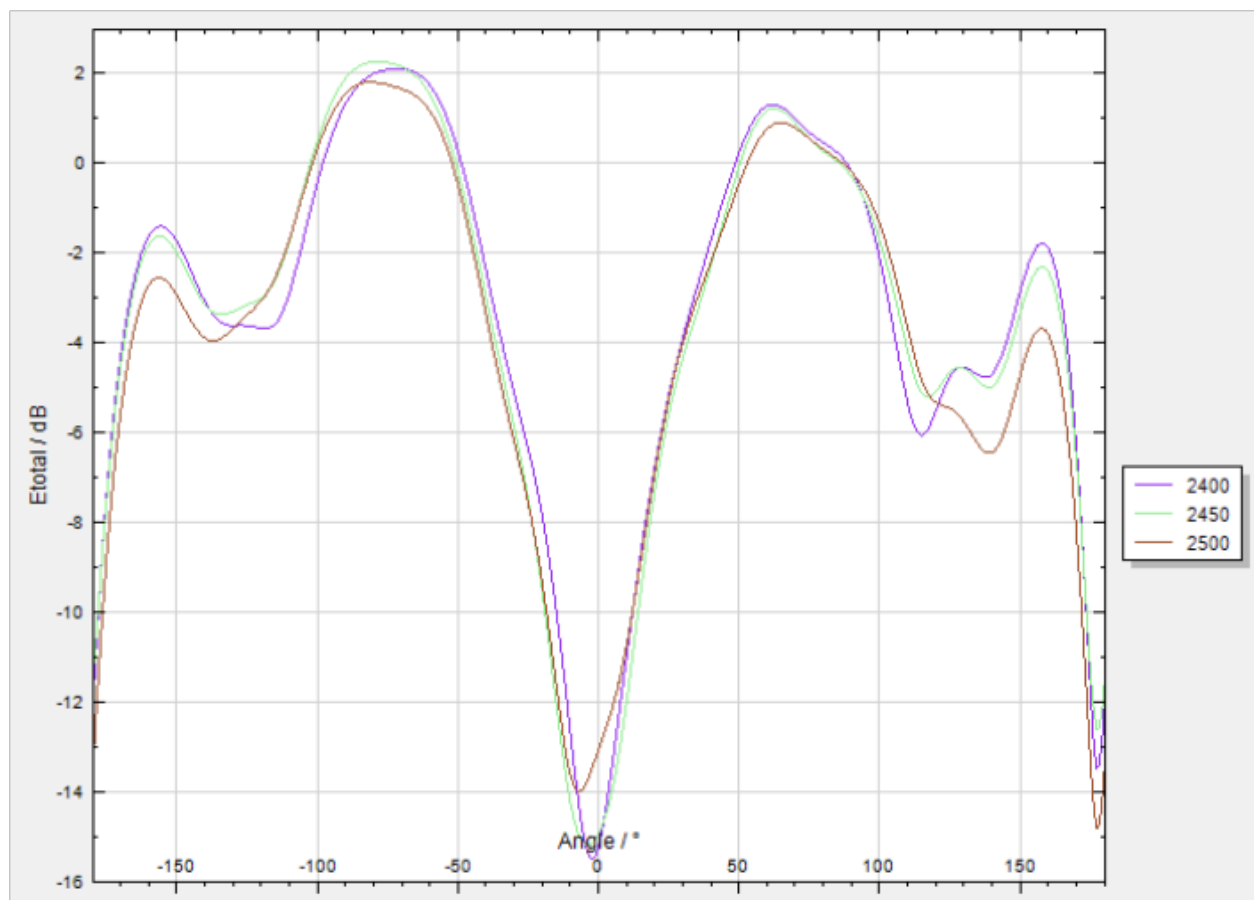
Testing Equipment: Agilent 5071B

Received Antenna: 0.7 ~ 6.0 GHz for Gain Calibration

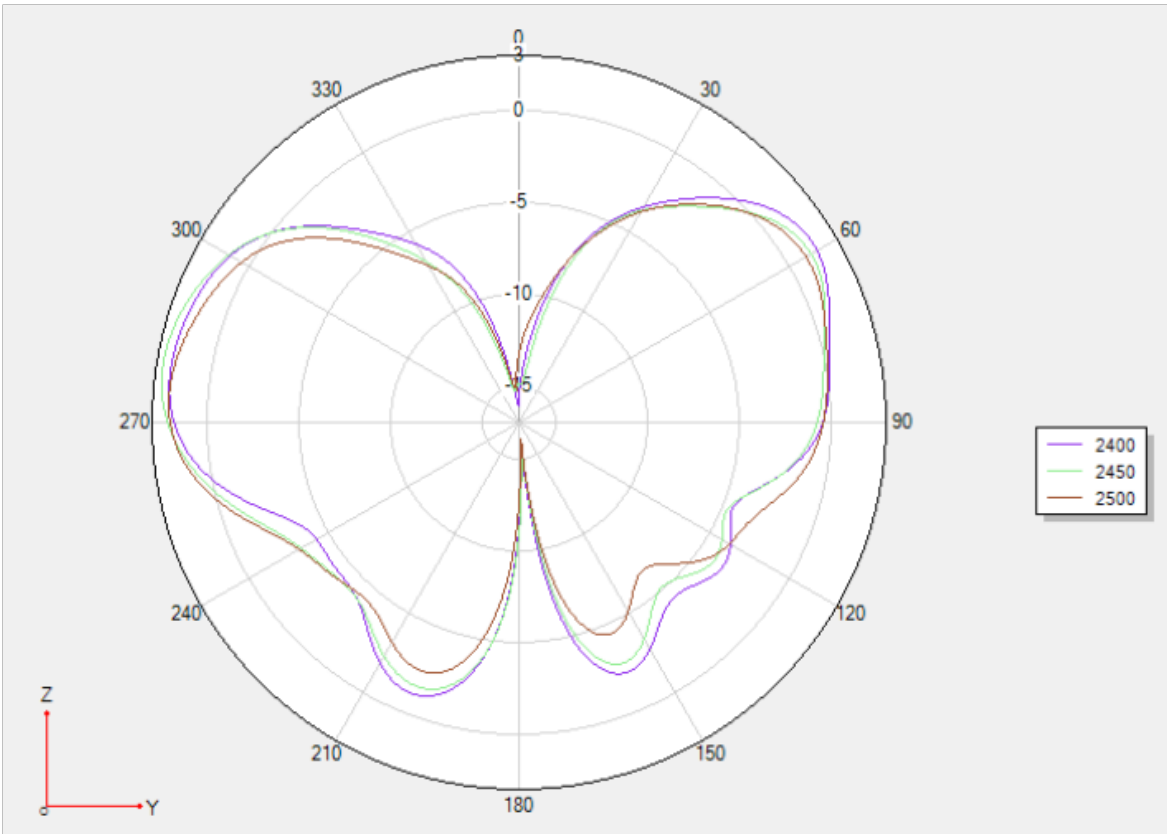
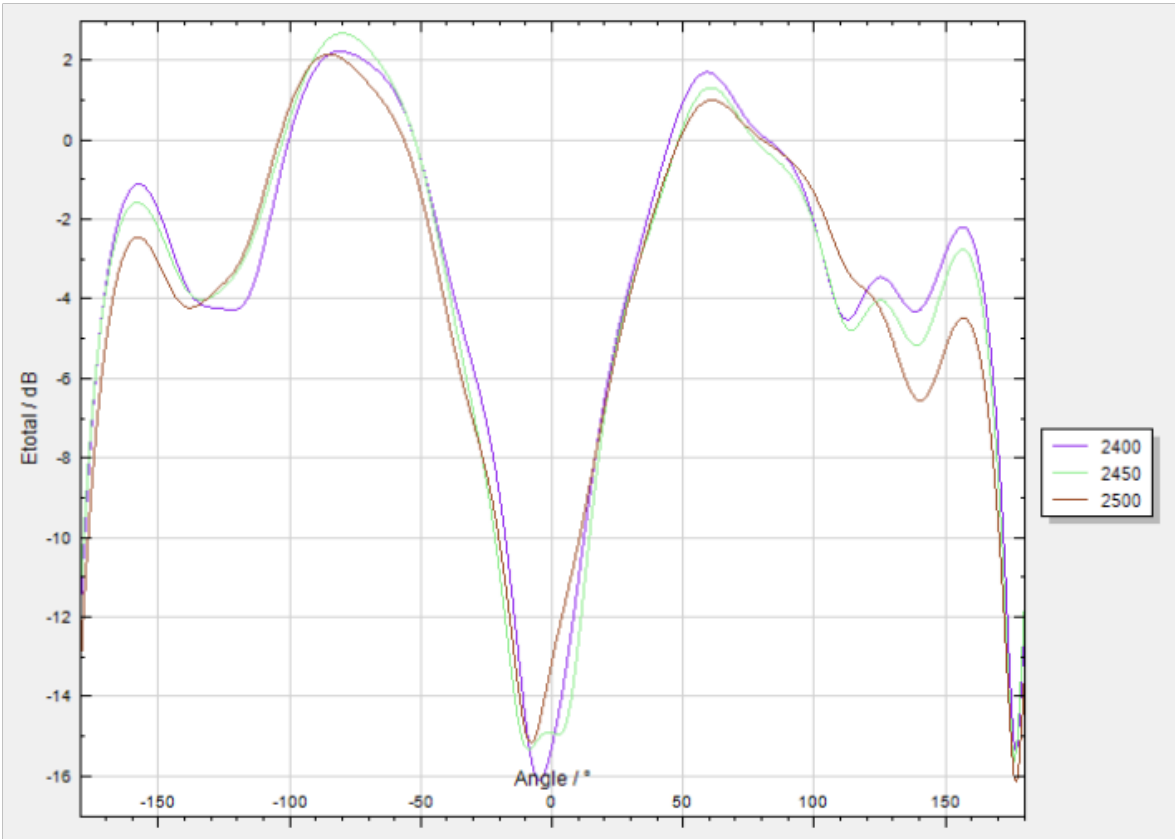
Double Ridged Horn Antenna



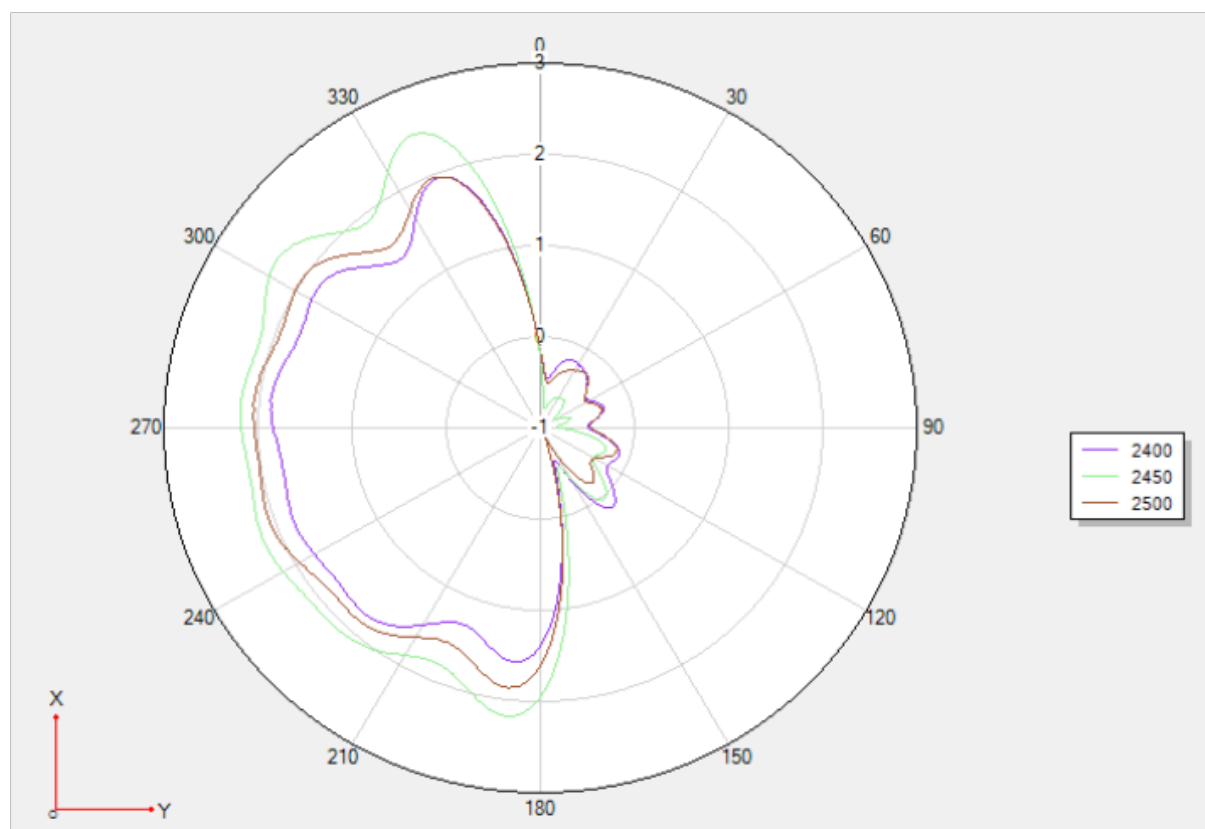
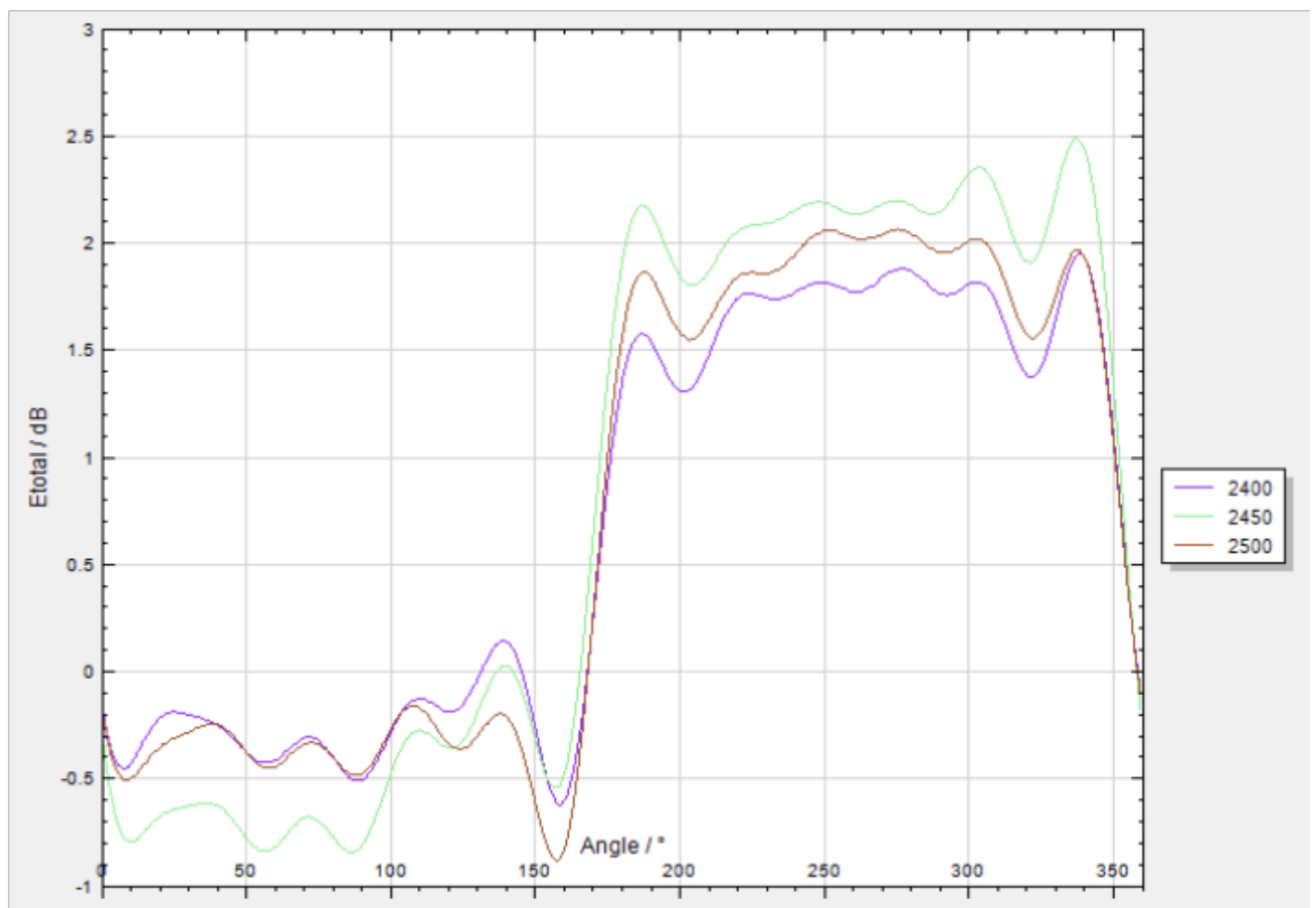
Phi 0 2D



Phi 90 2D

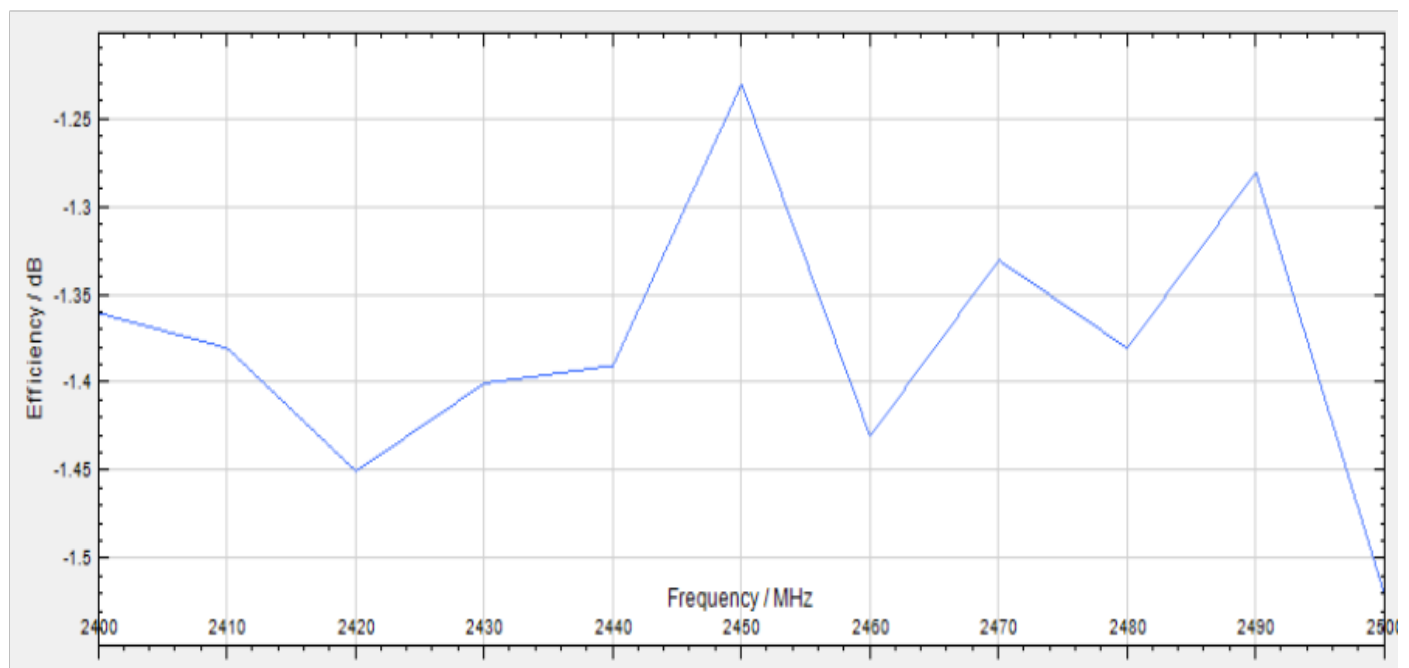


Theta 90 2D



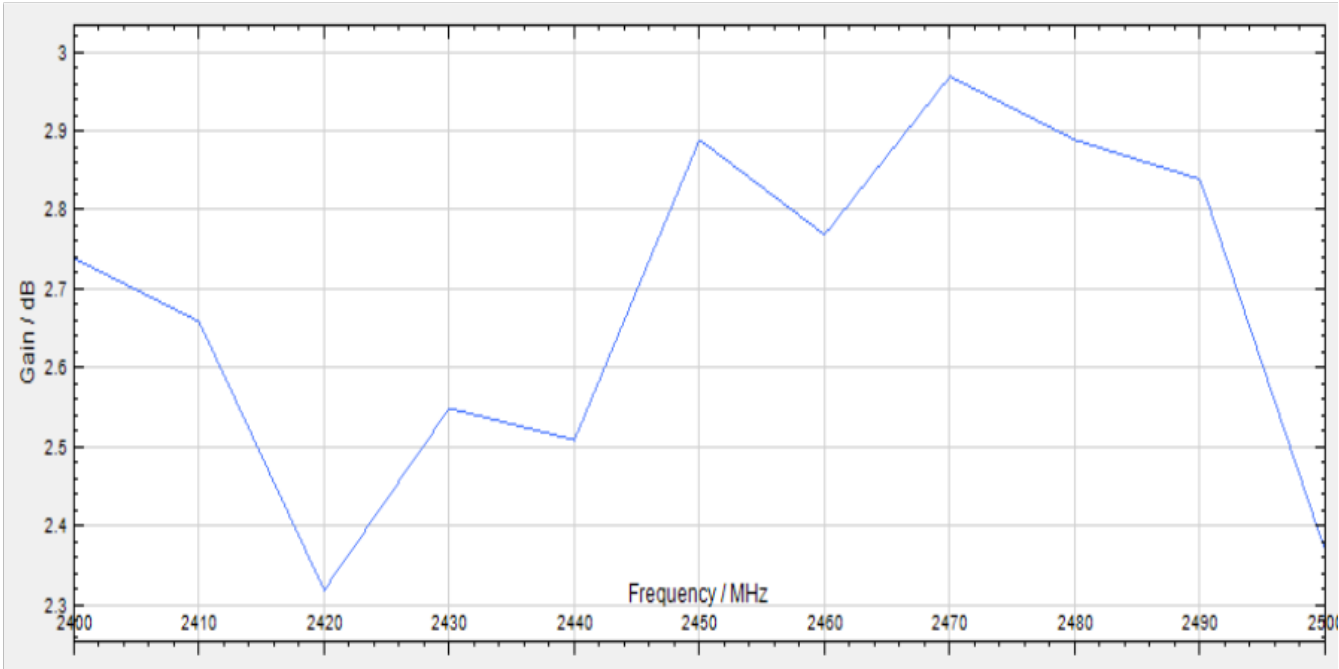
Efficiency

1	Frequency / MHz	Efficiency / dB	Efficiency / %
2	2400	-1.36	73.11
3	2410	-1.38	72.78
4	2420	-1.45	71.61
5	2430	-1.4	72.44
6	2440	-1.39	72.61
7	2450	-1.23	75.34
8	2460	-1.43	71.94
9	2470	-1.33	73.62
10	2480	-1.38	72.78
11	2490	-1.28	74.47
12	2500	-1.52	70.47

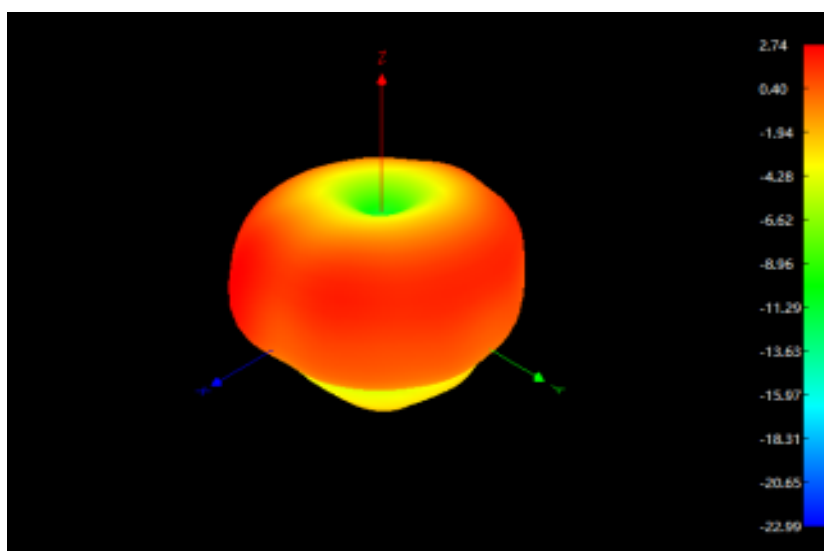
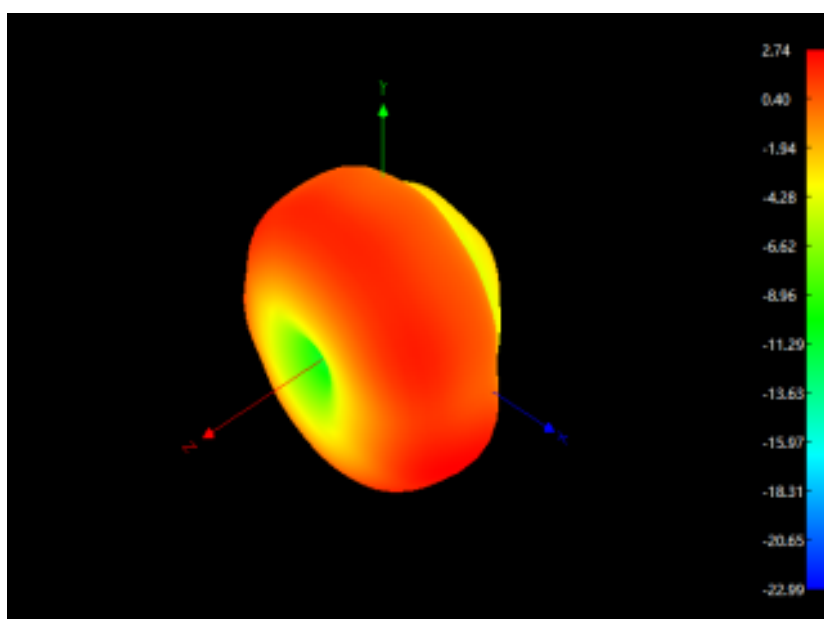
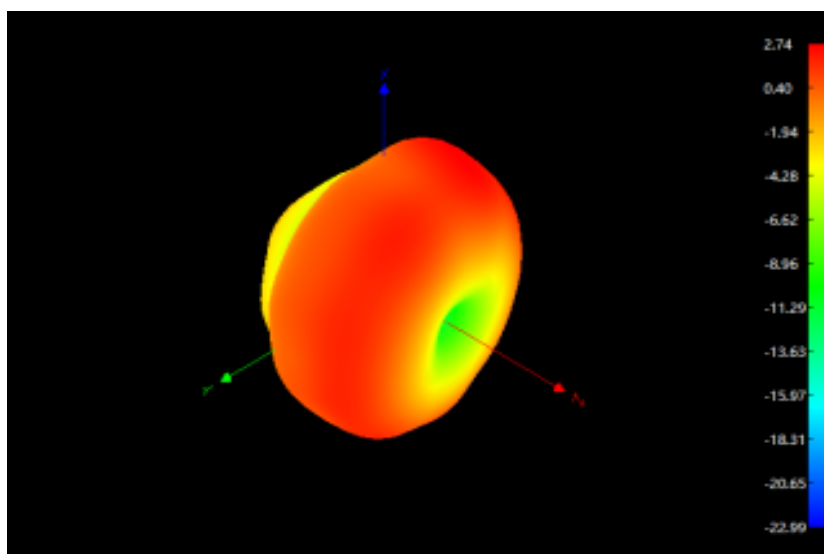


Gain

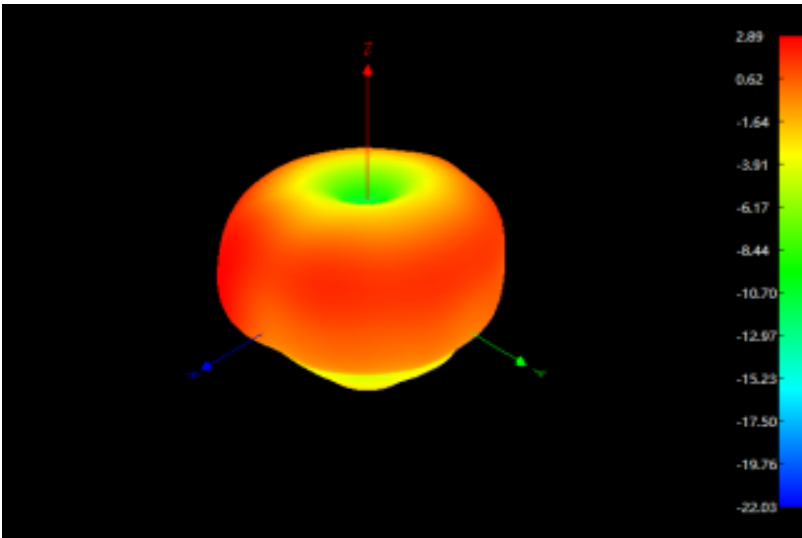
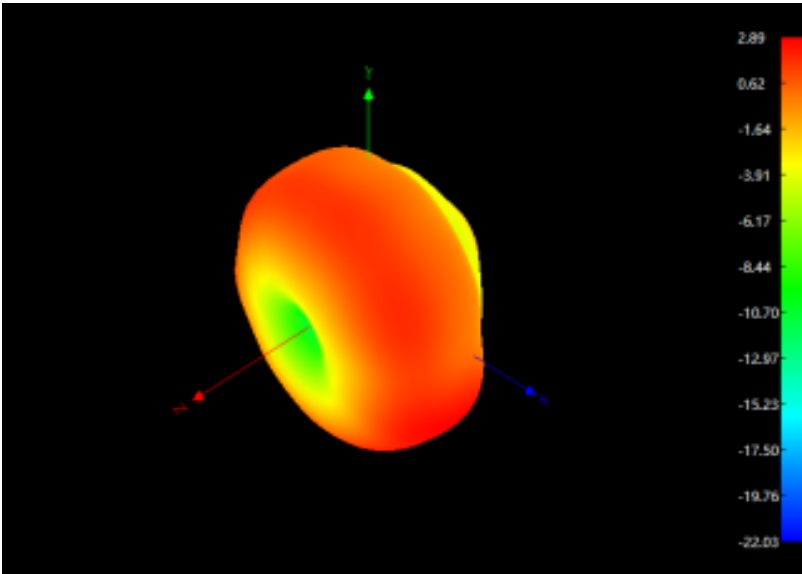
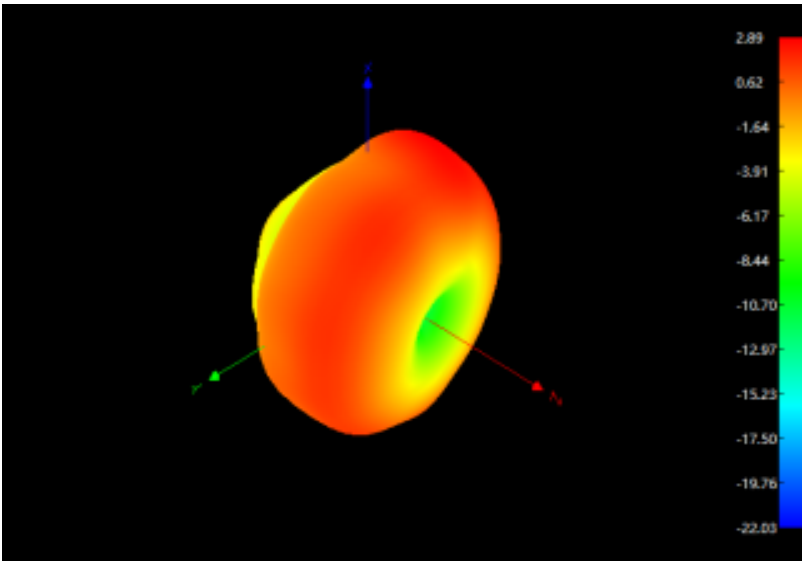
1	Frequency / MHz	Gain/ dBi
2	2400	2.74
3	2410	2.66
4	2420	2.32
5	2430	2.55
6	2440	2.51
7	2450	2.89
8	2460	2.77
9	2470	2.97
10	2480	2.89
11	2490	2.84
12	2500	2.37



3D 2400



3D 2450



3D 2500

