



4th Floor, Building 3, No. 10 Yinyang Road, Zhangyang, Zhangmutou Town, Dongguan City

## 规格承认书

SPECIFICATION FOR APPROVAL

客 户 Customer	
项目名称 Project Name	C10 - BT天线
客 户 料 号 Customer NO.	
规 格 specification	BT天线
供 方 料 号 Supplier NO.	C10-BT
规格书编号 Specification NO.	
测试人 Write by	张斌
版本 REV.	Ver.1
日 期 Date	2025/6/16
备 注 Note	

客户确认 CUSTOMER APPROVED BY		
批准 Approved by	审核 Checked by	制表 Prepared by
供方确认 SUPPLIER APPROVED BY		
批准 Approved by	审核 Checked by	制表 Prepared by
王英杰 James	马东瑞 Mamr	张斌 Zhang Bin



东莞市致研科技有限公司  
Dongguan Zhiyan Technology Co., Ltd

版本变更记录				
变更日期	变更内容	版本	变更人	批准人

## 1. 承认书项目表 (Index)

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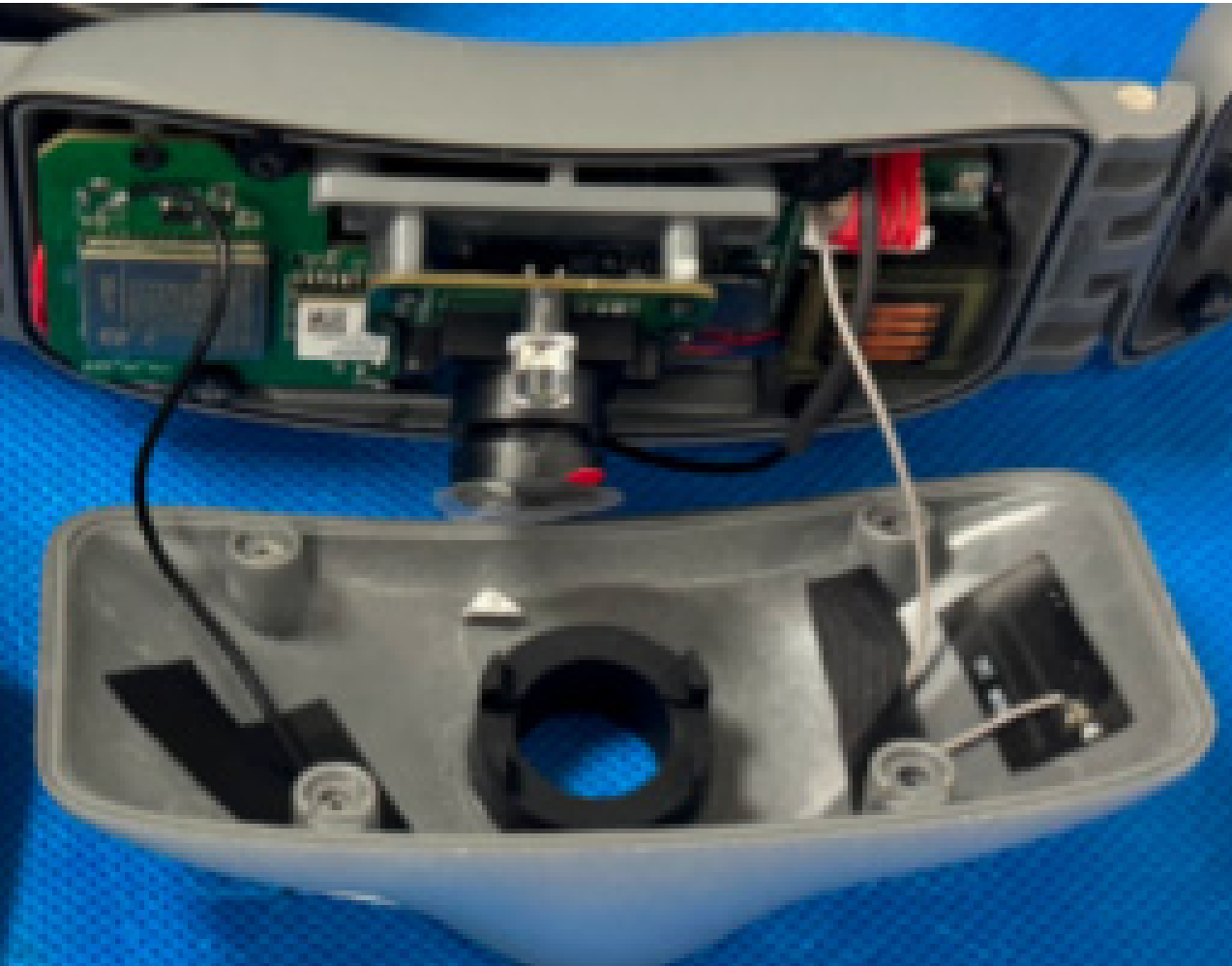
## 2. 试验设备和条件(Test Equipment & Conditions)

2.1 . Network Analyzers : KEYSIGHT [P5002A](#)

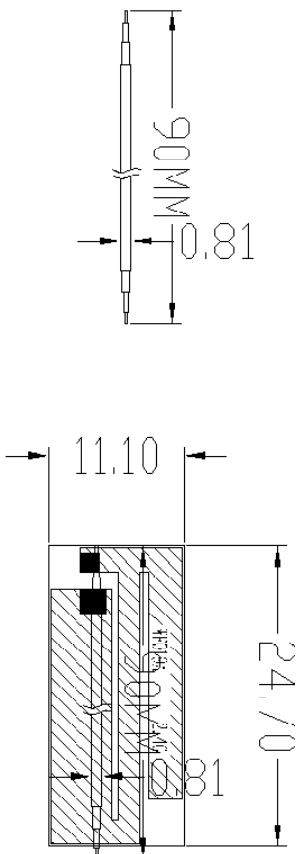
2.2 . Communications Test Set: R&S CMW 500

2.3 . 3D Chamber Test System: 2 4 探头测试系统

### 3. 样机结构说明件(Mechanical instruction)



BT天线位置



二、头文件: 1. j; 2

1. "A"为重点尺寸, 孔位以通孔为准;
  2. FPC材料: 马都瓦, 一对半;
  3. 反而背胶(3M300LSB);
  4. 未标公差尺寸, 按兵部尺寸公差为 $\pm 0.15$ , 铜箔线条尺寸公差为 $\pm 0.05$ , 标重点的孔公差为 $\pm 0.03$ ;
  5. 欠心部分为描红化, 画线条的为描红区, 画交叉线者为描红区;
  6. 表面黑色油墨, 白墨水;
- Zn、Hg、Cr-6、PBBS、2BDEs各小于500PPM, Cd小于50PPM。

1		2		3		4		5		6		7		8	
料号		颜色		色号		标准颜色号									

图例: 1:3:2

注:

- 1.\*\*为重点尺寸,孔位以通型为准;
- 2.FPC材料:忌弯曲,一对半;
- 3.反面背胶3M300LSE;
- 4.未标注尺寸:模具冲制尺寸公差为±0.15, 细线条尺寸公差为±0.05, 标准点尺寸公差为±0.08;
- 5.尖心部分为抗氧化,画斜线为为铜箔区,画交叉线为为背胶区;
- 6.表面黑色黑油,白色字漆
- 7.Pb、Hg、Cr16、PBBS、PBDES各小于500PPM,Cd小于50PPM。

图例: 1:3:2		图例: 1:3:2		图例: 1:3:2		图例: 1:3:2		图例: 1:3:2		图例: 1:3:2		图例: 1:3:2		图例: 1:3:2	
图例: 1:3:2		图例: 1:3:2		图例: 1:3:2		图例: 1:3:2		图例: 1:3:2		图例: 1:3:2		图例: 1:3:2		图例: 1:3:2	

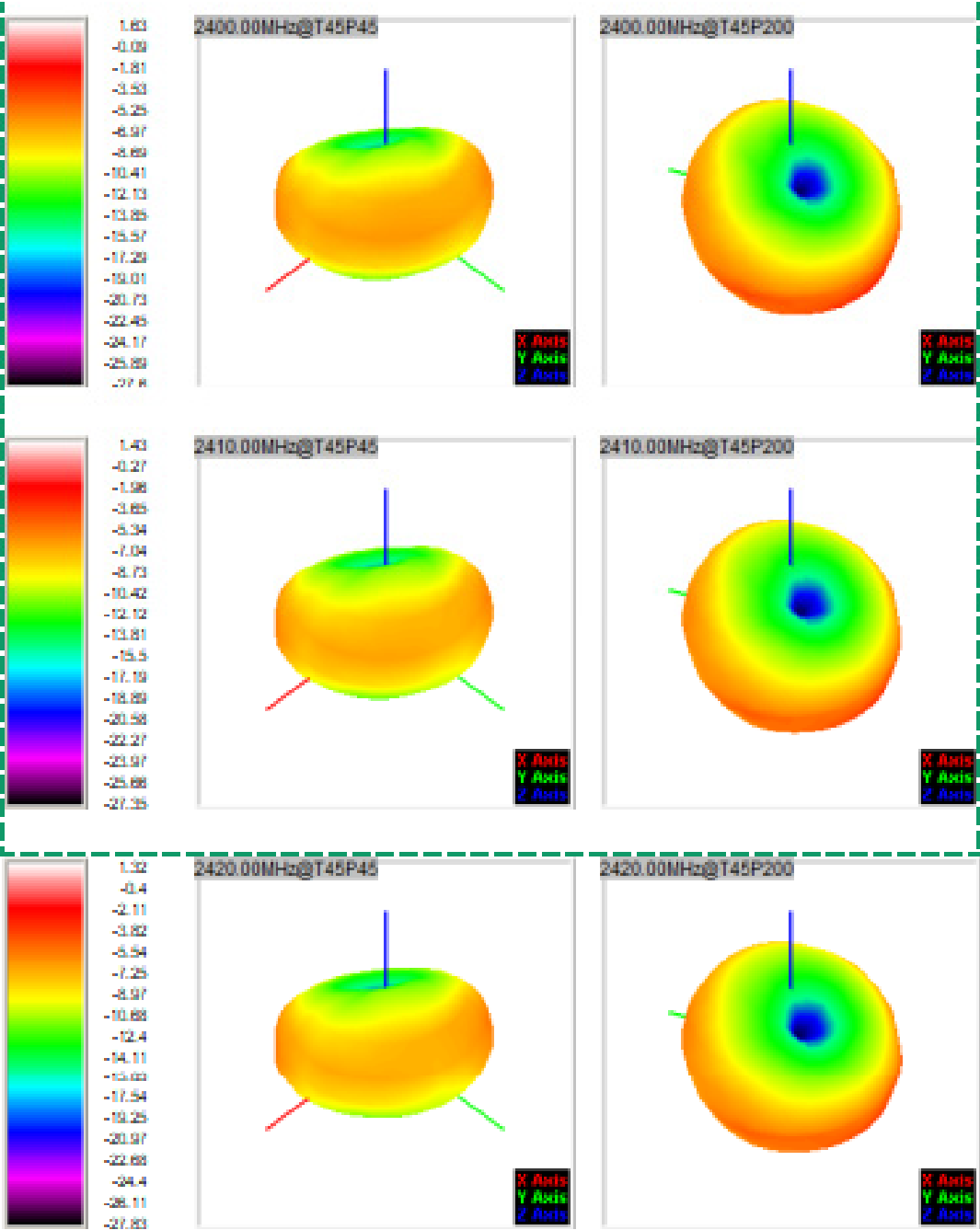
  

孔型	CD-H1	日期	2025.3.12	页码	1/1
项目编号		审核人			
零件名称	PVC	审核			
零件料号					
材质	PC				
表面处理		单位	mm	比例	1:1

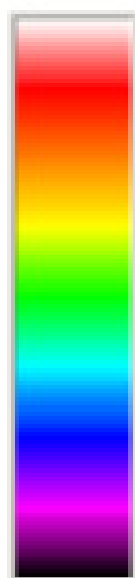
## 5: 效率

<b>FETUKEJI</b>											
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
Point Values											
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-3.24	-3.39	-3.35	-3.27	-3.29	-3.12	-3.17	-3.39	-3.34	-3.17	-3.21
Peak EIRP (dBm)	1.63	1.43	1.32	1.30	1.15	1.23	1.25	1.21	1.36	1.62	1.61
Directivity (dBi)	4.87	4.81	4.67	4.57	4.44	4.34	4.42	4.60	4.70	4.79	4.82
Efficiency (dB)	-3.24	-3.39	-3.35	-3.27	-3.29	-3.12	-3.17	-3.39	-3.34	-3.17	-3.21
Efficiency (%)	47.40	45.80	46.20	47.10	46.90	48.80	48.20	45.80	46.30	48.20	47.80
Gain (dBi)	1.63	1.43	1.32	1.30	1.15	1.23	1.25	1.21	1.36	1.62	1.61
NHPRP $\pm \pi/4$ (dBm)	-3.73	-3.88	-3.86	-3.78	-3.81	-3.65	-3.71	-3.93	-3.88	-3.70	-3.75
NHPRP $\pm \pi/6$ (dBm)	-4.67	-4.82	-4.79	-4.72	-4.77	-4.61	-4.67	-4.90	-4.85	-4.68	-4.73
NHPRP $\pm \pi/8$ (dBm)	-5.45	-5.59	-5.56	-5.50	-5.55	-5.40	-5.46	-5.68	-5.64	-5.46	-5.52
Upper Hem. PRP (dBm)	-5.68	-5.80	-5.75	-5.66	-5.65	-5.44	-5.46	-5.67	-5.63	-5.47	-5.48
Lower Hem. PRP (dBm)	-6.91	-7.10	-7.08	-7.00	-7.05	-6.94	-7.05	-7.28	-7.22	-7.03	-7.10
Upper Hem. PRP (%)	27.05	26.33	26.61	27.15	27.22	28.56	28.45	27.08	27.36	28.40	28.32
Lower Hem. PRP (%)	20.38	19.51	19.58	19.96	19.70	20.23	19.72	18.69	18.96	19.81	19.49

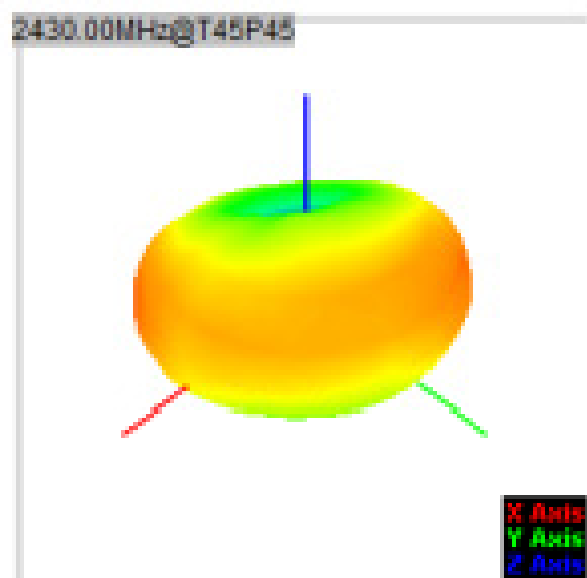
6: 3D图



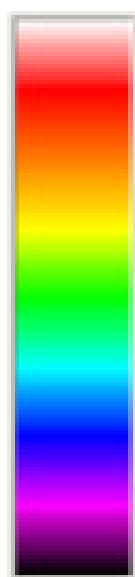
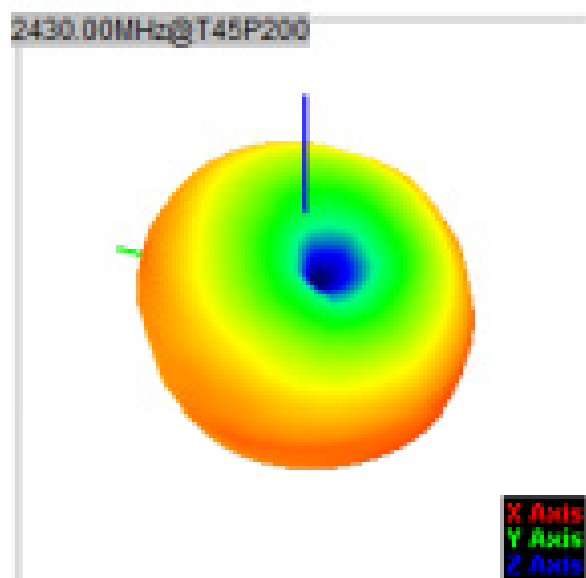




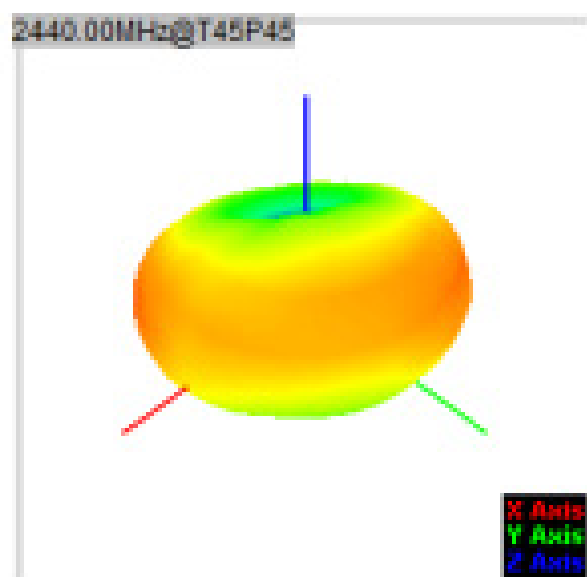
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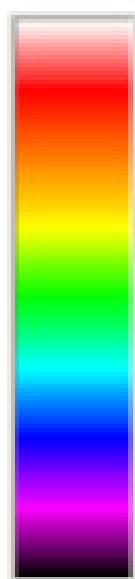
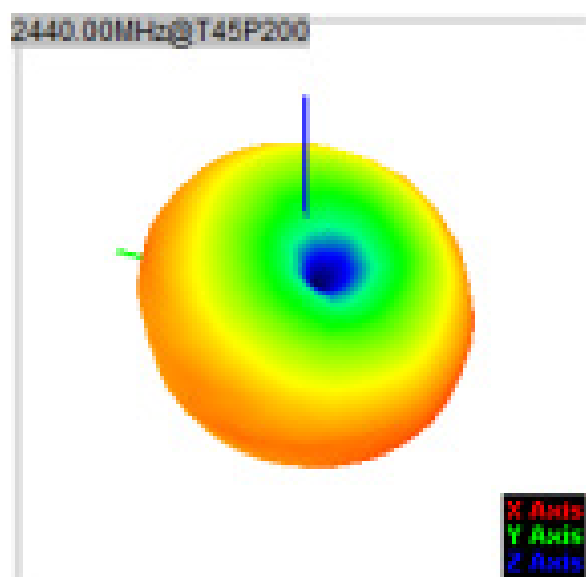
2430.00MHz@T45P200



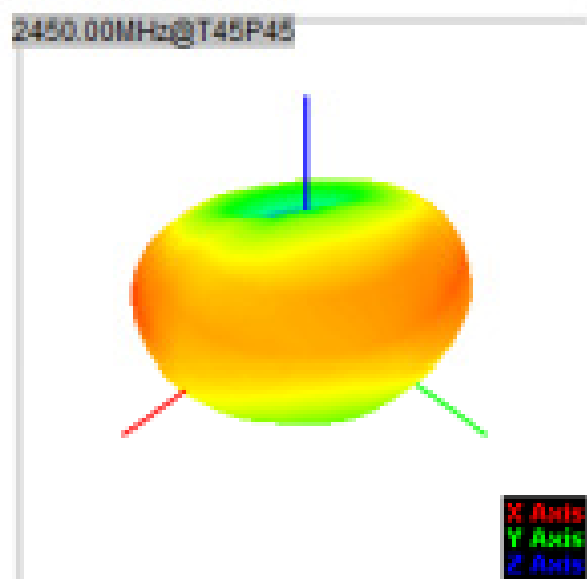
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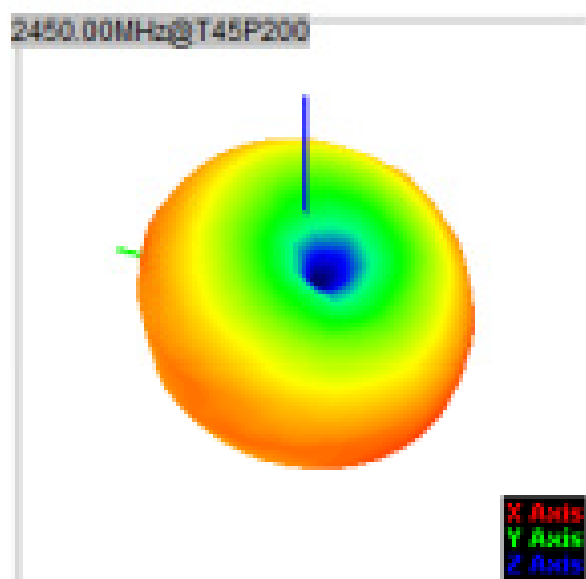
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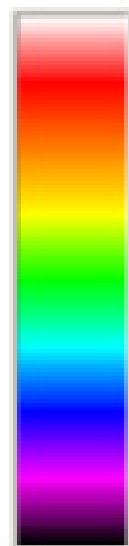


2450.00MHz@T45P45



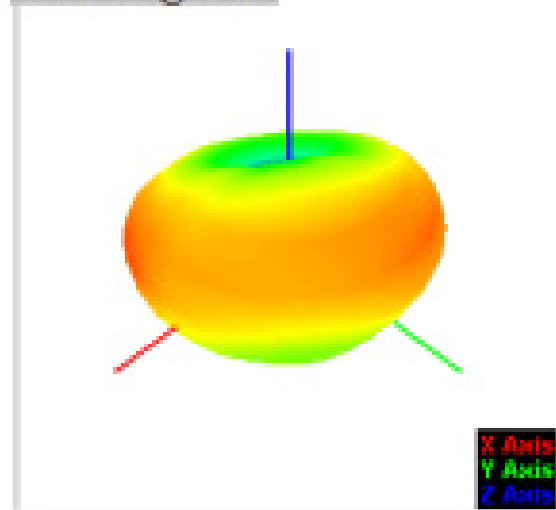
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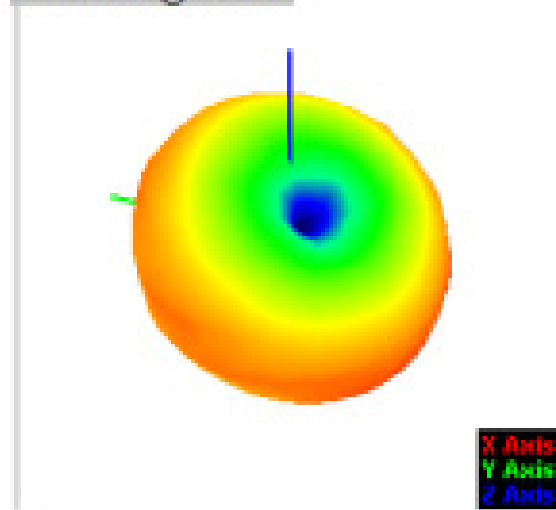
1.25  
-0.4  
-2.08  
-3.72  
-5.37  
-7.03  
-8.69  
-10.35  
-12  
-13.68  
-15.32  
-16.97  
-18.63  
-20.29  
-21.94  
-23.6  
-25.26  
-26.92

2460.00MHz@T45P45

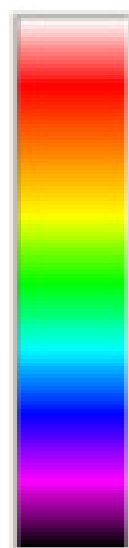


X Axis  
Y Axis  
Z Axis

2460.00MHz@T45P200

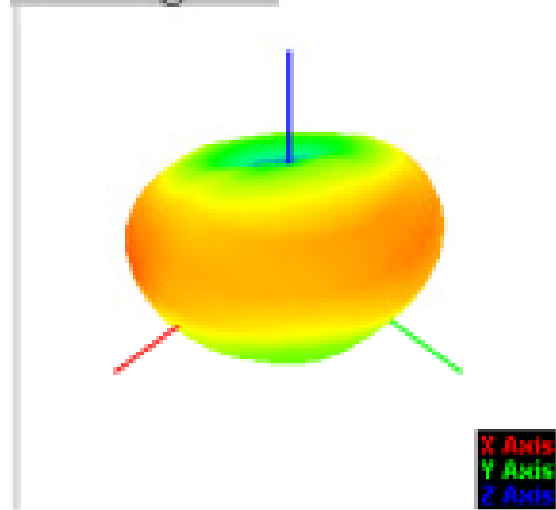


X Axis  
Y Axis  
Z Axis



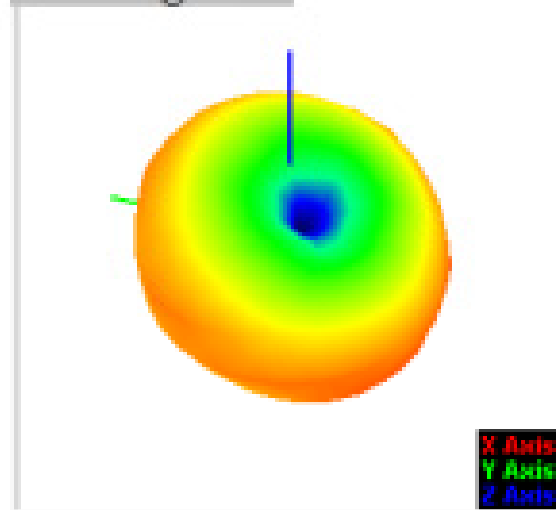
1.21  
-0.38  
-1.97  
-3.56  
-5.15  
-6.73  
-8.32  
-9.91  
-11.5  
-13.09  
-14.68  
-16.26  
-17.85  
-19.44  
-21.03  
-22.62  
-24.21  
-25.79

2470.00MHz@T45P45

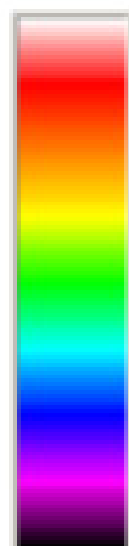


X Axis  
Y Axis  
Z Axis

2470.00MHz@T45P200

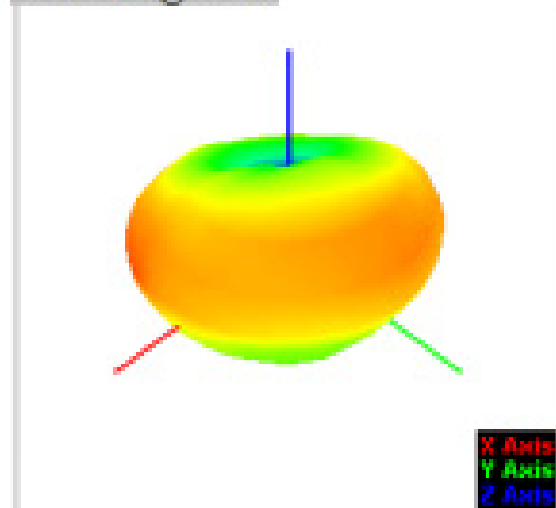


X Axis  
Y Axis  
Z Axis



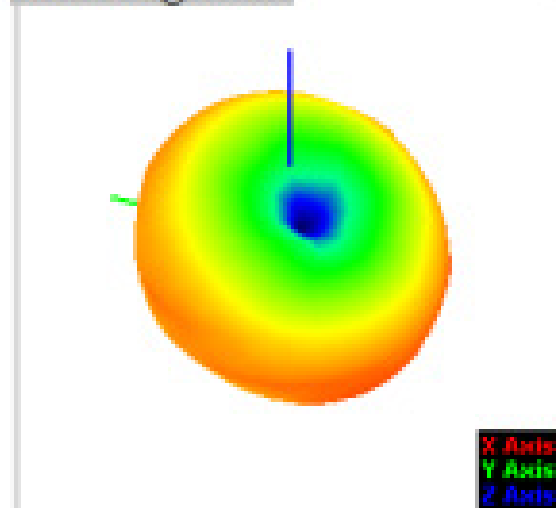
1.36  
-0.19  
-1.73  
-3.28  
-4.83  
-6.38  
-7.92  
-9.47  
-11.02  
-12.57  
-14.12  
-15.68  
-17.21  
-18.76  
-20.31  
-21.85  
-23.4  
-24.65

2480.00MHz@T45P45

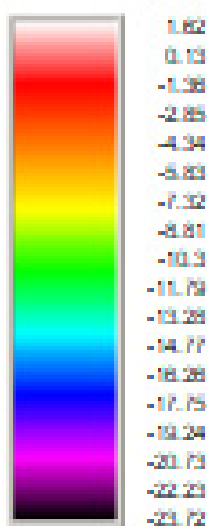


X Axis  
Y Axis  
Z Axis

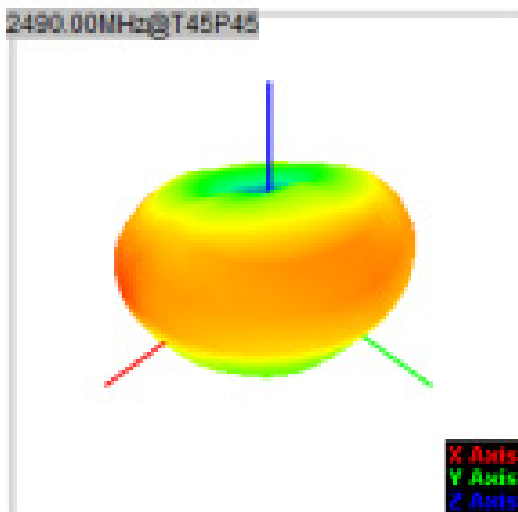
2480.00MHz@T45P200



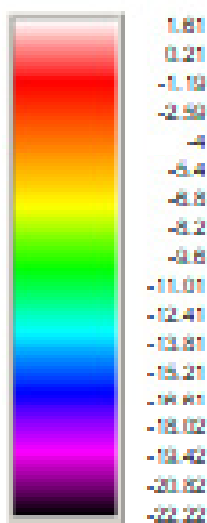
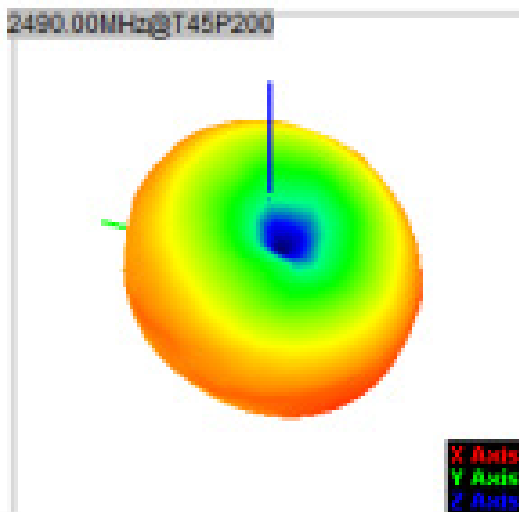
X Axis  
Y Axis  
Z Axis



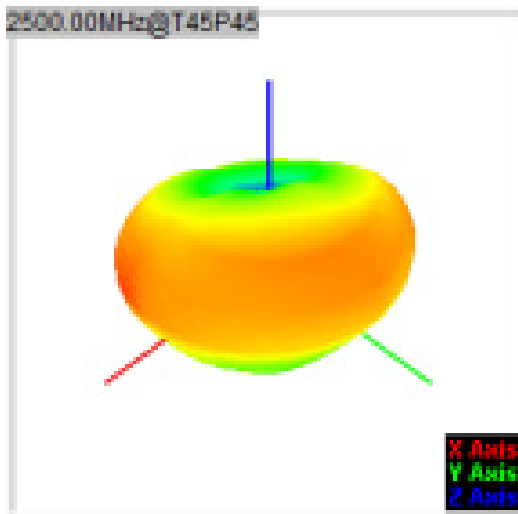
2490.00MHz@T45P45



2490.00MHz@T45P200



2500.00MHz@T45P45



2500.00MHz@T45P200

