

天线产品规格承认书

ANTENNA SPECIFICATION FOR APPROVAL

客户 CUSTOMER : 深圳阿尔木创新科技有限公司客户方料号 CUSTOMER NO : XD-FL-00540品名 PART NAME : 2.4GHz T 型 发射天线供货方料号 SUPPLIER : S-RM-A04送样日期 DATE: 2022-10-19 送样数量 QTY 10Pcs**承认书包括以下项目**

NO.	内容 Contents	页数	页码
1	天线规格 Specification	1	2
2	工程图 Drawing	1	3
3	机械耐久性能测试 Mechanical/durability	1	4
4	S 参数测试 S Parameter	1	5
5	暗室无源测试 Passive Test	7	6-12

客户确认 CUSTOMER APPROVED BY

APPROVAL	CHIEF	SUPERVISOR

供货方确认 SUPPLIER SIGNATURE BY

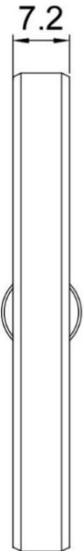
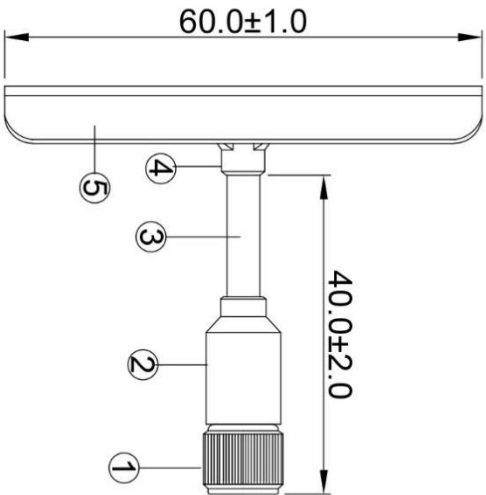
APPROVAL	CHECK	DESIGN

天线规格 Specification

电器参数 Electrical Properties	
频率 Frequency	2400MHz-2500MHz
输入阻抗 Impedance	50 Ω
驻波比 S. W. R	≤ 1.5
回波损耗 Return Loss	详见 S 参数测试
辐射方式 Radiation	全指向性 Omnidirectional
增益 Gain (Peak)	4.11 dBi max
极化方式 Polarization	线性 Linear

结构参数 Physical Properties	
天线材质 Antenna material	Cu
外壳材质 Cover material	PC
同轴电缆 Cable	RG-402
连接器 Connector	反极 SMA RP-SMA
尺寸 Size	详见工程图
重量 Weight	详见工程图
包装 Packing	PE bags

CUSTOMER	RADIOMASTER	REV.	DESCRIPTION	DATE
PART NO	XD-FL-00540	Compatible	首次发行	2022-10-19



5	Antenna Cap	PC, Color:black	1
4	Upper Base	PC, Color:black	1
3	Coaxial Cable	RG-402 black	1
2	Bottom Base	PBT, Color:black	1
1	SMA Male Reverse	CU black	1
NO	PART NAME	DESCRIPTION	Q.TY

RUSHPPV 深圳亦是科技有限公司 Shenzhen Yishi technology Co., Ltd		PART NAME:2.4GHz T Antenna (TRANSMITTER) PART NO.: S-RM-A04 APPROVED BY CHECKED BY DESIGNED BY		DATE:2022-10-19 UNITS: mm SCALE:1/1 REVISION: A
Ziyuan Dongsheng		Tolerance X.X ±0.50 X.XX±0.15 X° ±3°		

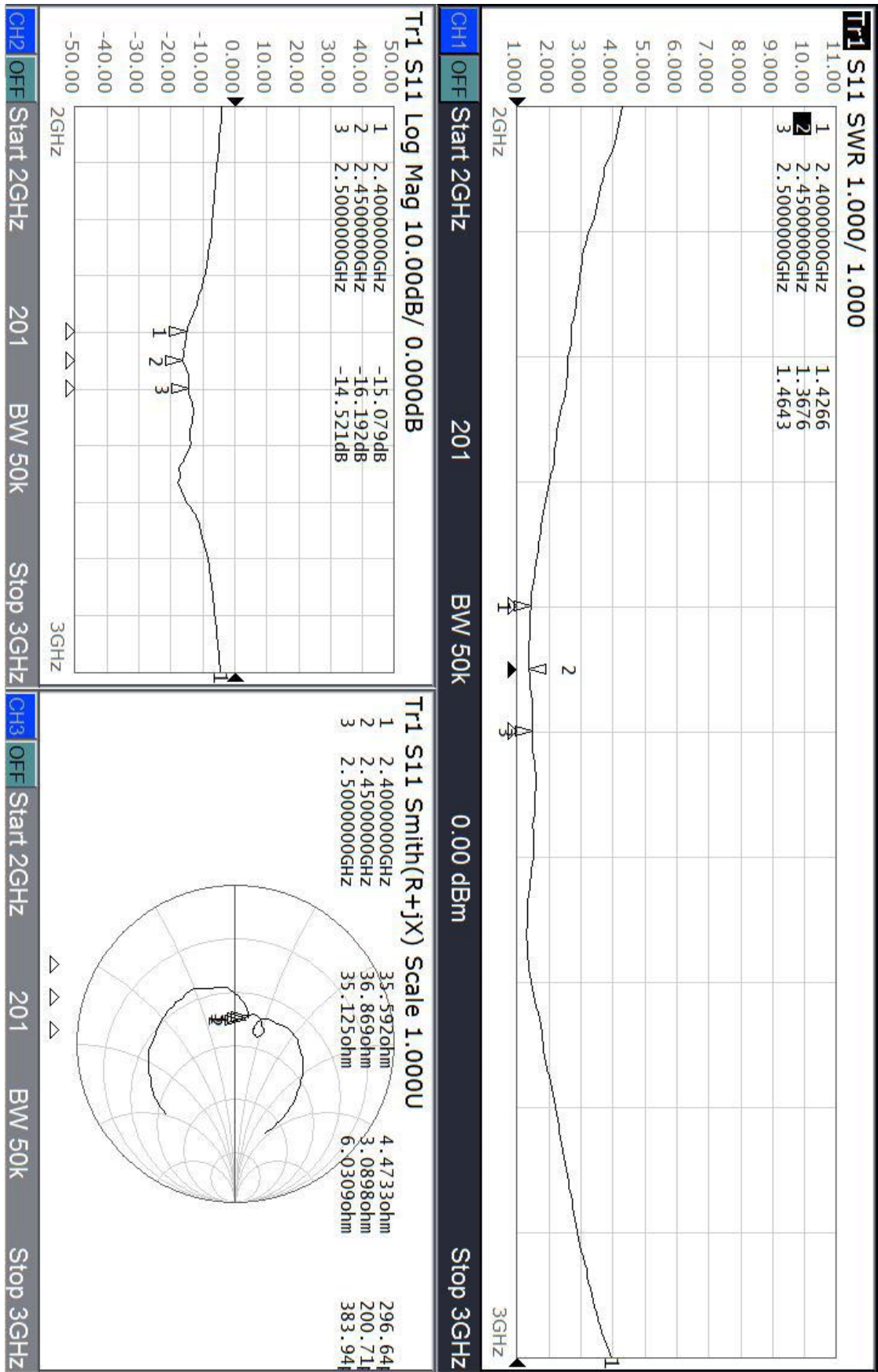
机械性能测试

1	摇摆测试 BENDING TEST	放离接头 30CM 的线端上负荷 120g, 固定接头后进行摇摆测试, 摇摆角度左右各 60 度, 摇摆 1000 次后测试特性.	摇摆 1000 次后测试特性无任何现象显示电器性能之损坏.
2	强度测试 STRENG TEST	一个 15 磅之静负荷施加放线端底部持续一分钟.	无任何现象显示机械及电器性能之损坏.
3	拉力测试 PULLING FORCE	用拉力计接头及线材间进行拉力测试.	可承受拉力为 7Kg 无任何现象显示电器性能之损坏.
4	振动测试 VIBRATION TEST	以 1.10mm 和振幅和 33.30Hz/sec 振动频率以 X 轴方向振动 120 分钟, Y 轴方向振动 120 分钟, Z 轴方向振动 240 分钟.	无任何现象显示电器性能之损坏.

耐久性测试

1	盐雾测试 SAIT SPRAY TEST	盐水喷雾试验: 依 GB1266-86 标准 蒸馏水: 一次蒸馏 PH6.5~7 喷雾量: 1.4me80cm ² /h 压缩空气压力: 1Kgf/ cm ² 试验相对度: 98° 温度: 45°~47° 压力温度: 35° 测试时间: 96hr	所有规格变化范围初始值 30% All characteristic range is 30% of the initial value
2	高温测试 HUMIDITY TEST	在 85+2°C 环境中放 96 小时, 再放在正常环境中 30 分钟后进行测试 85+2°C for 96 hours, after keep in normal condition for 30mim the to test.	
3	湿度测试 PULLING FORCE	在 -40+2°C 环境中放 96 小时, 再置放正常环境中 30 分钟后进行测试 -40+2°C for 96hours, after keep in normal condition for 30mim the to test	
4	低温测试 COLD TEST	以 1.10mm 和振幅和 33.30Hz/sec 振动频率以 X 轴方向振动 120 分钟, Y 轴方向振动 120 分钟, Z 轴方向振动 240 分钟.	

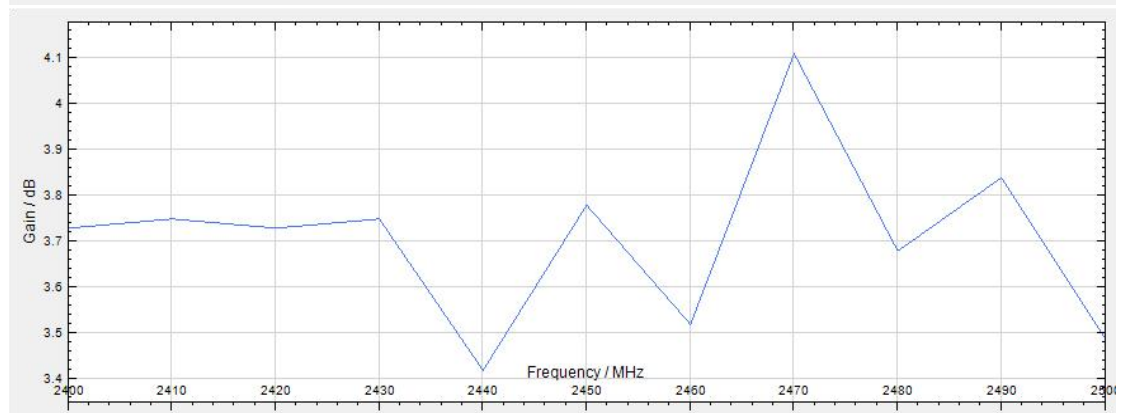
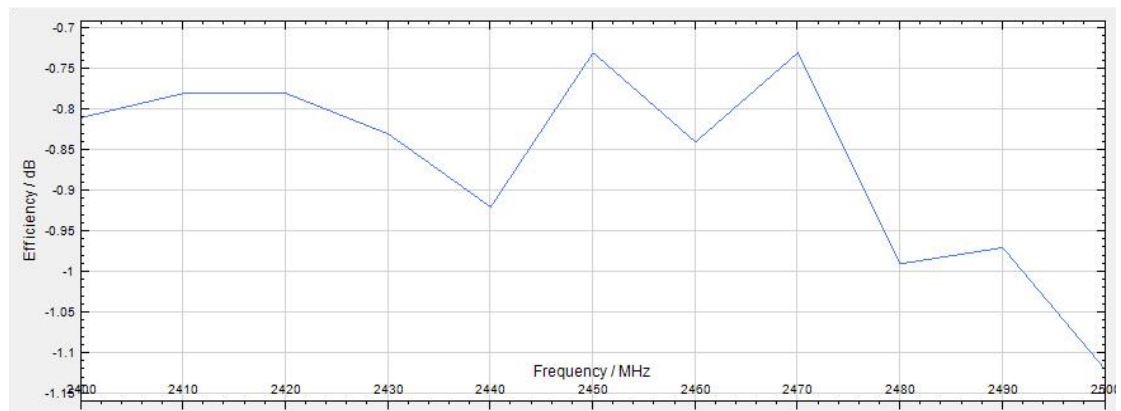
S 参数测试



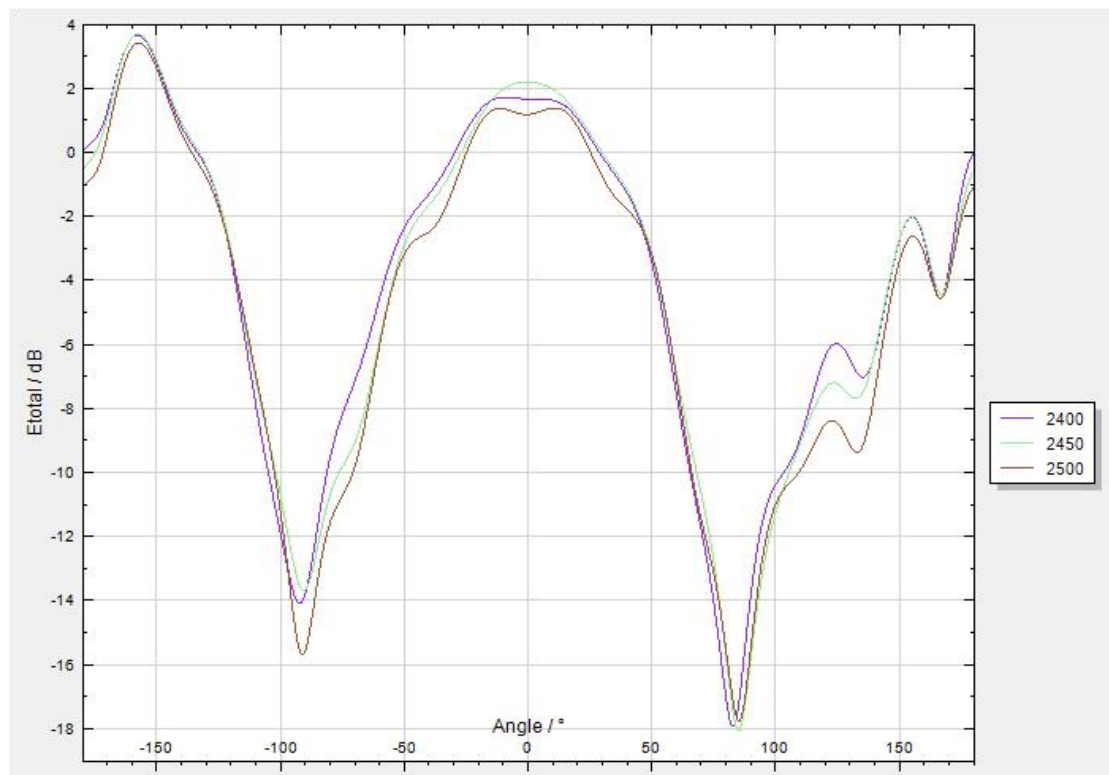
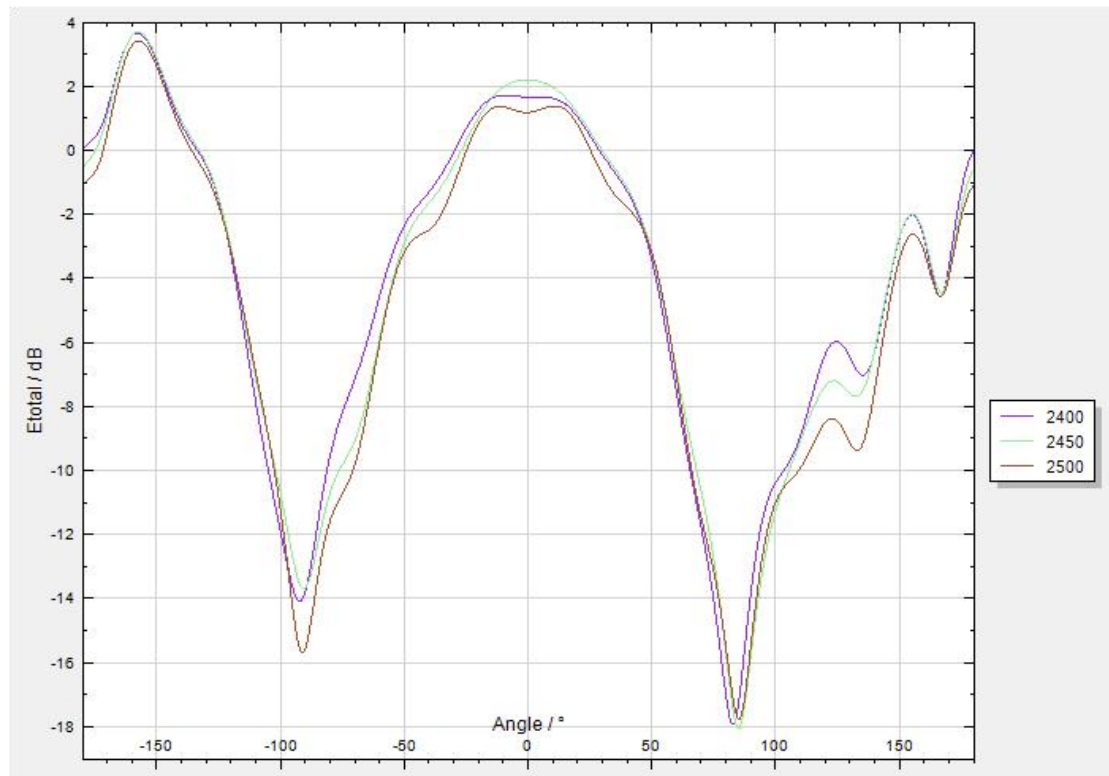
暗室测试

Antenna Passive Test

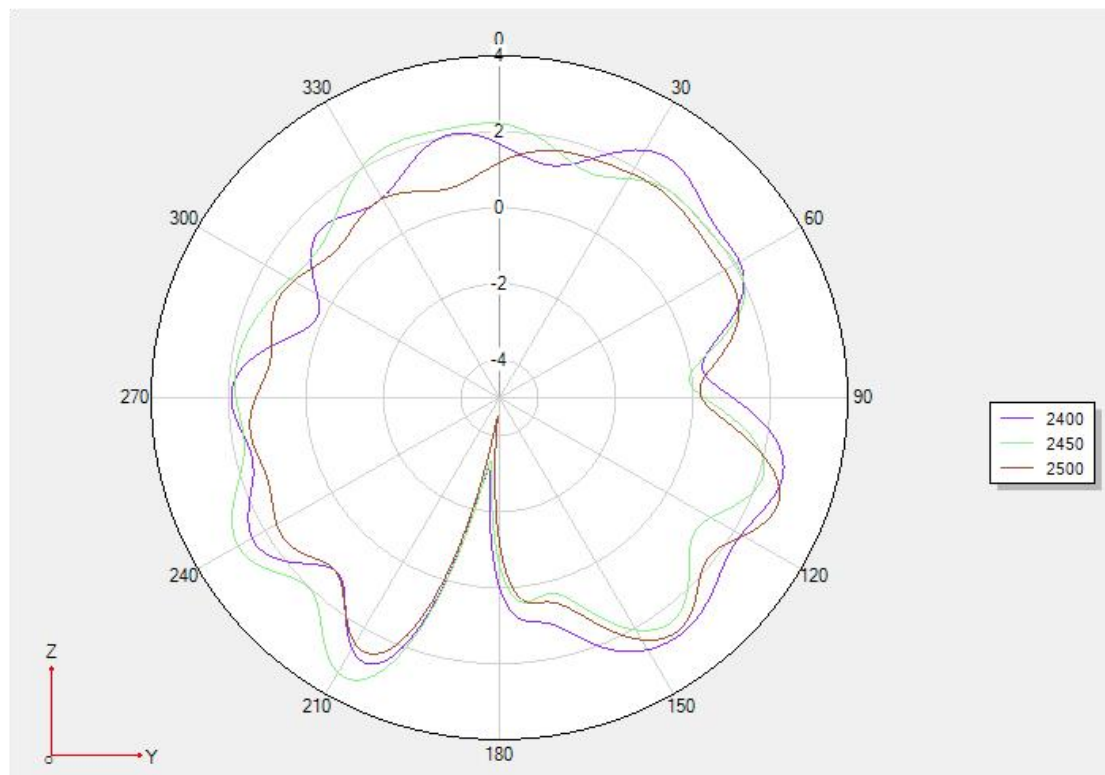
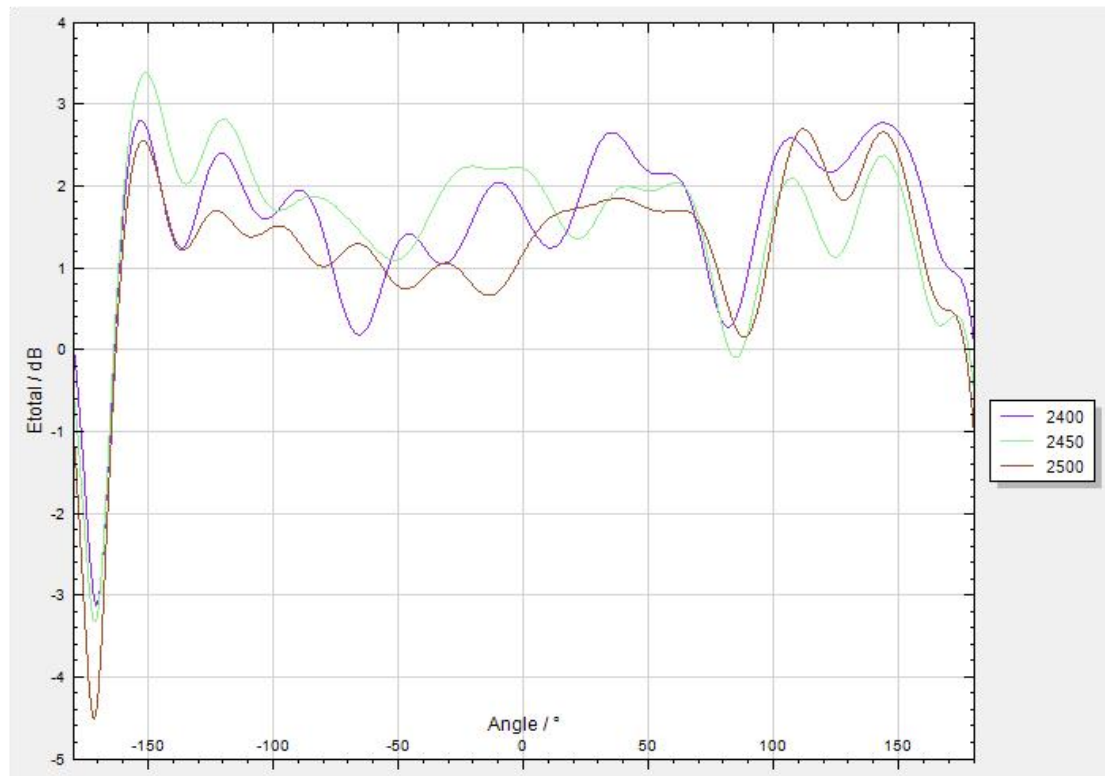
Efficiency			Gain	
Frequency / MHz	Efficiency / dB	Efficiency / %	Frequency / MHz	Gain/ dB
2400	-0.81	82.99	2400	3.73
2410	-0.78	83.56	2410	3.75
2420	-0.78	83.56	2420	3.73
2430	-0.83	82.6	2430	3.75
2440	-0.92	80.91	2440	3.42
2450	-0.73	84.53	2450	3.78
2460	-0.84	82.41	2460	3.52
2470	-0.73	84.53	2470	4.11
2480	-0.99	79.62	2480	3.68
2490	-0.97	79.98	2490	3.84
2500	-1.12	77.27	2500	3.49



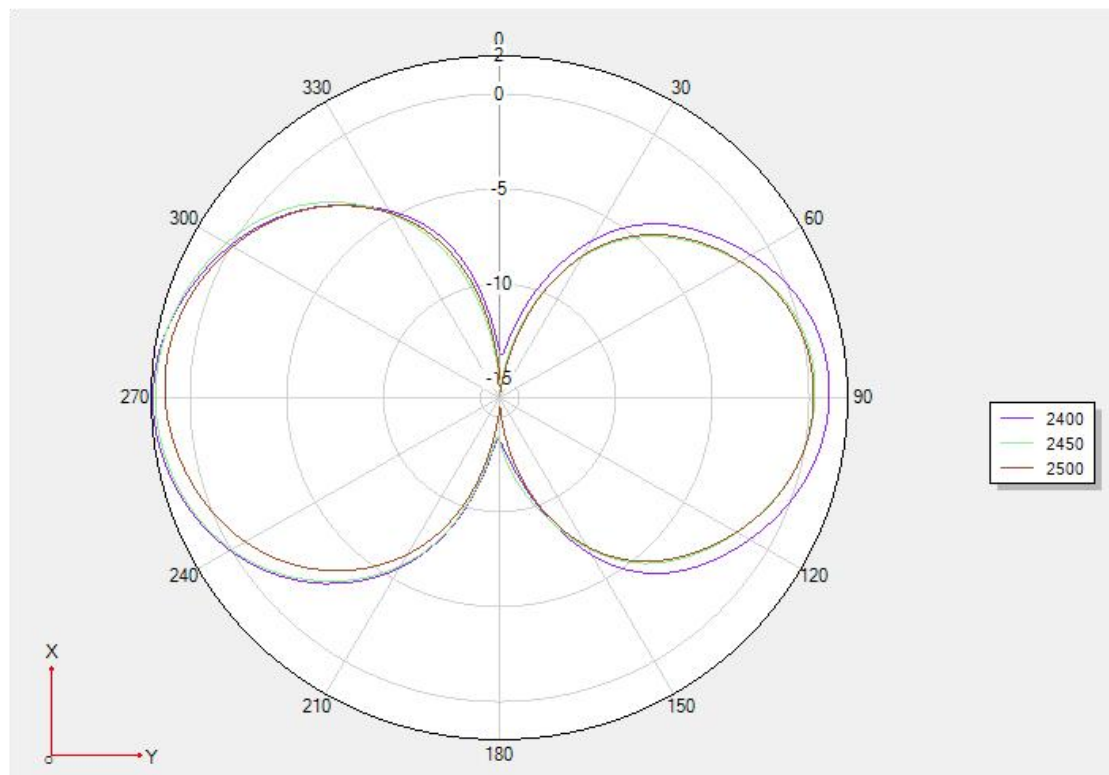
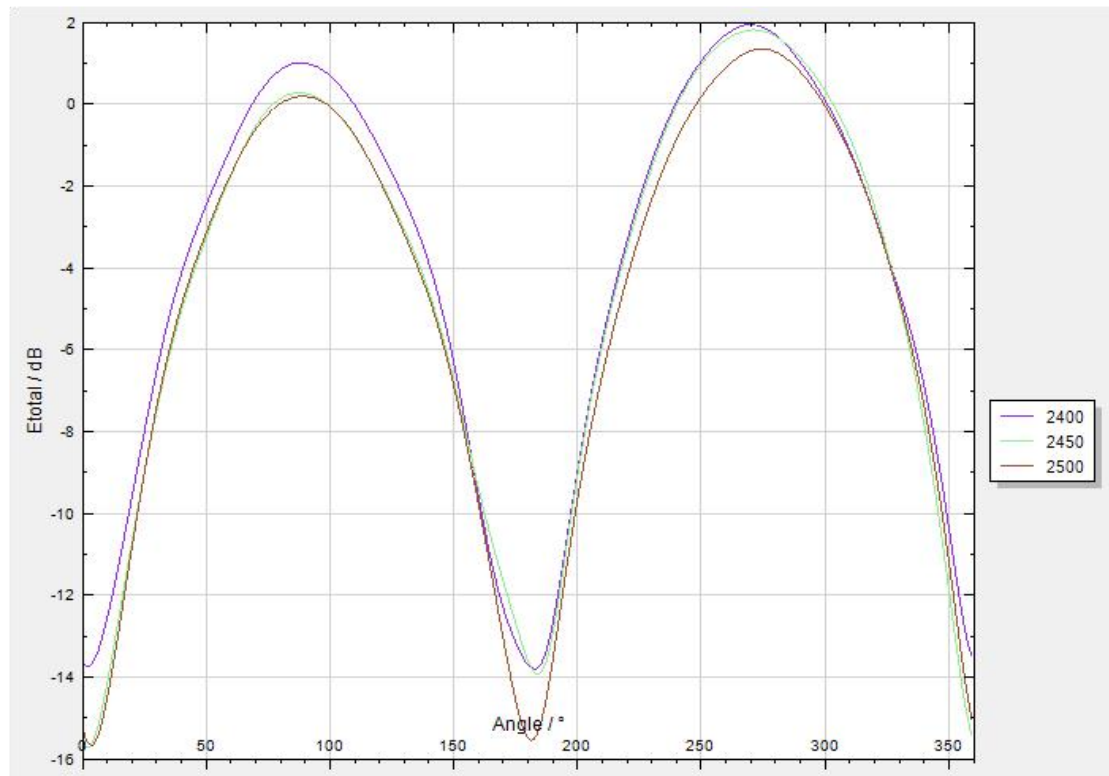
Phi0 2D



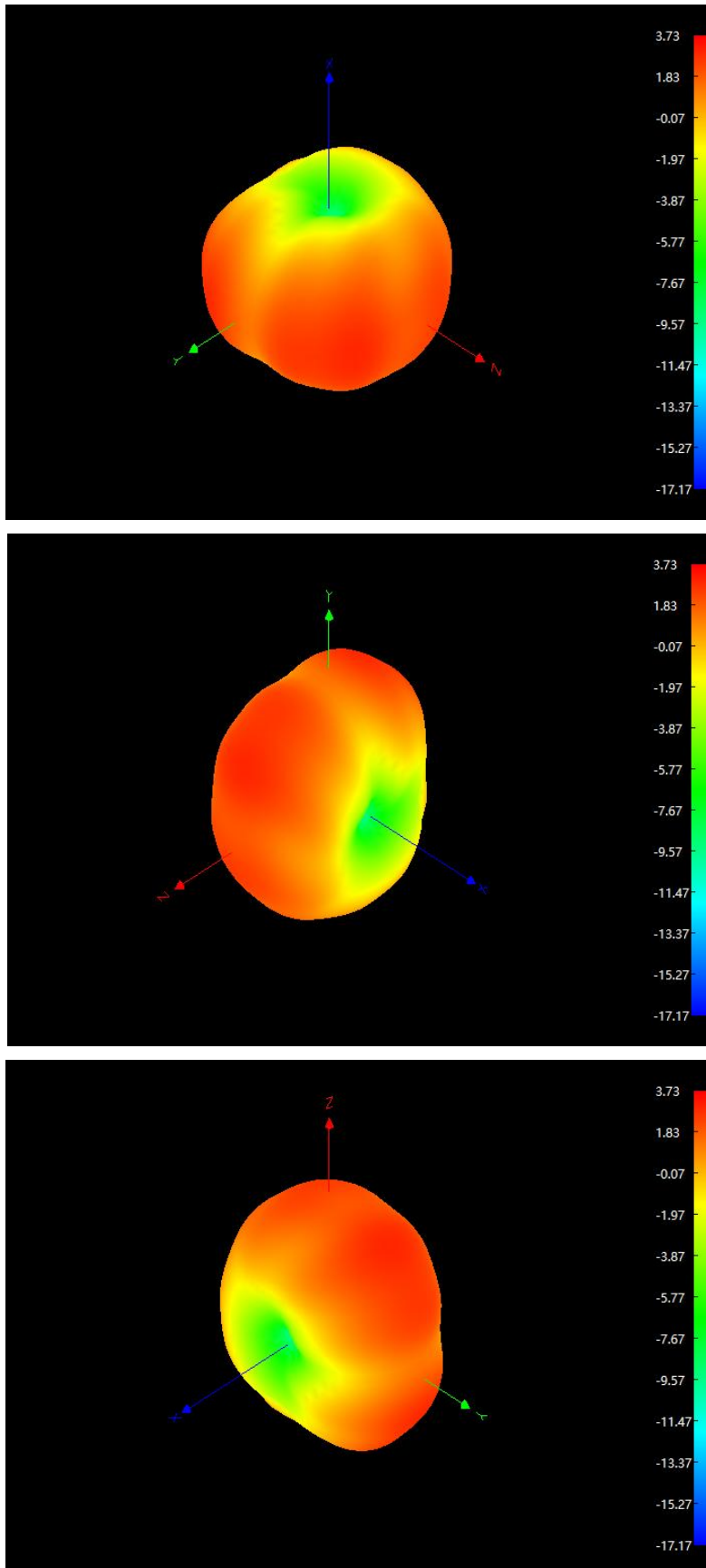
Phi 90 2D



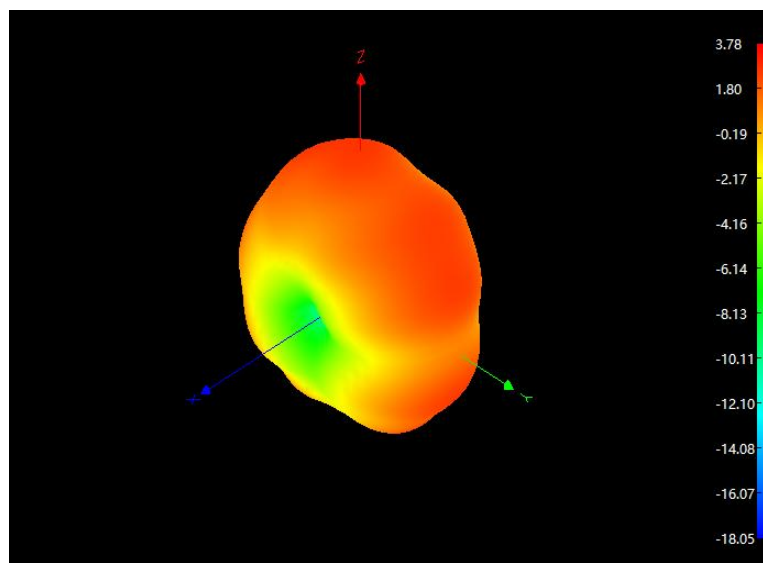
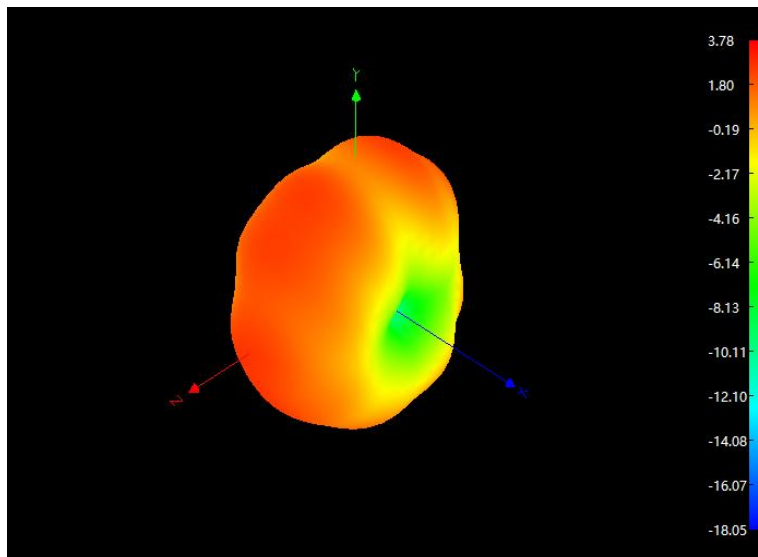
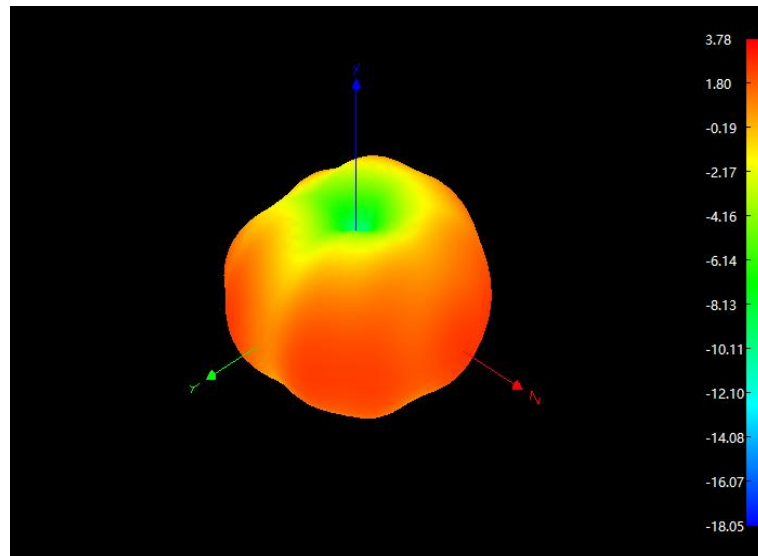
Theta 90 2D



3D 辐射图 @2400MHz



3D 辐射图 @2450MHz



3D 辐射图 @2500MHz

