

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			

本测试报告属于东莞市蓝一通讯科技有限公司和相关客户文件，请妥善保管，在没有我们公司允许的情况下，任何人都不能重新向公众公布的权利。

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1.0 实物图 (Physical drawing)



2.0 Electrical Properties

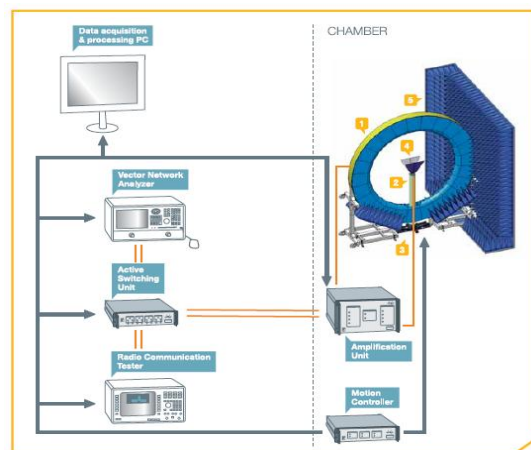
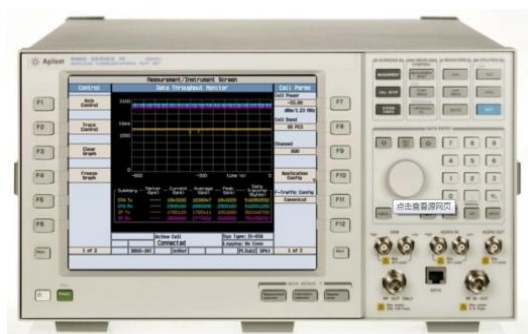
- 1.1 中心频率 (Center Frequency) 2400-2500MHz
- 1.2 馈电阻抗 (impedance) 50ohm
- 1.3 电压驻波比 (VSWR) ≤ 2.0
- 1.4 最大增益 (Peak Gain) ≥ 2.0 dBi Peak Gain
- 1.5 极化 (Polarization) Linear
- 1.6 天线接口 (Interface) SMA male head
- 1.7 天线尺寸 (Size) 109mm $\times$ 10mm

Mechanical Specification:

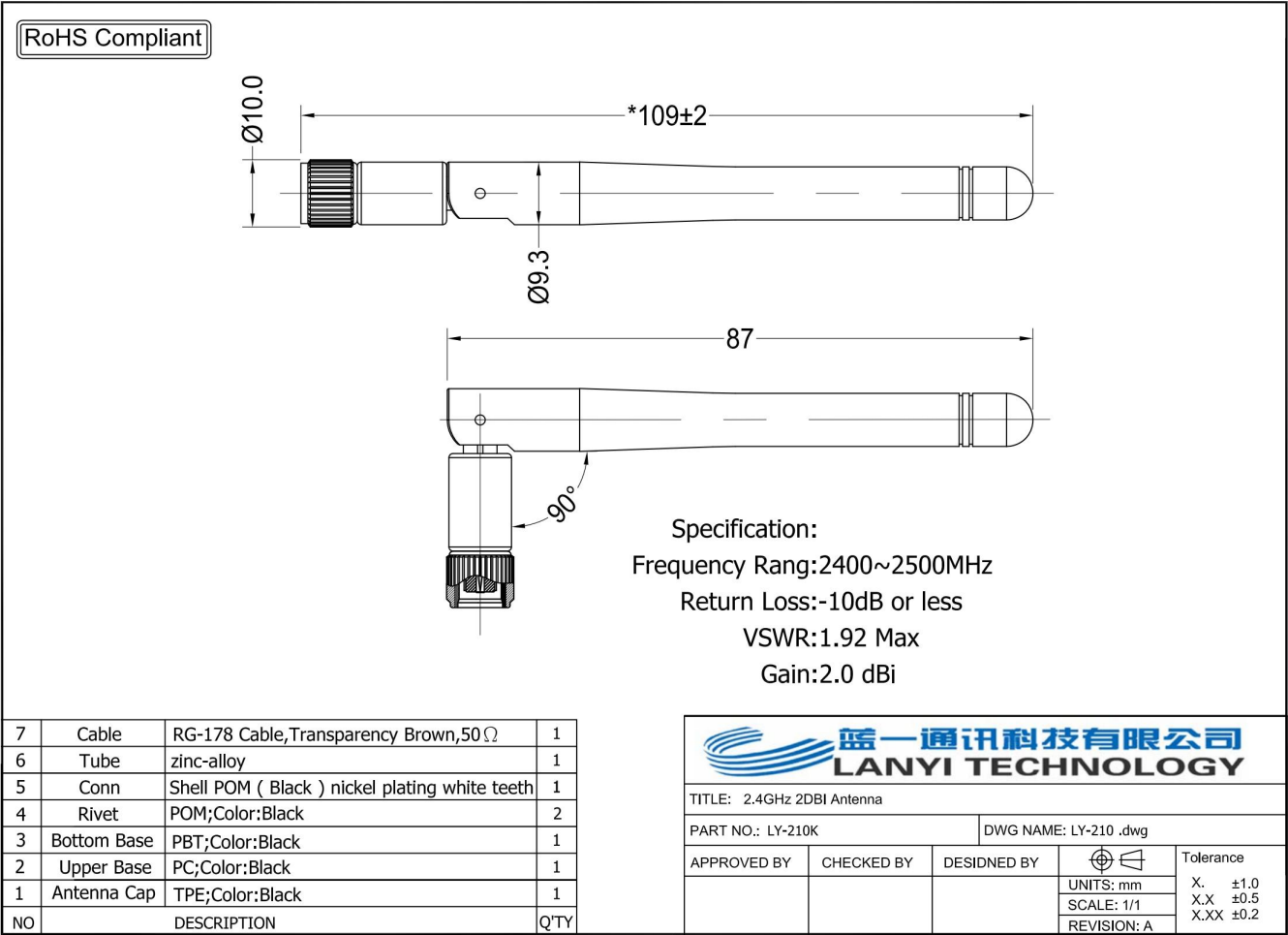
- 2.0 工作温度 (Working Temperature) $-40^{\circ}\text{C} - +80^{\circ}\text{C}$
- 2.2 湿度 Humidity Non-condensing 65°C 95% RH

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。

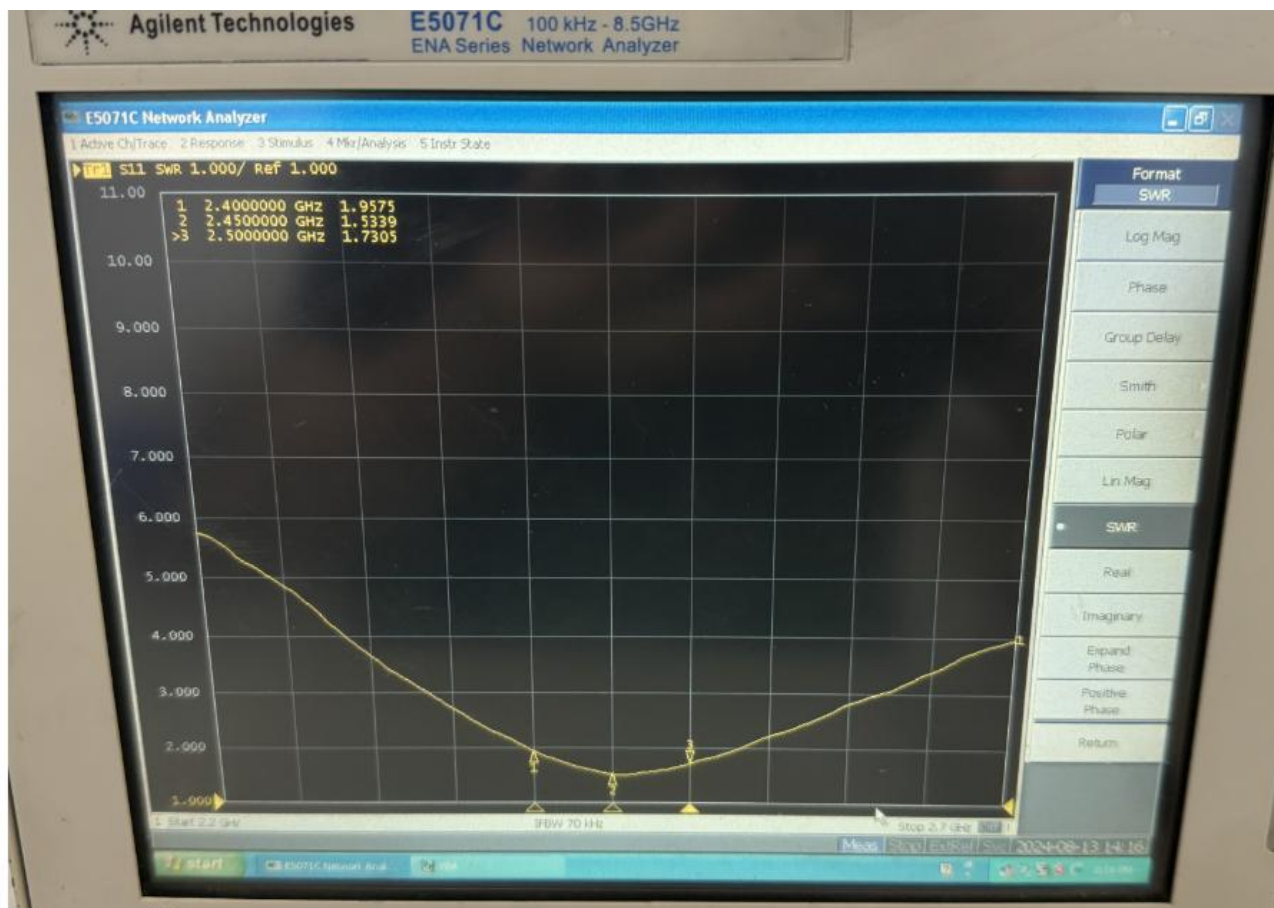


4.0图纸 Mechanical Drawing (Unit: mm)



5.0 Return Loss, SWR,

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

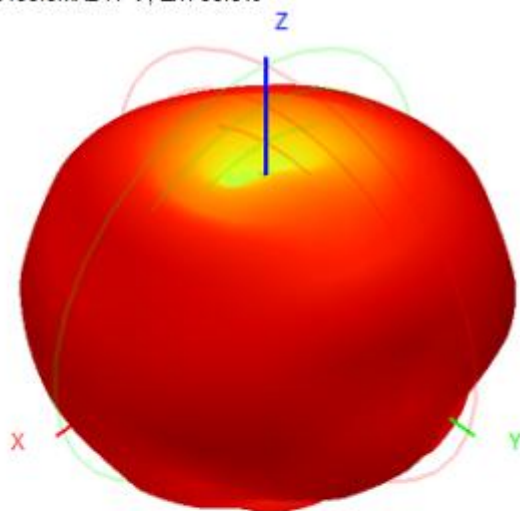


6.0 Efficiency & Gain

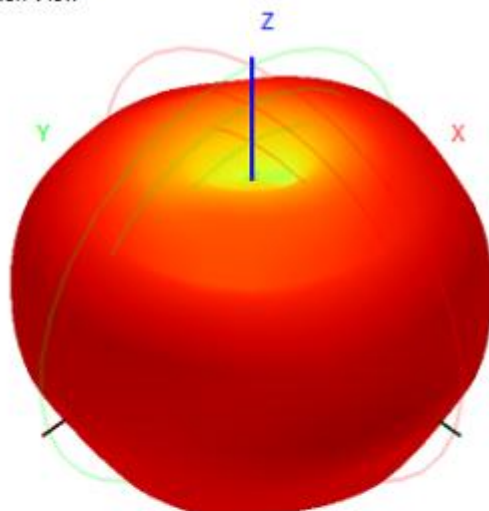
东莞市蓝一通讯科技有限公司											
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-0.94	-0.92	-0.99	-1.07	-1.03	-0.95	-0.91	-0.95	-1.04	-1.06	-1.06
Gain (dBi)	2.67	2.51	2.12	1.75	1.95	2.09	2.11	1.94	1.68	1.78	1.91
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

7.0 Radiation Pattern

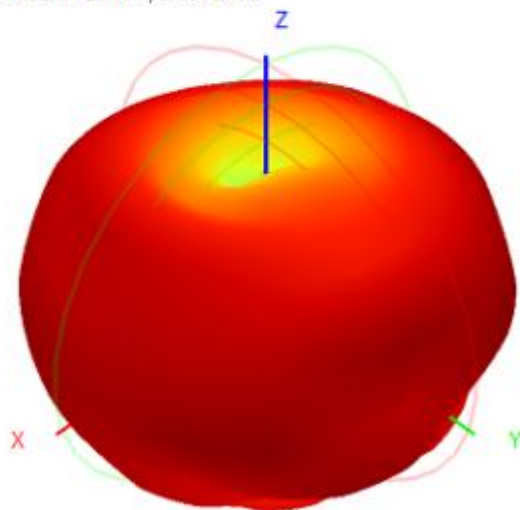
2400.0MHz H+V, Eff: 80.6%



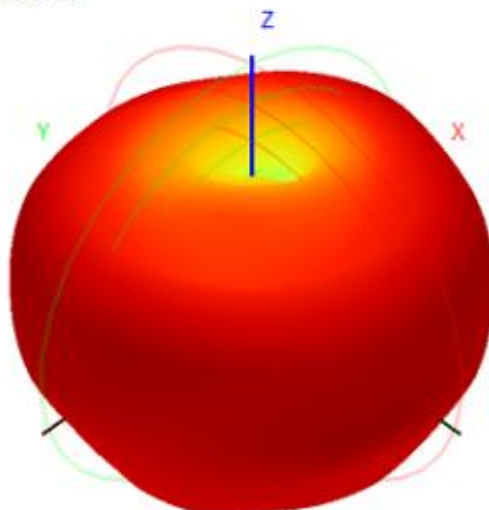
Back View



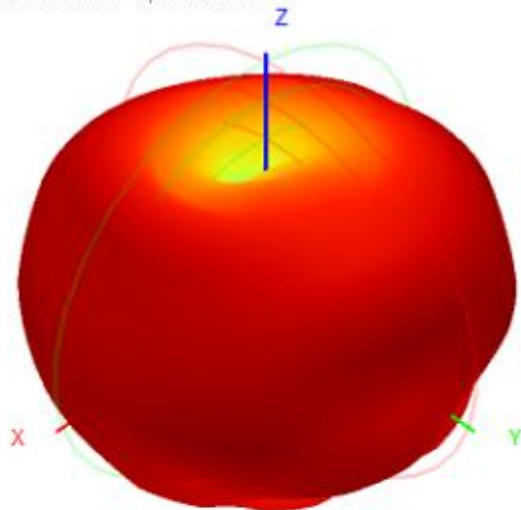
2410.0MHz H+V, Eff: 80.9%



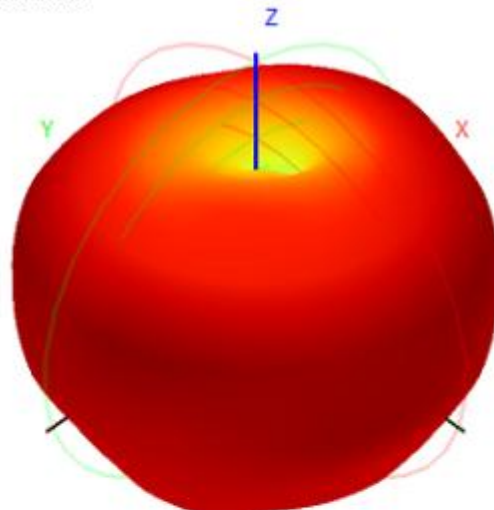
Back View



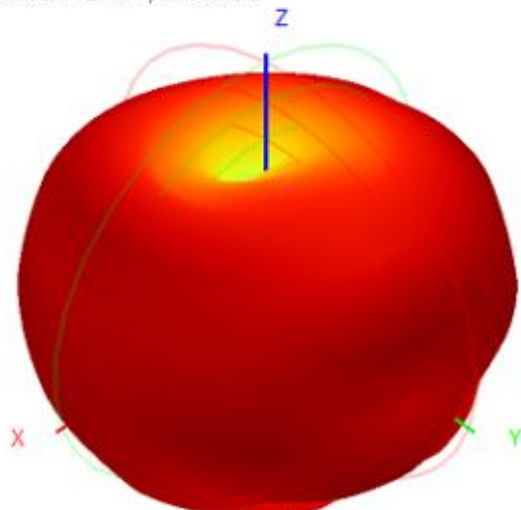
2420.0MHz H+V, Eff: 79.6%



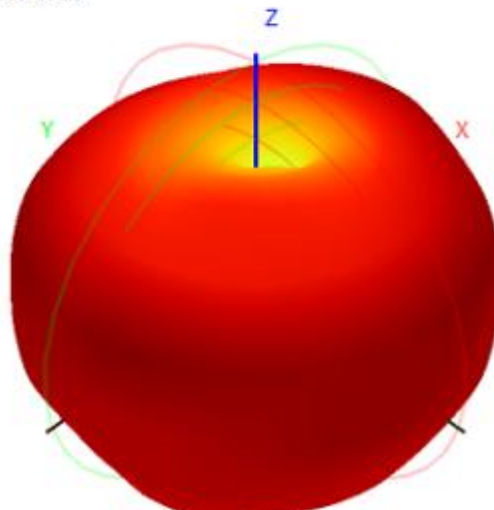
Back View



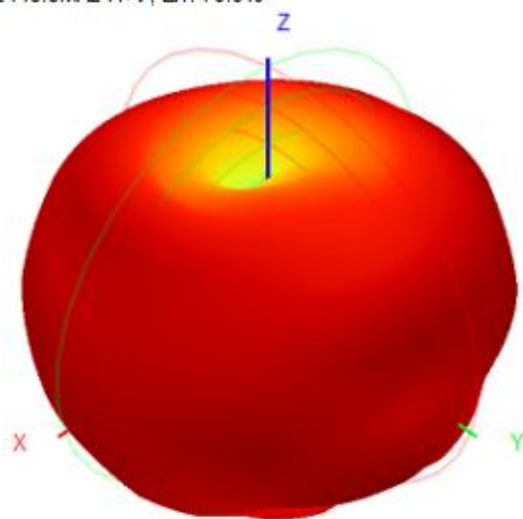
2430.0MHz H+V, Eff: 78.2%



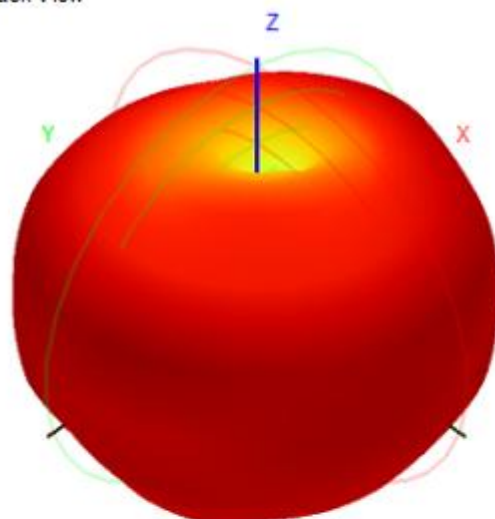
Back View



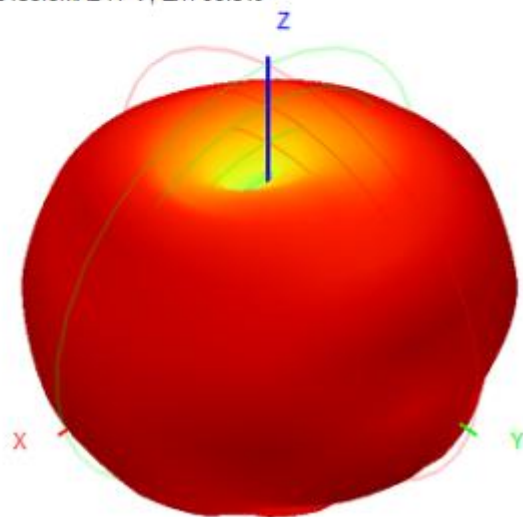
2440.0MHz H+V, Eff: 78.8%



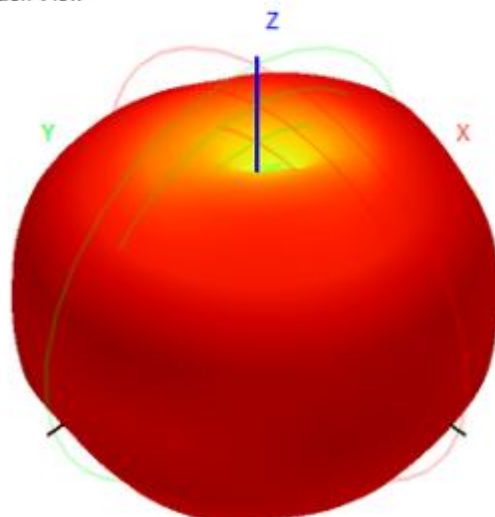
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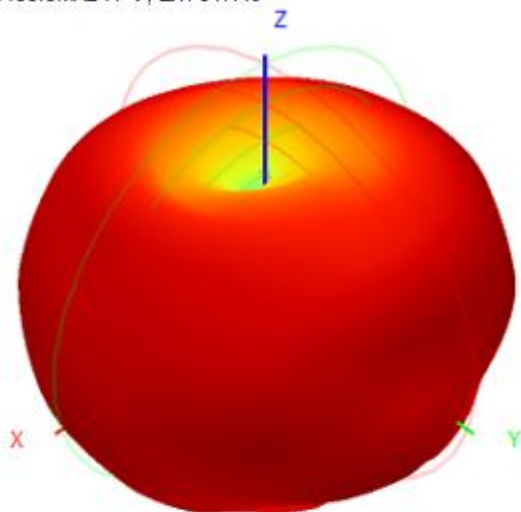
2450.0MHz H+V, Eff: 80.3%



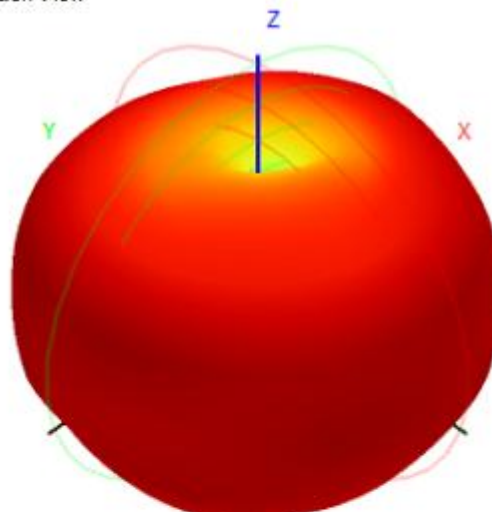
Back View



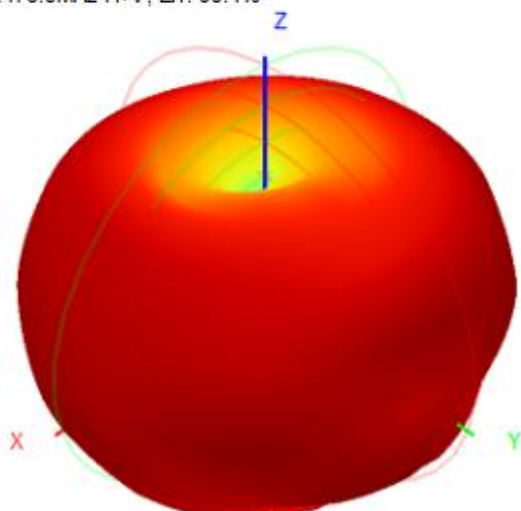
2460.0MHz H+V, Eff: 81.1%



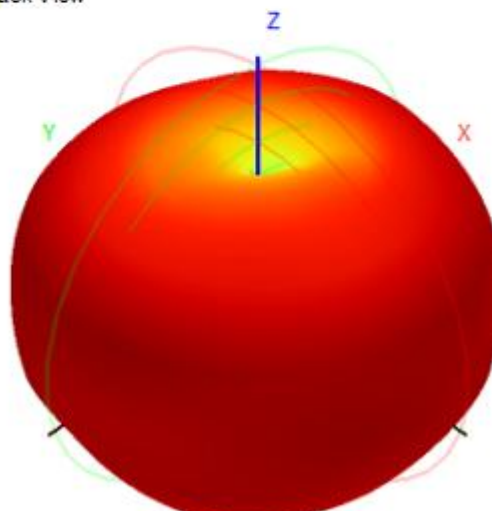
Back View



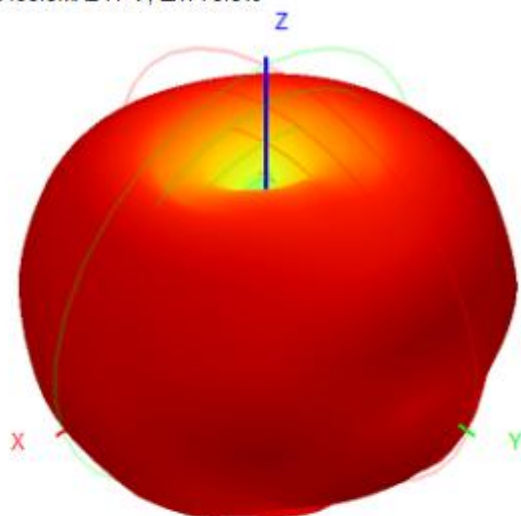
2470.0MHz H+V, Eff: 80.4%



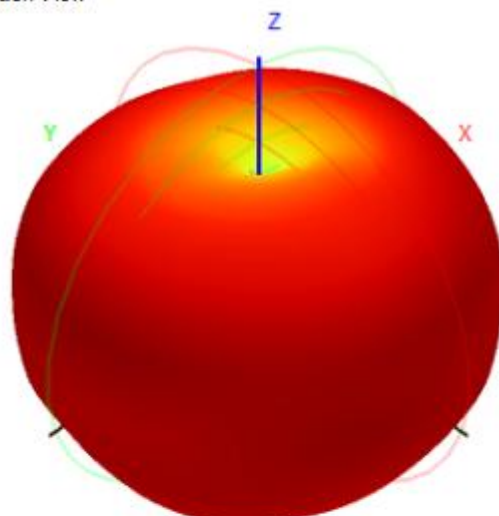
Back View



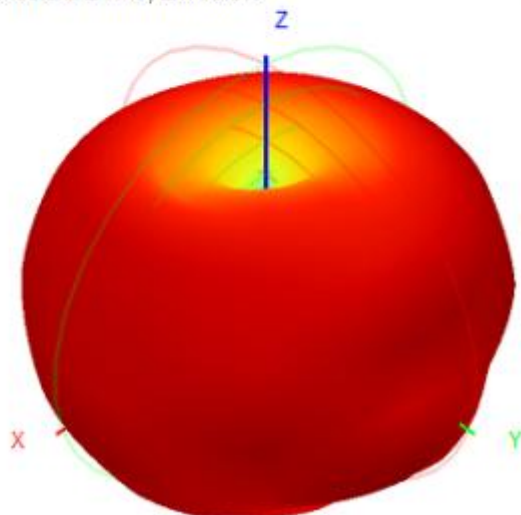
2480.0MHz H+V, Eff: 78.6%



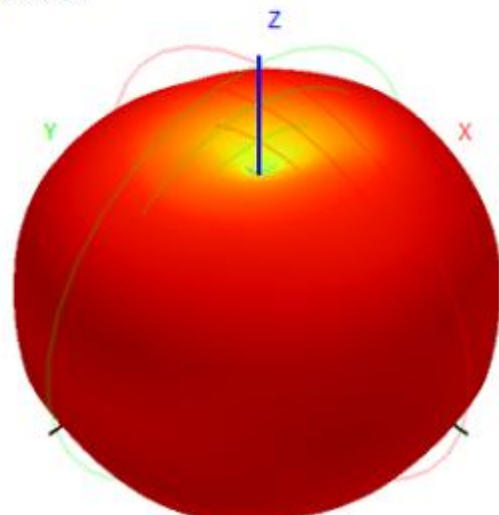
Back View



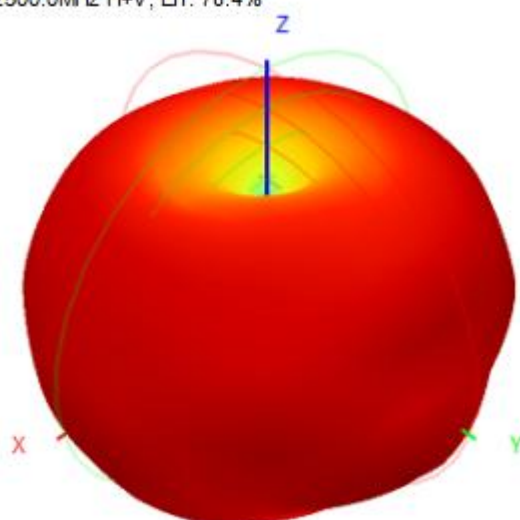
2490.0MHz H+V, Eff: 78.3%



Back View



2500.0MHz H+V, Eff: 78.4%



Back View

