Shenzhen HeYixun Technology Co., Ltd

Specification

Customer Name	Shenzhen hailingwei electronics co., ltd		
Customer Project Name	Mozart	HeYixun Project Name	Mozart
Customer P/N		HeYixun P/N	
Band	2400-2500MHZ		
Version	A0		
Designer Information			
RF Engineer	Xu Liang	EE Engineer	Shi Zhenhao
ME Engineer	Zhu Zengyuan		

HeYixun Approval				Customer Approval	
	Prepared By	Checked By	Approval By	Checked By	Approval By
Signature	Zhu Zengyuan				
Date	2024-08-06				

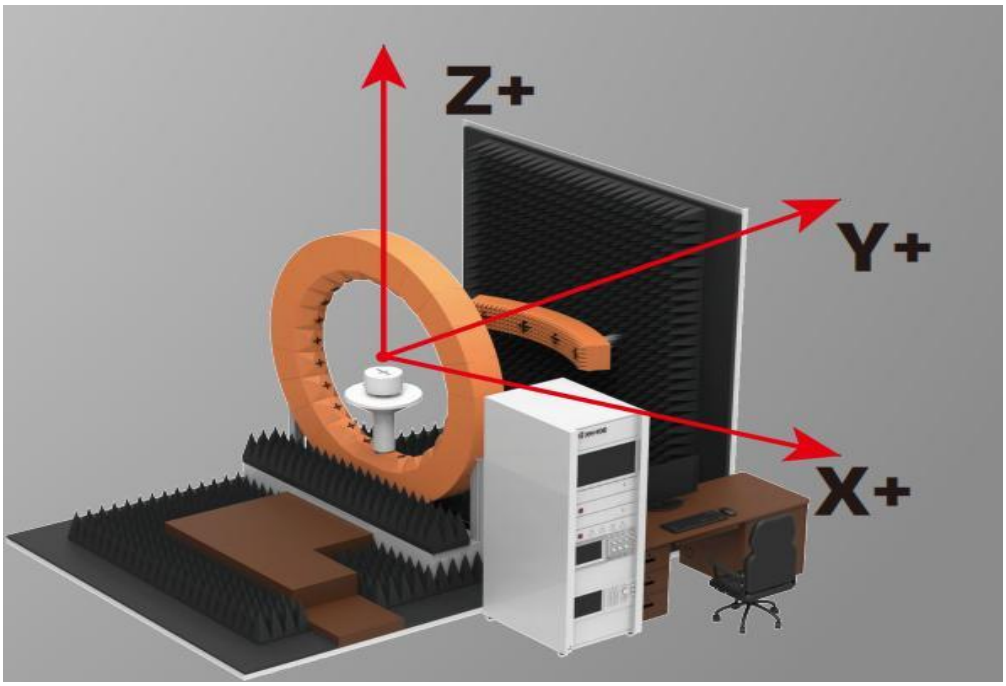
Change Log				
Version	Change Description	Person in Charge	Approval By	Date

RF Performance Test Report

Customer Name	Shenzhen hailingwei electronics co., ltd	Project Name	Mozart	HeYixun P/N	
Band	2400-2500MHZ	Test Date	2024-08-06	Inspector	Zhu Zengyuan

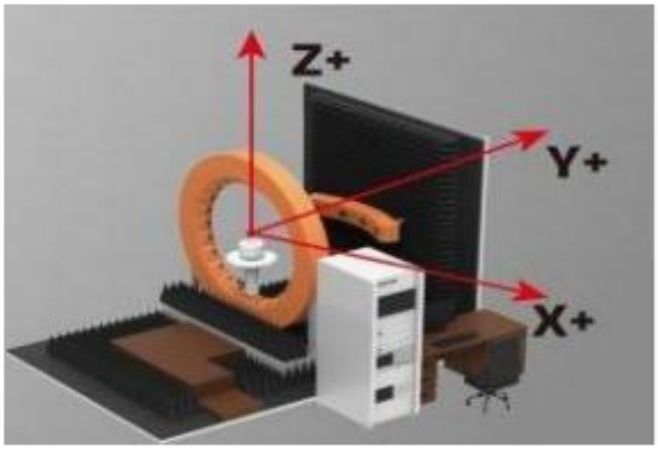
Antenna Test Equipment Introduction

Test of antenna input characteristics using **Agilent E5071C and Agilent 5071C** vector network analyzer; The radiation pattern of the antenna are tested using the ETS starlab 3D near field Anechoic Chamber, and the instrument is used to agilent8960 E5515 and Agilent E4438C. The test coordinates of the darkroom are as follows:



TestSystem

Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5062A
OTA Test	TRP&TIS	Agilent 8960 E5515C& Agilent 4438C&CMW500 ETS&SATIMO
Gain & Efficiency	Gain & Efficiency	ETS&SATIMO Agilent 5071C

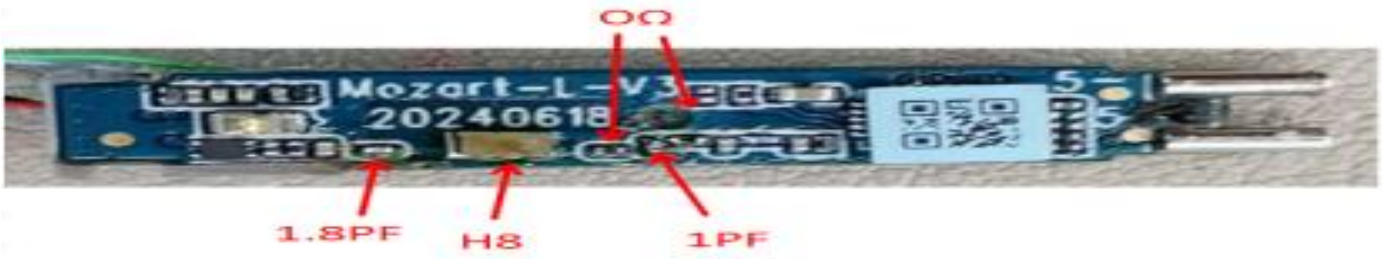


address: 1903-1905, Building 2, Jiufang Square, Tiezai Road, Gongle Community, Xixiang Street, Bao 'an District, Shenzhen TEL: 0755-23591525 FAX: 0755-23591525

L


喇叭线不绕线理进结构槽内即可
电池线顺时针方向绕4圈(360度为一圈)
电池正极极耳朝喇叭方向
正极极耳对左上角结构槽定位
盖上喇叭后，喇叭线放在下方蓝色区域位置，如下图所示

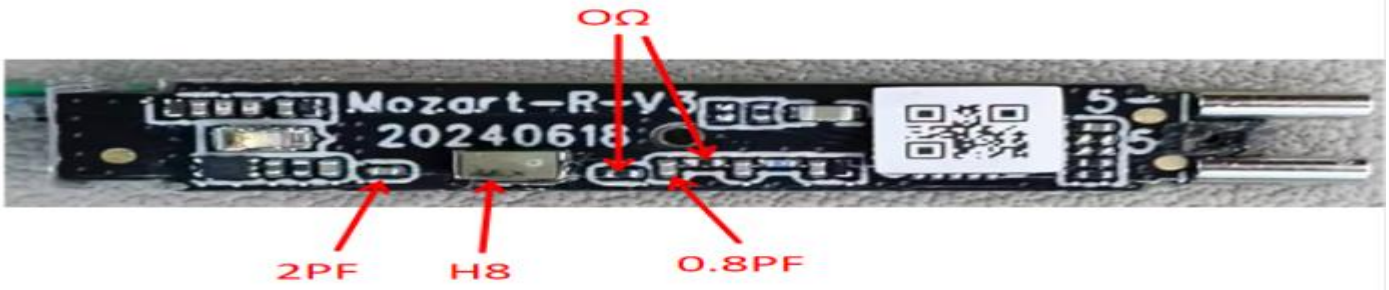
L


Mozart-L-V3
20240618
1.8PF
H8
1PF

R

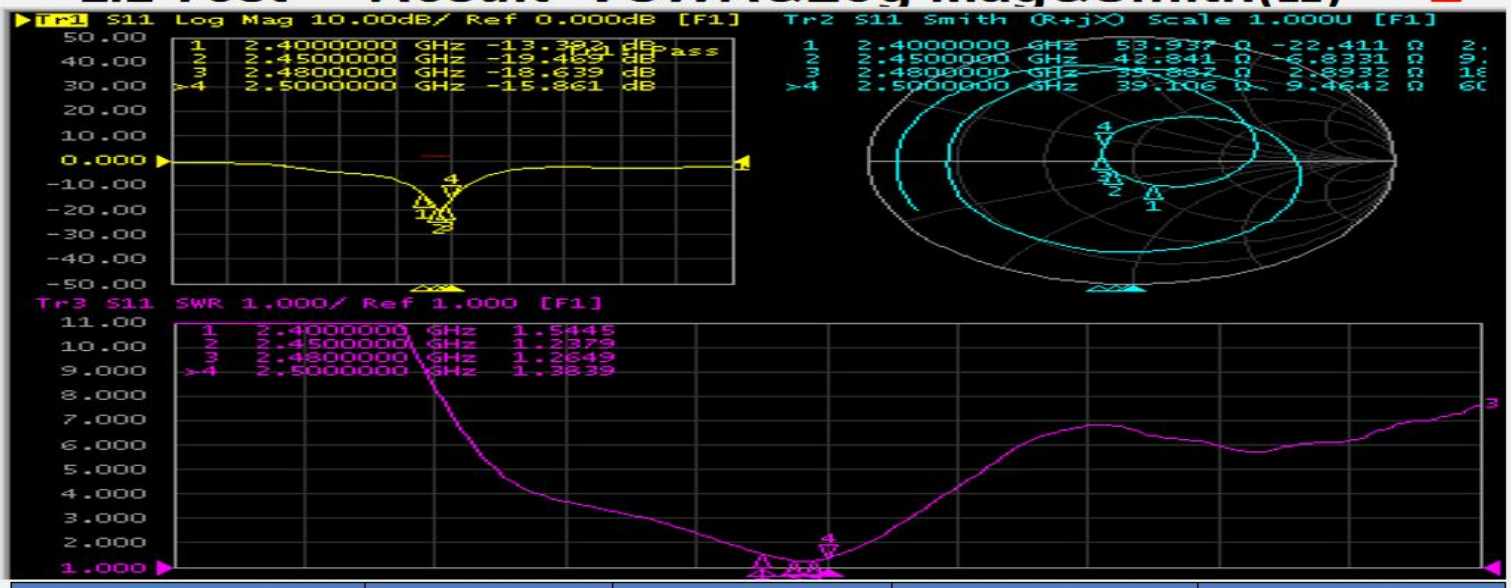

喇叭线不绕线理进结构槽内即可
电池线顺时针方向绕4圈(360度为一圈)
电池正极极耳朝喇叭方向
负极极耳对右上角结构槽定位
盖上喇叭后，喇叭线放在下方蓝色区域位置，如下图所示

R


Mozart-R-V3
20240618
2PF
H8
0.8PF

自由

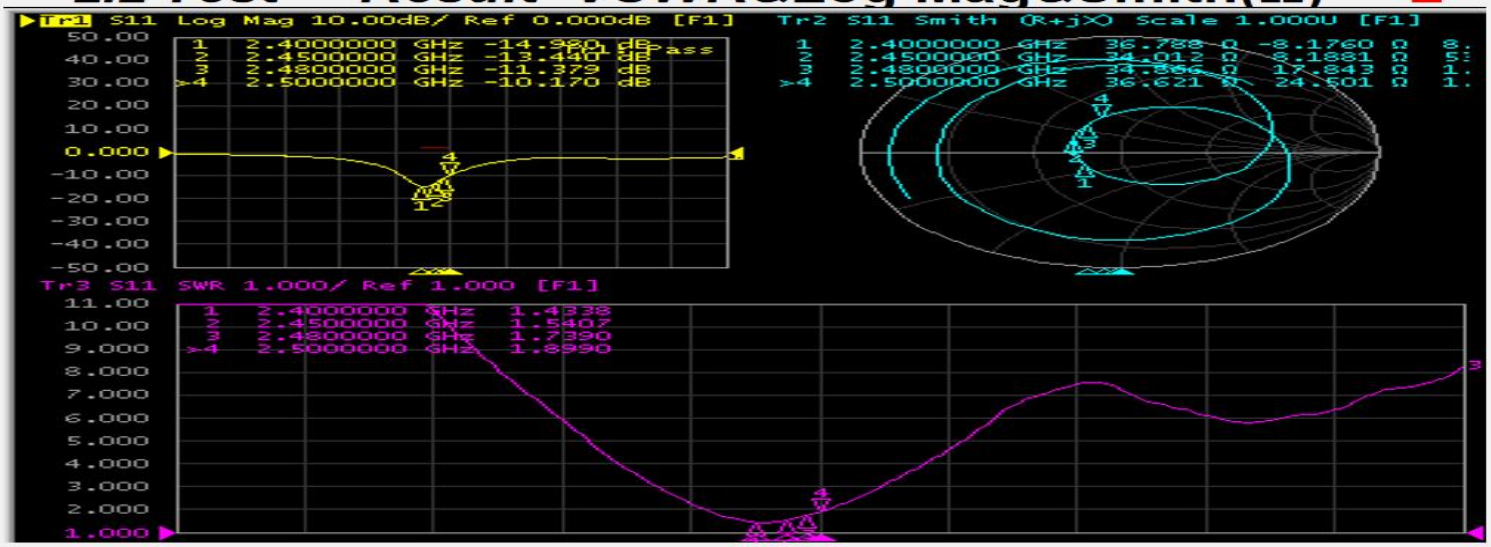
2.2 Test Result VSWR&Log Mag&Smith(Ω) L



Frequency (MHz)	2400	2450	2480	2500
Log Mag	-13.39	-19.46	-18.63	-15.86
Smith(Ω)	53.93	42.84	39.88	39.10
VSWR	1.54	1.23	1.26	1.38

人头

2.2 Test Result VSWR&Log Mag&Smith(Ω) L



Frequency (MHz)	2400	2450	2480	2500
Log Mag	-14.98	-13.44	-11.37	-10.17
Smith(Ω)	36.78	34.01	34.86	36.62
VSWR	1.43	1.54	1.73	1.89

3.Test Result

3.1 Gain & Efficiency

L

自由测试

Frequency (MHz)	Efficiency (%)	Max GAIN (dBi)
2400	27.01	0.2
2410	27.18	-0.57
2420	28.12	-0.56
2430	28.12	-0.02
2440	28.23	0.22
2450	30.27	0.31
2460	29.79	1.24
2470	29.24	0.1
2480	27.81	0.58
2490	30.69	-0.16
2500	28.25	-0.01

模拟人头

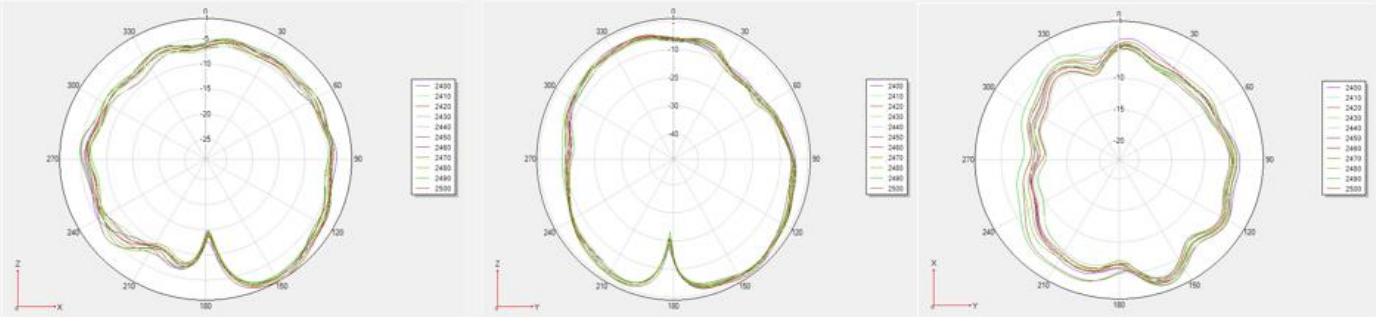
Frequency (MHz)	Efficiency (%)	Max GAIN (dBi)
2400	10.42	-8.41
2410	11.06	-8.84
2420	11.12	-8.82
2430	12.49	-8.39
2440	12.87	-8.58
2450	13.94	-7.71
2460	13.37	-7.86
2470	13.29	-7.88
2480	13.59	-8.36
2490	12.78	-8.02
2500	11.91	-8.57

4.1.Test Result

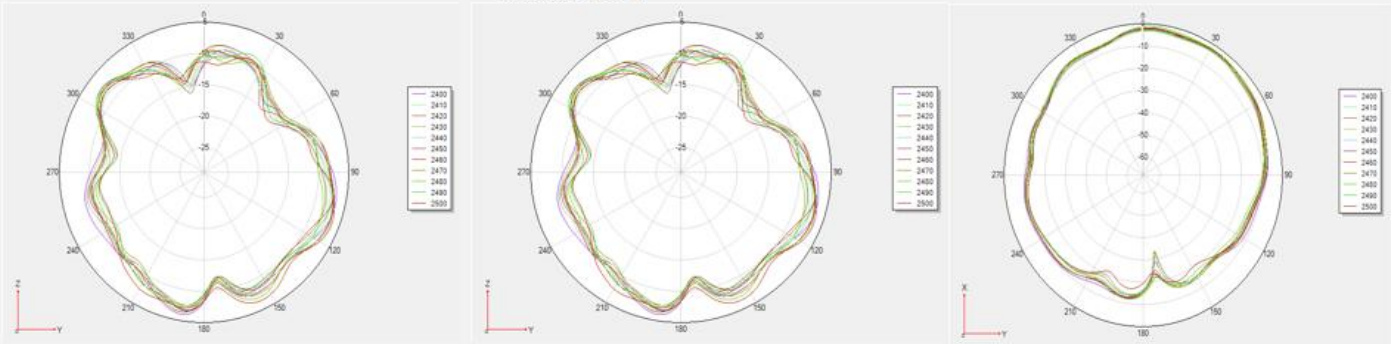
L

4.2 2D Pattern----BTANT

自由



模拟人头



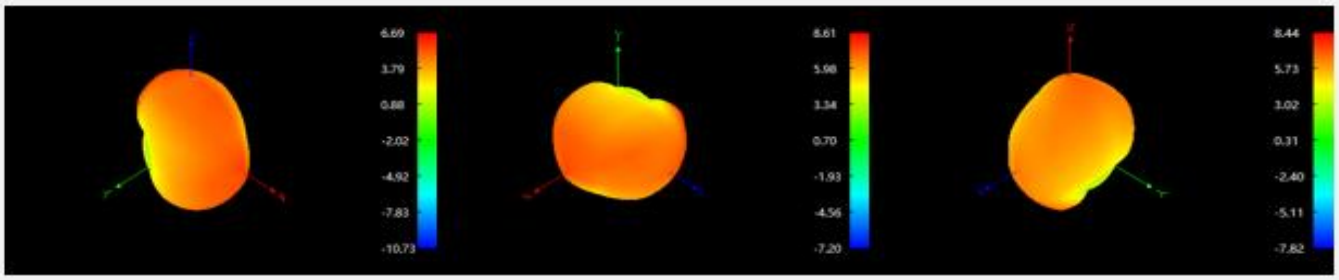
4.OTA Data

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band		Channel	TRP(dBm)	TIS(dBm)
自由测试BT	L	0	4.66	-90.77
		39	5.12	-91.26
		78	4.22	-90.32
模拟人头BT	L 	0	-2.41	-83.04
		39	-2.19	-83.81
		78	-2.71	-83.21

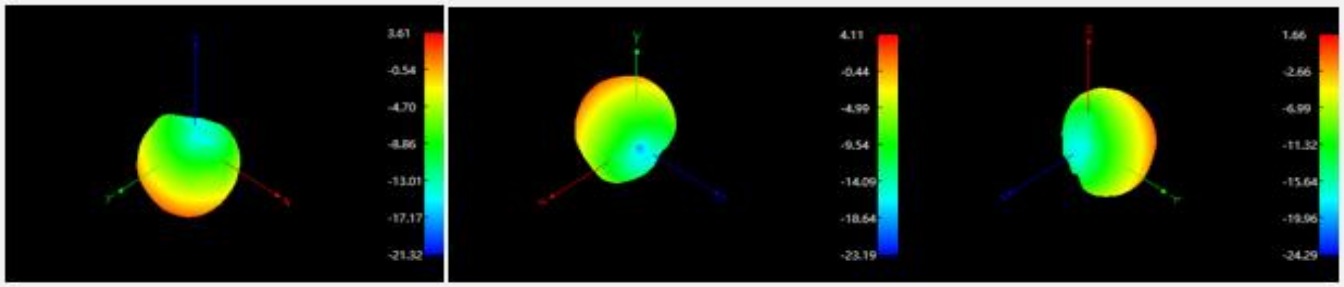
4.1.Test Result

自由

L--TRP



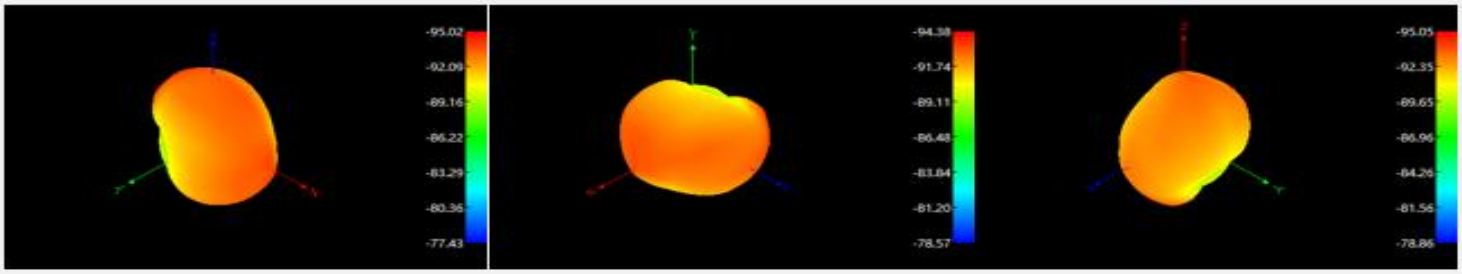
模拟人头



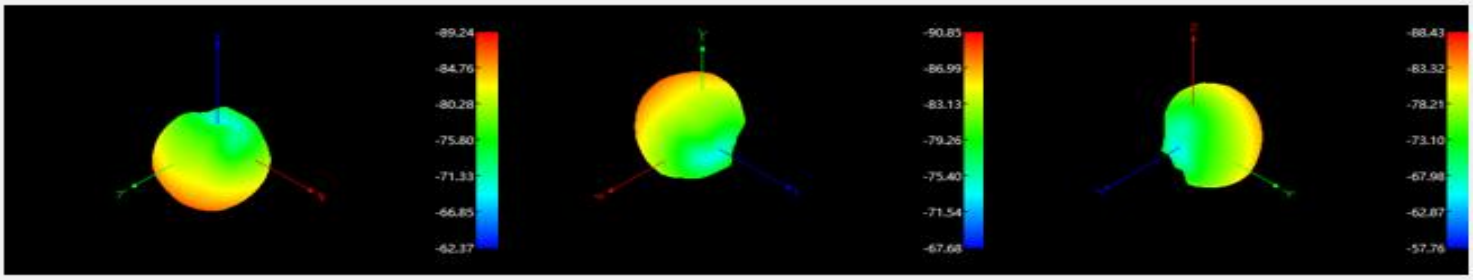
4.1.Test Result

L-TIS

自由

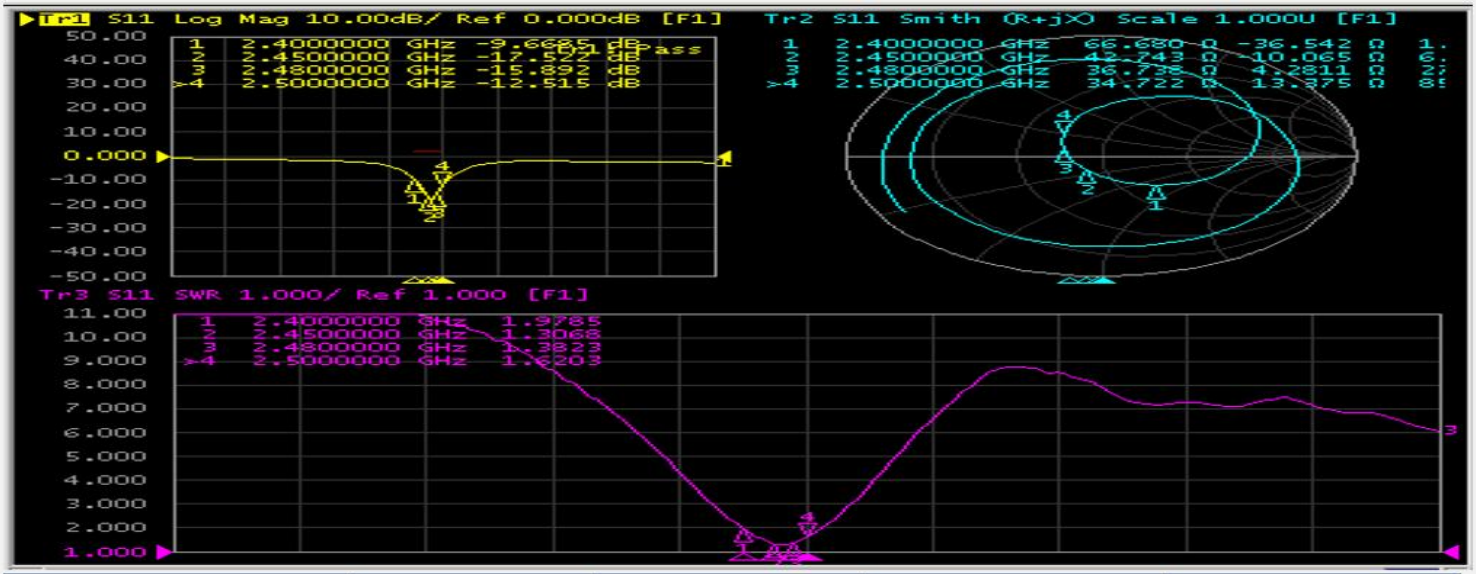


模拟人头



自由

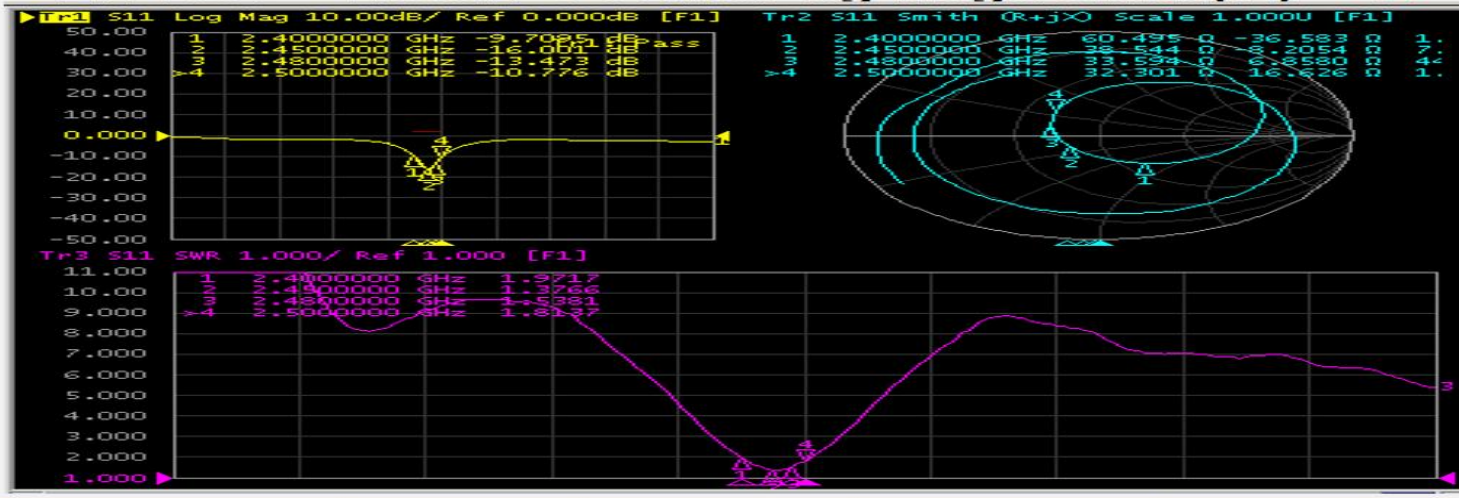
2.2 Test Result VSWR&Log Mag&Smith(Ω) R



Frequency (MHz)	2400	2450	2480	2500
Log Mag	-9.66	-17.52	-15.89	-12.51
Smith(Ω)	66.68	42.74	36.73	34.72
VSWR	1.97	1.30	1.38	1.62

人头

2.2 Test Result VSWR&Log Mag&Smith(Ω) R



Frequency (MHz)	2400	2450	2480	2500
Log Mag	-9.70	-16.00	-13.47	-10.77
Smith(Ω)	60.49	38.54	33.59	32.30
VSWR	1.97	1.37	1.53	1.81

3.Test Result

3.1 Gain & Efficiency

R

自由测试

Frequency (MHz)	Efficiency (%)	Max GAIN (dBi)
2400	26.66	0.23
2410	26.83	-0.01
2420	27.44	-0.02
2430	28.41	0.78
2440	29.76	1.15
2450	32.21	1.75
2460	32.21	2.66
2470	32.28	1.86
2480	31.05	2.23
2490	33.96	1.61
2500	31.62	1.95

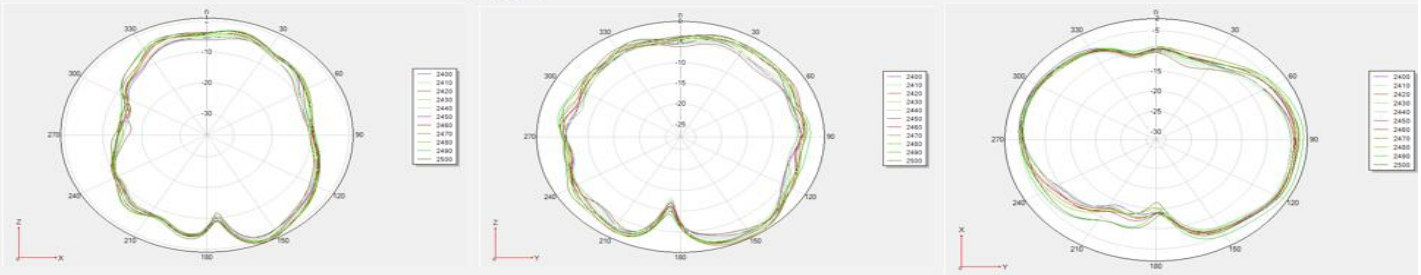
模拟人头

Frequency (MHz)	Efficiency (%)	Max GAIN (dBi)
2400	11.44	-8.11
2410	11.92	-8.41
2420	11.03	-8.4
2430	12.13	-7.67
2440	13.19	-7.63
2450	13.18	-6.57
2460	13.14	-6.59
2470	13.12	-6.6
2480	13.34	-6.99
2490	12.48	-6.43
2500	12.57	-6.87

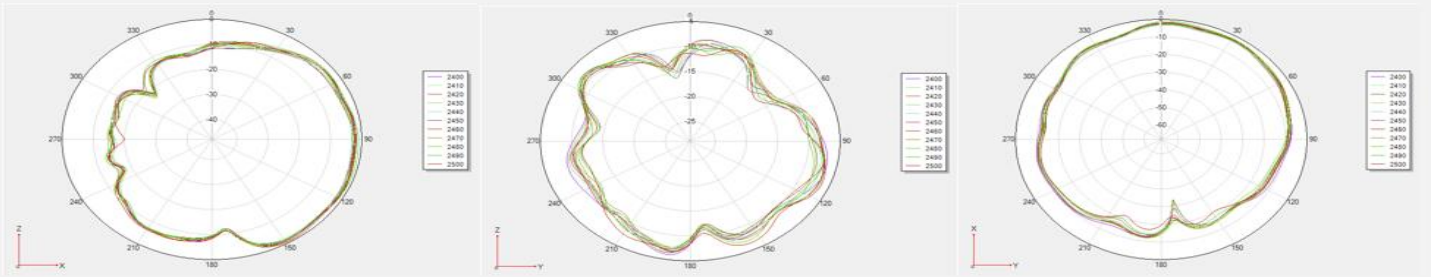
4.1.Test Result

4.2 2D Pattern----BTANT R

自由



模拟人头



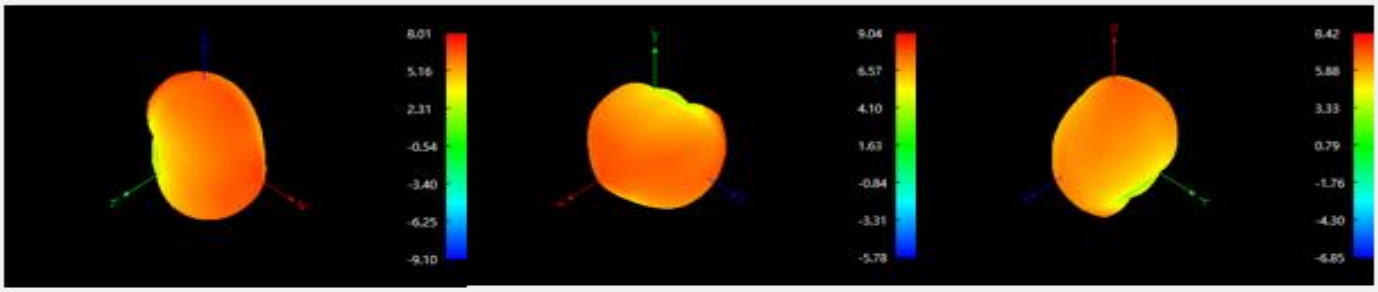
4.OTA Data

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band		Channel	TRP(dBm)	TIS(dBm)
自由测试BT	R	0	4.86	-90.52
		39	5.24	-90.92
		78	4.14	-90.15
模拟人头BT	R 	0	-2.35	-82.87
		39	-2.29	-83.54
		78	-2.62	-83.19

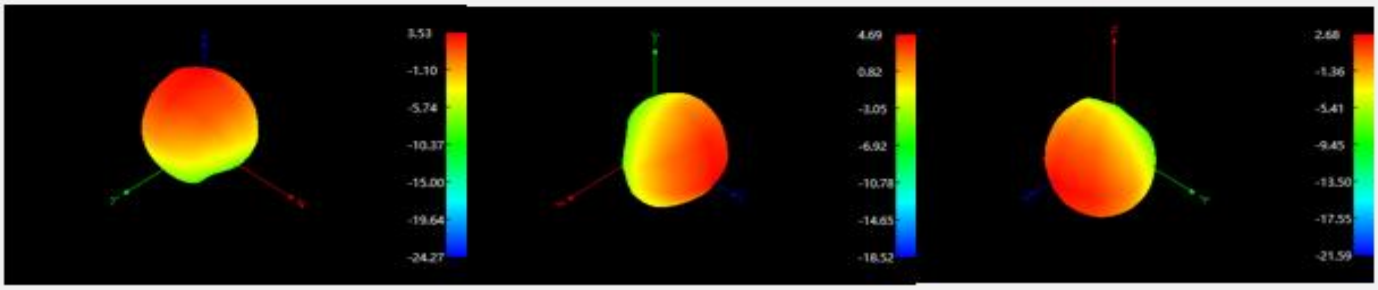
4.1.Test Result

自由

R--TRP



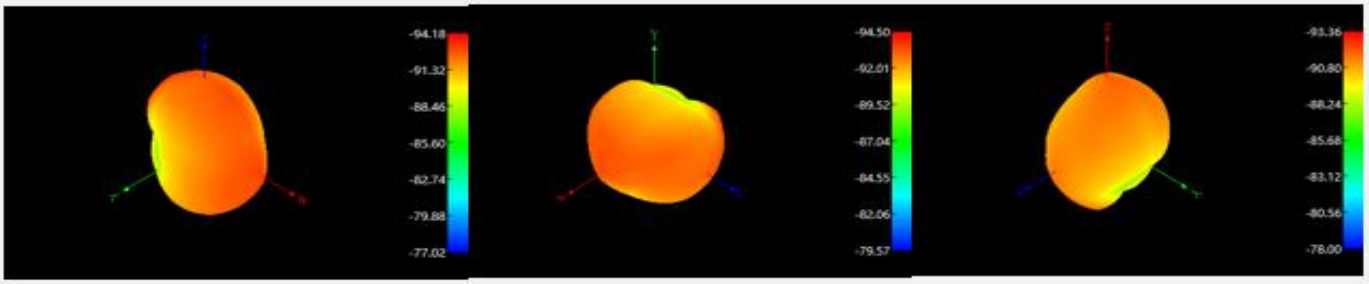
模拟人头



4.1.Test Result

自由

R-TIS



模拟人头