蓝一通讯科技有限公司
LANYI COMMUNICATION TECHNOLOGY CO., LTD

产 品 规 格 书

PRODUCT SPECIFICATION SHEET

客户名称 Customer Name: _____

品名规格Product Name: 2.4GHz Antenna

零件编号Part No.: 205-0004

样品数量 Quantity: _____

送样日期 Approve Date: 2025-4-25

版本 Version: V0

工程确认:

核准	工程	制作	签章
Approval	Quality	Engineer	

客户确认:

核准	研发	品质	签章
确认结果:	☐ 合格	☐ 不合格	☐ 其它

1.0 实物图(Physical drawing)

2.0 Electrical Properties

1.1 中心频率（Center Frequency）…… 2400-2500MHz
1.2 馈电阻抗（impedance）…… 50ohm
1.3 电压驻波比（VSWR）…… ≤ 2.0
1.4 最大增益(Peak Gain)…… ≥2.0dBi Peak Gain
1.5 极化（Polarization）…… Linear
1.6 天线接口（Interface）…… SMA male head
1.7 天线尺寸（Size）…… 109mm×10mm

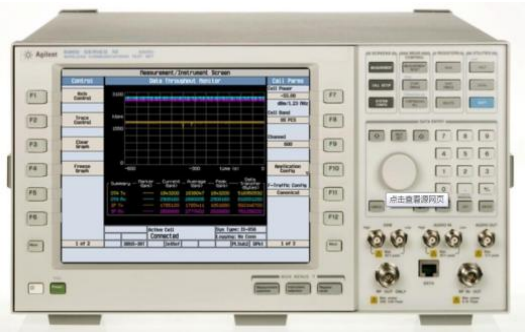
Mechanical Specification:

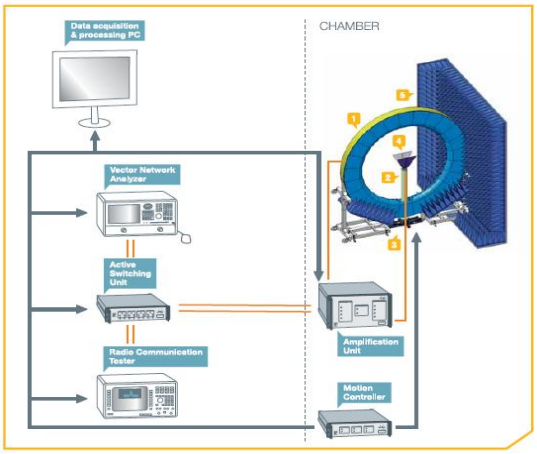
2.0 工作温度（Working Temperature）…… -40℃- +80℃
2.2 湿度Humidity……Non-condensing 65° C 95% RH

3.0测试设备（Test equipment）

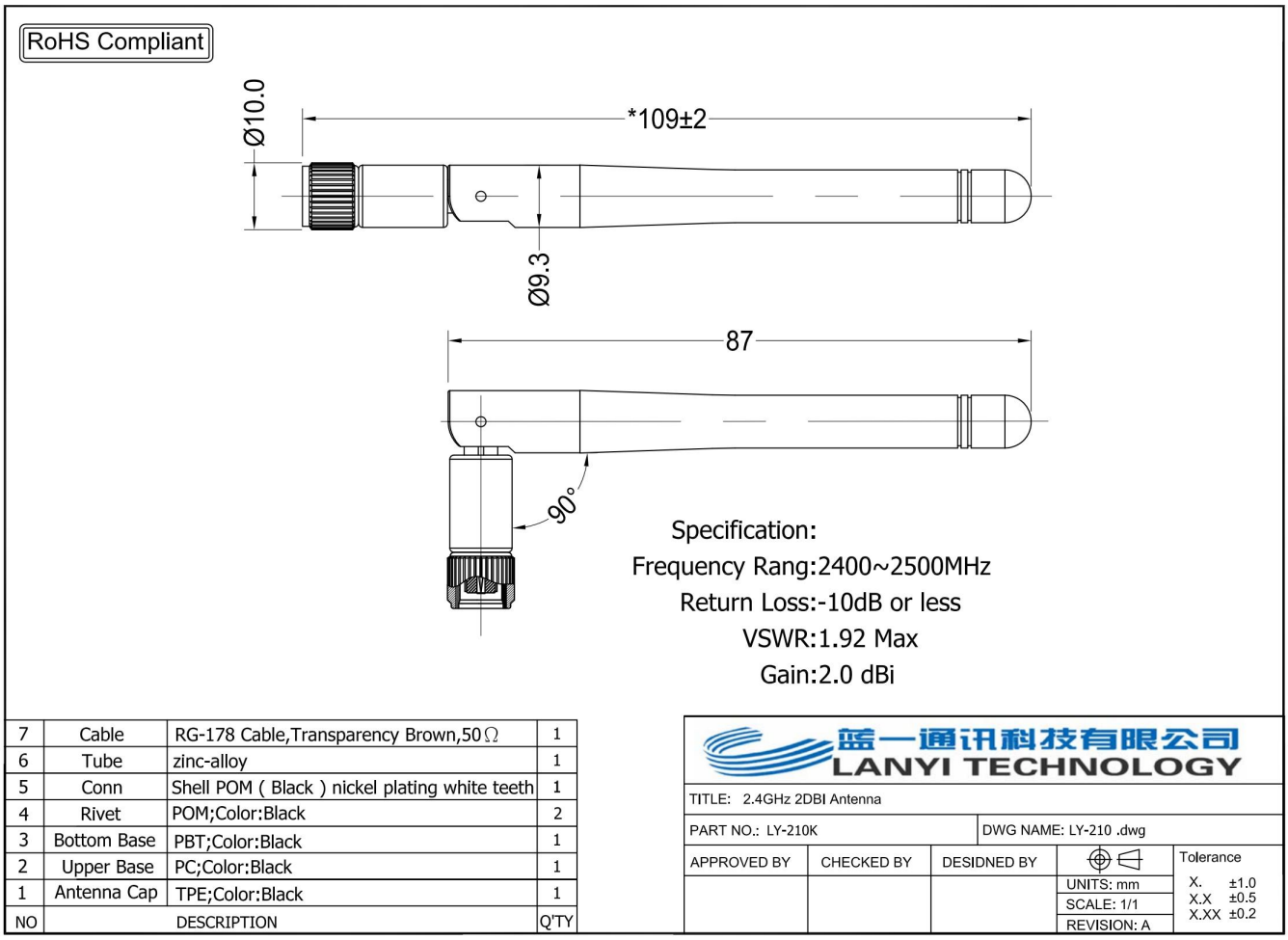
我司产品的测试环境为 SATIMO SG24 3D 暗室，

所用设备为安捷伦 E5071C 网络分析仪和 8960 综测仪。





4.0图纸 Mechanical Drawing (Unit: mm)



NO	DESCRIPTION		Q'TY
7	Cable	RG-178 Cable,Transparency Brown,50Ω	1
6	Tube	zinc-alloy	1
5	Conn	Shell POM (Black) nickel plating white teeth	1
4	Rivet	POM;Color:Black	2
3	Bottom Base	PBT;Color:Black	1
2	Upper Base	PC;Color:Black	1
1	Antenna Cap	TPE;Color:Black	1

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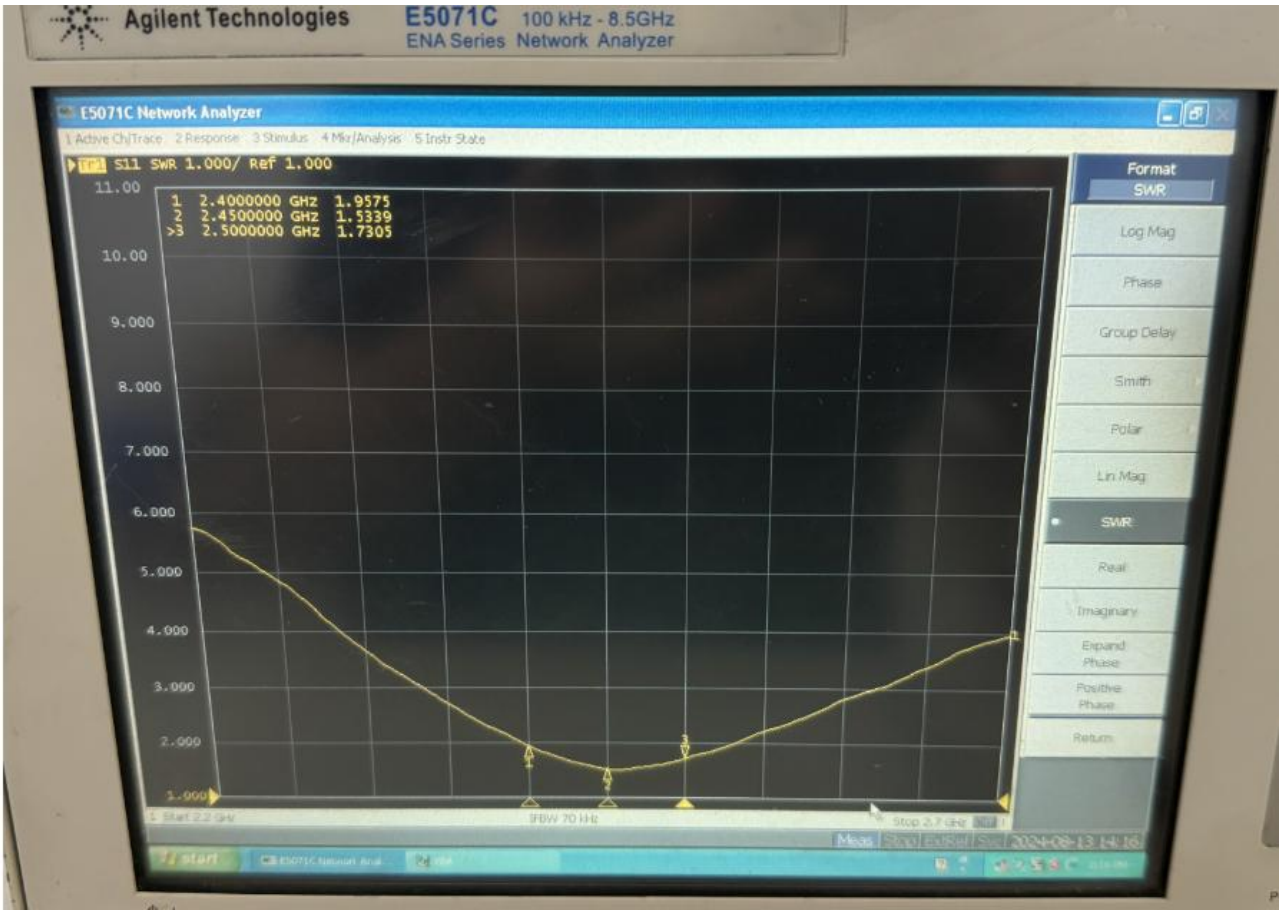
TITLE: 2.4GHz 2DBI Antenna			
PART NO.: LY-210K		DWG NAME: LY-210 .dwg	
APPROVED BY	CHECKED BY	DESIDNED BY	UNITS: mm SCALE: 1/1 REVISION: A

Tolerance
X. ±1.0
X.X ±0.5
X.XX ±0.2

5.0 Return Loss, SWR,

Antenna S11 Properties Typical SWR, Impedance, measured on the test fixture



6.0 Efficiency & Gain

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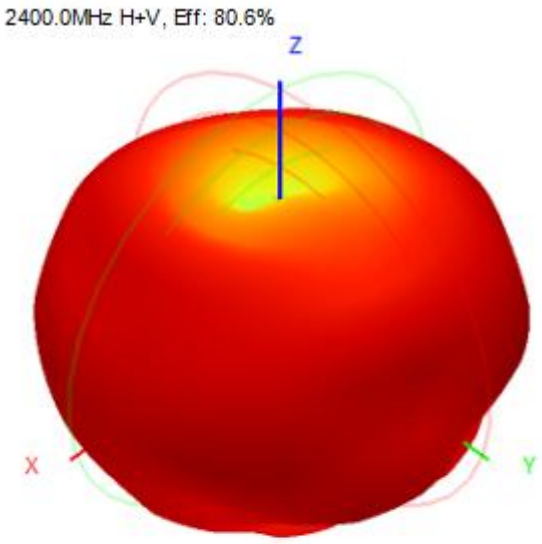
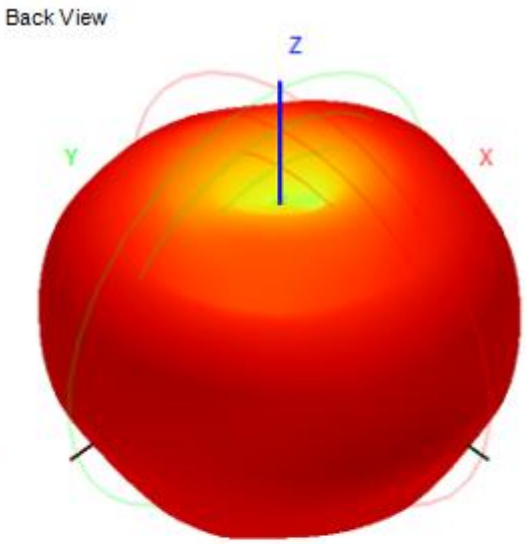
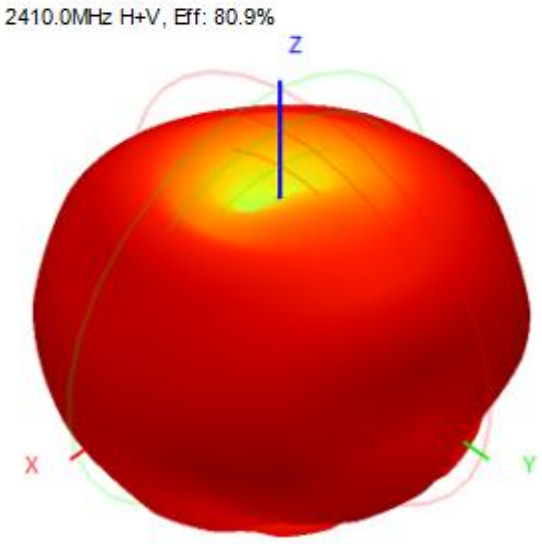
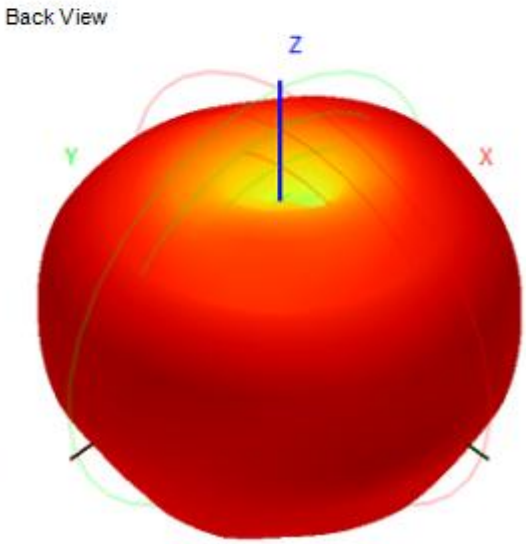
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-0.94	-0.92	-0.99	-1.07	-1.03	-0.95	-0.91	-0.95	-1.04	-1.06	-1.06
Gain (dBi)	2.67	2.51	2.12	1.75	1.95	2.09	2.11	1.94	1.68	1.78	1.91
Efficiency (%)	80.57	80.95	79.57	78.20	78.84	80.28	81.14	80.41	78.63	78.29	78.38
Directivity (dB)	3.61	3.43	3.12	2.82	2.99	3.05	3.02	2.89	2.73	2.85	2.97
Peak Gain Position (Theta)	75.00	75.00	75.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Peak Gain Position (Phi)	105.00	105.00	105.00	60.00	60.00	60.00	75.00	60.00	75.00	75.00	75.00
Efficiency ThetaPol (%)	76.27	76.92	75.83	74.61	75.45	77.06	78.13	77.62	76.03	75.81	75.98
Efficiency PhiPol (%)	4.30	4.03	3.74	3.58	3.39	3.22	3.01	2.79	2.60	2.48	2.40
Upper Hem. Efficiency (%)	47.82	49.29	48.46	46.39	45.18	45.55	46.80	46.99	45.22	43.49	43.00
Lower Hem. Efficiency (%)	32.74	31.66	31.12	31.81	33.66	34.72	34.34	33.42	33.41	34.80	35.38

7.0RadiationPattern

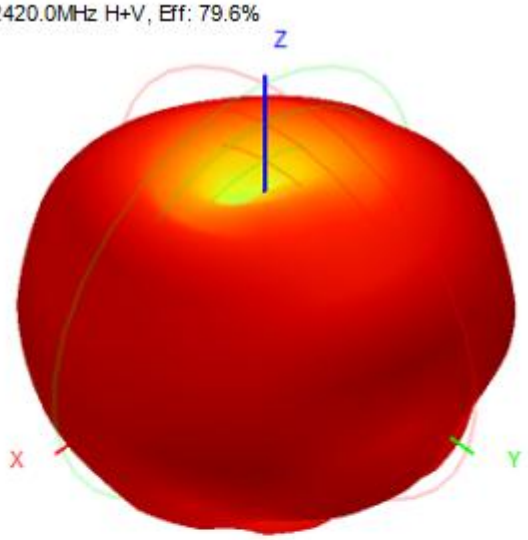




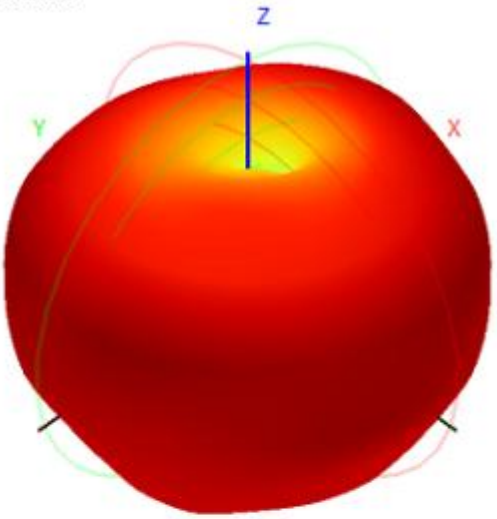




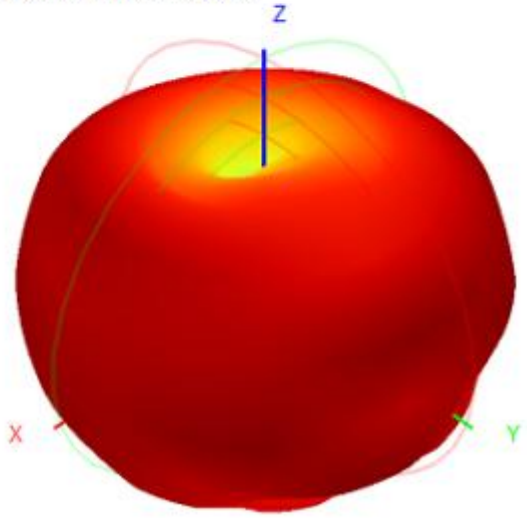
2420.0MHz H+V, Eff: 79.6%



Back View



2430.0MHz H+V, Eff: 78.2%



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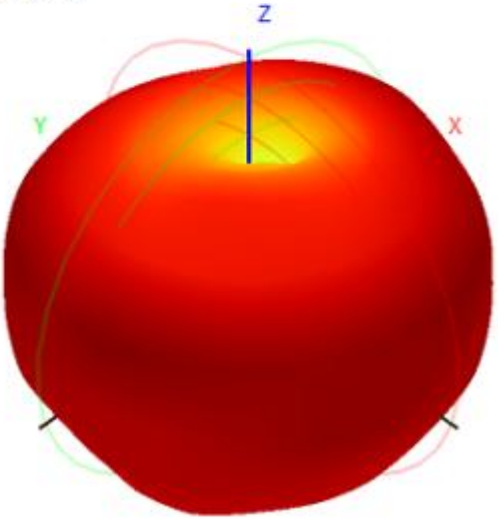
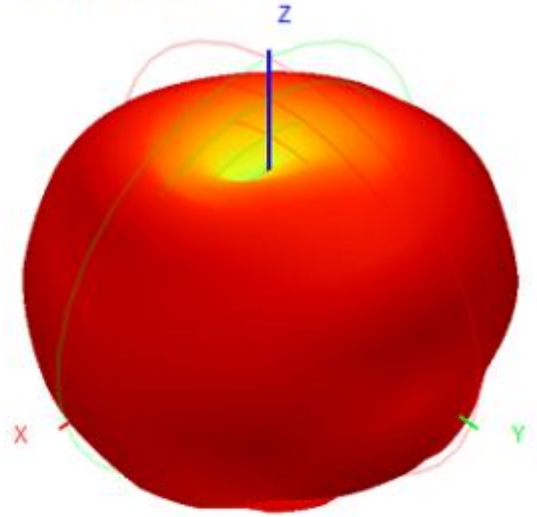


2440.0MHz H+V, Eff: 78.8%



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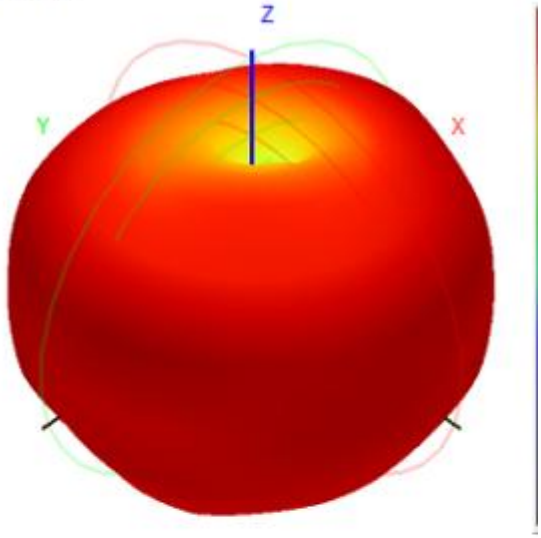
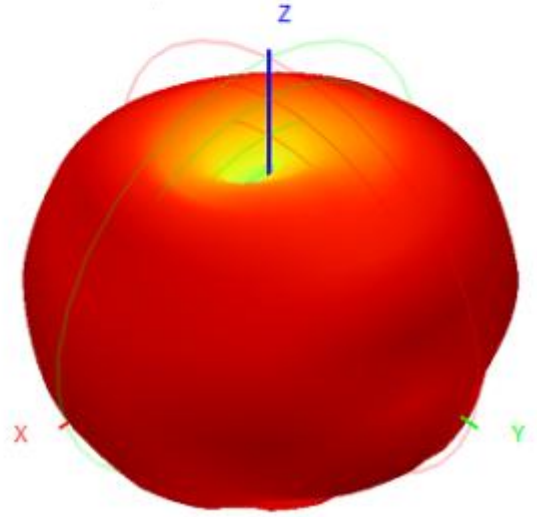


2450.0MHz H+V, Eff: 80.3%



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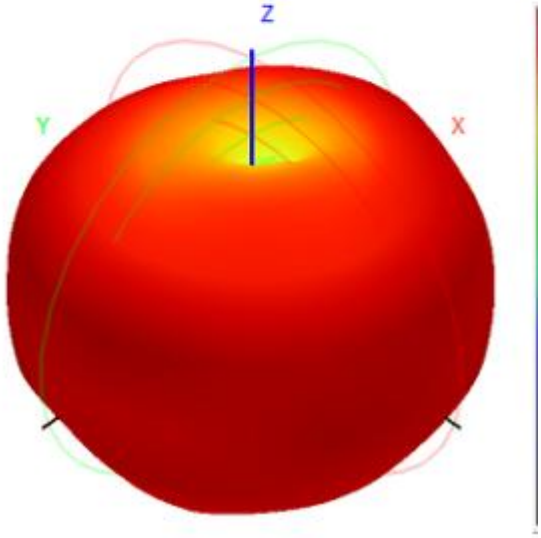
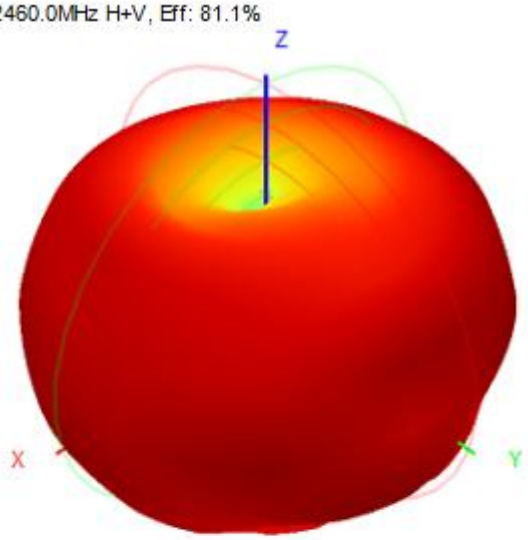


2460.0MHz H+V, Eff: 81.1%



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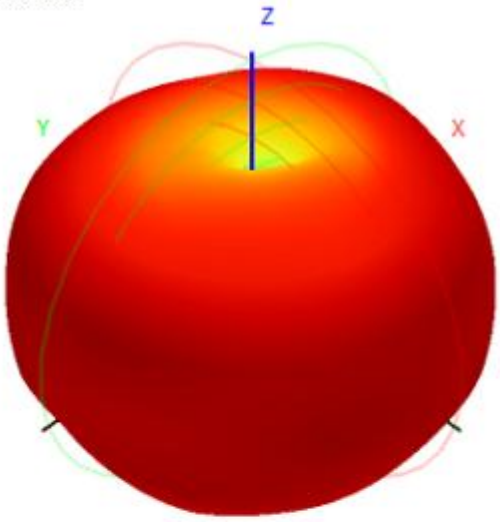
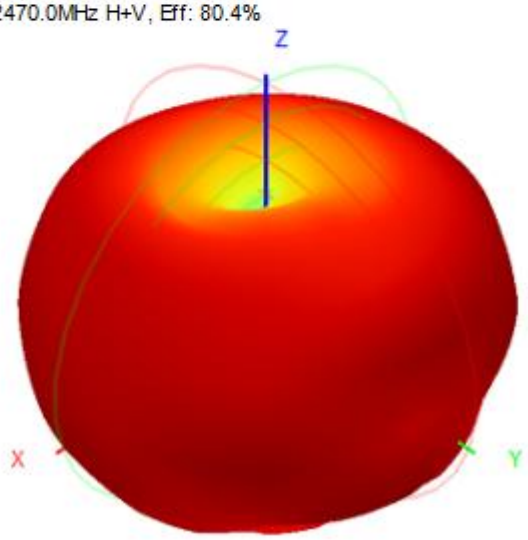


2470.0MHz H+V, Eff: 80.4%



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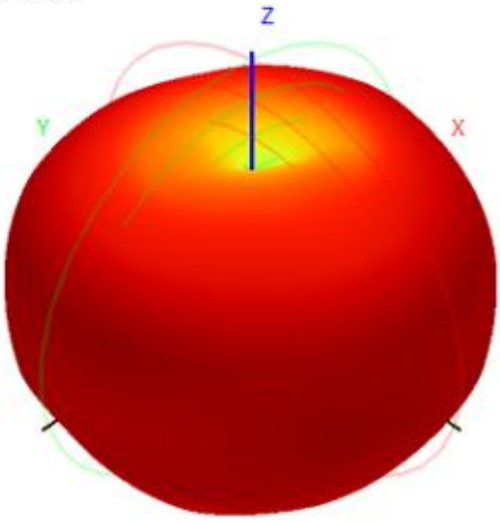
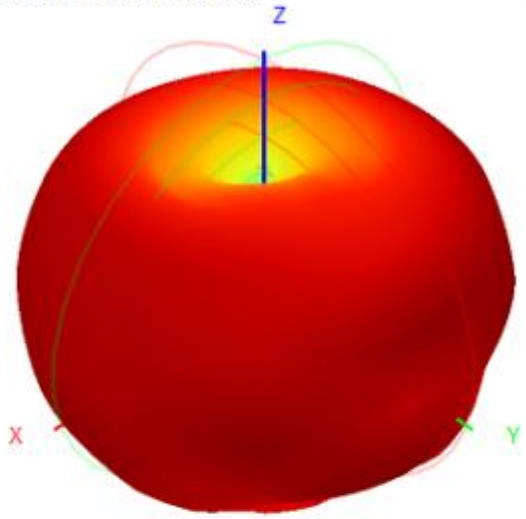


2480.0MHz H+V, Eff: 78.6%



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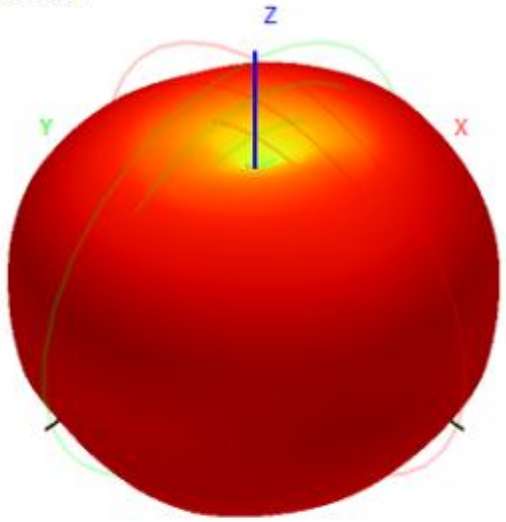
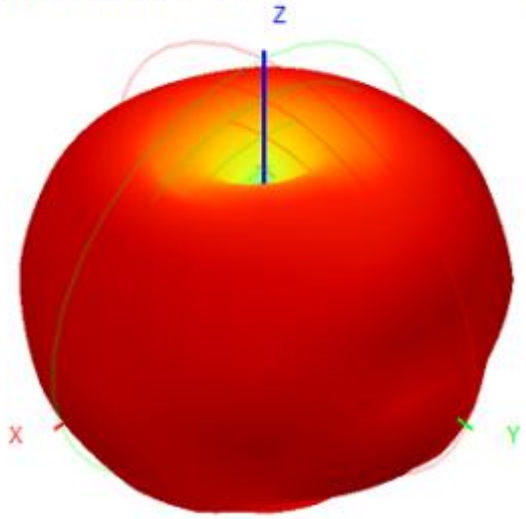
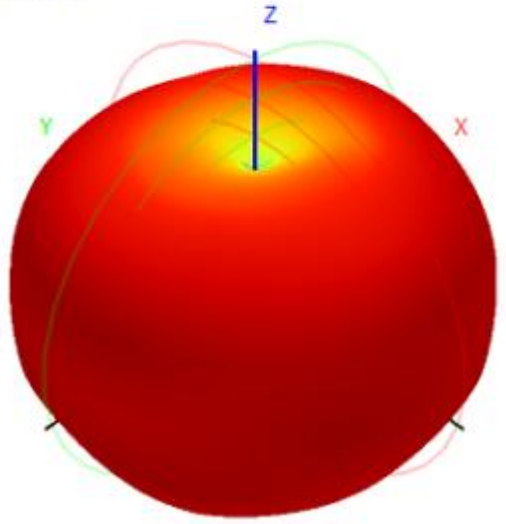
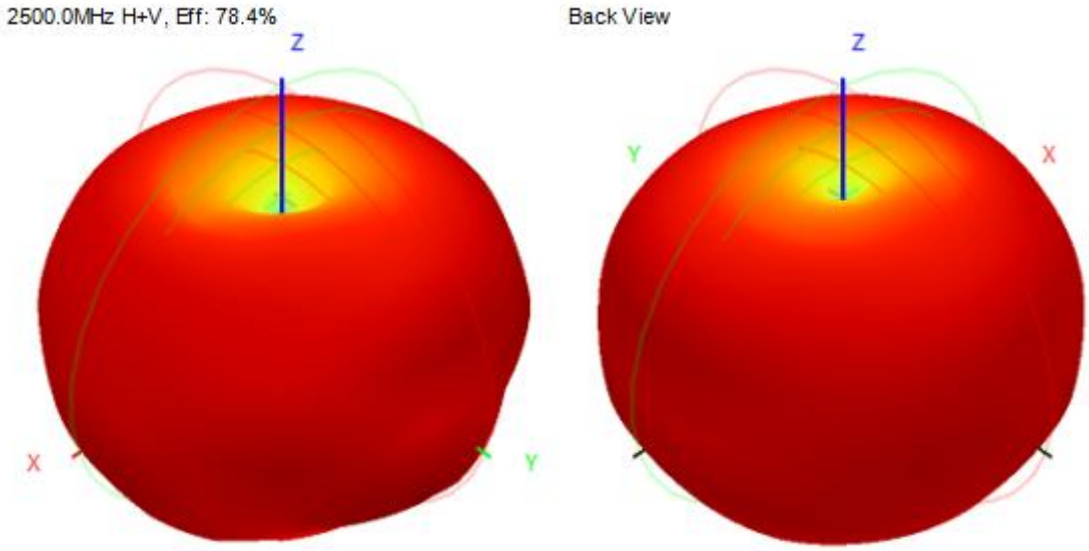


2490.0MHz H+V, Eff: 78.3%



Back View




2500.0MHz H+V, Eff: 78.4%
Z
X
Y
Back View
Z
Y
X