

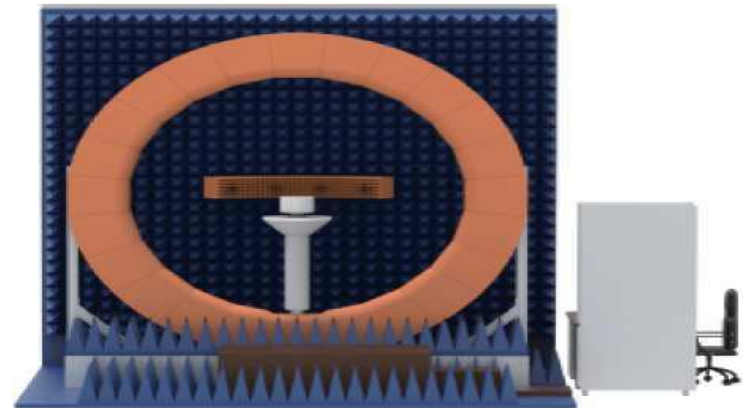
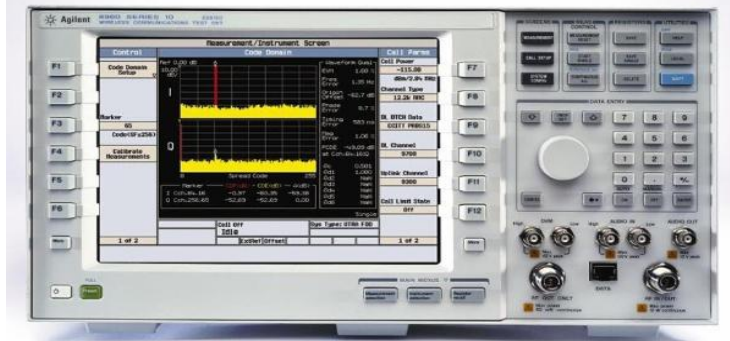
HELIX 合立讯 Antenna Specification



Customer	方成
Project	N1-3
Antenna Revision	A0
Prepared by	18814303605
Checked by	
Date :	2025. 04. 15

2. Test System

Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5071B
OTA Test	TRP&TIS	Agilent 8960 & CMW500 STIMO
Gain & Efficiency	Gain & Efficiency	SATIMO Agilent 5071C



Purpose

This report is to measure the performance of antenna for **N1-3** The antenna operating frequency at 2400MHz-2500MHz 。 All test data are showed as below.

Content

1. Product Overview & Dimension
2. Test system
3. Test Result

3.1 S11 Parameter

3.2 Gain & Efficiency

3.3 2D Pattern

4. OTA

4.1 Test Result

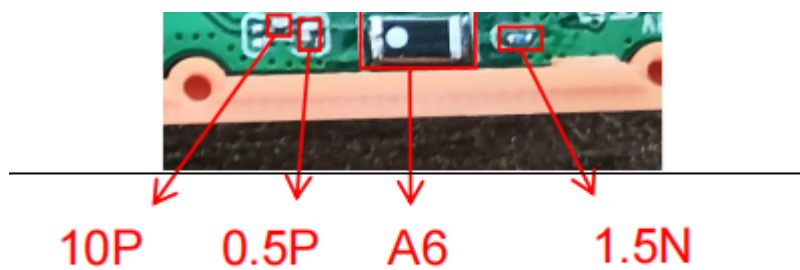
4.2 2D Pattern



Antenna manufacturer: Shenzhen Helixun Technology Co., LTD.
address : Room 1004, Building 1, Jinhuanu Mansion, No. 56, Tiezi Road, Gongle Community,
Xixiang Sub-district, Bao 'an District, Shenzhen City

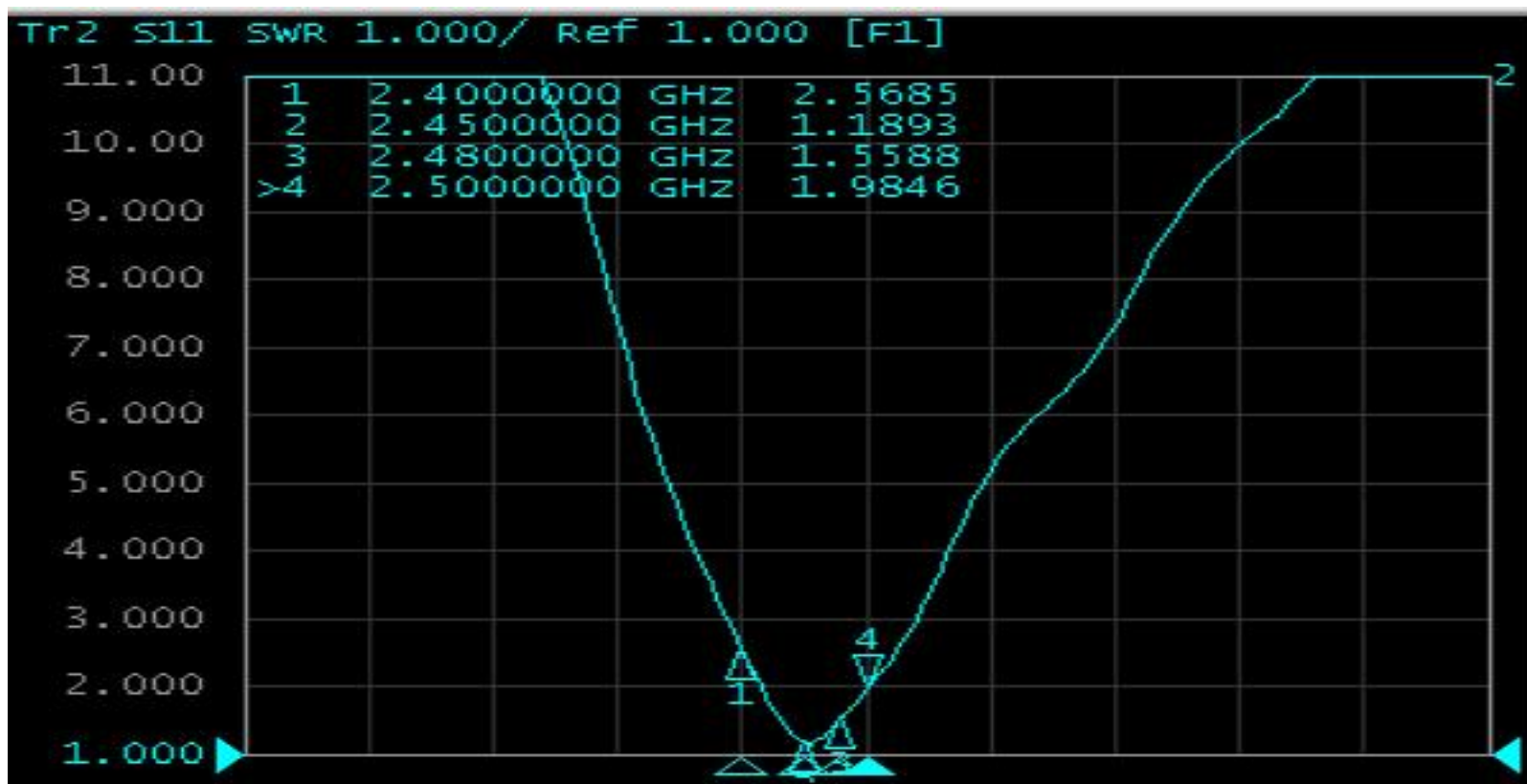
N1-3

匹配图



3.1 Test Result

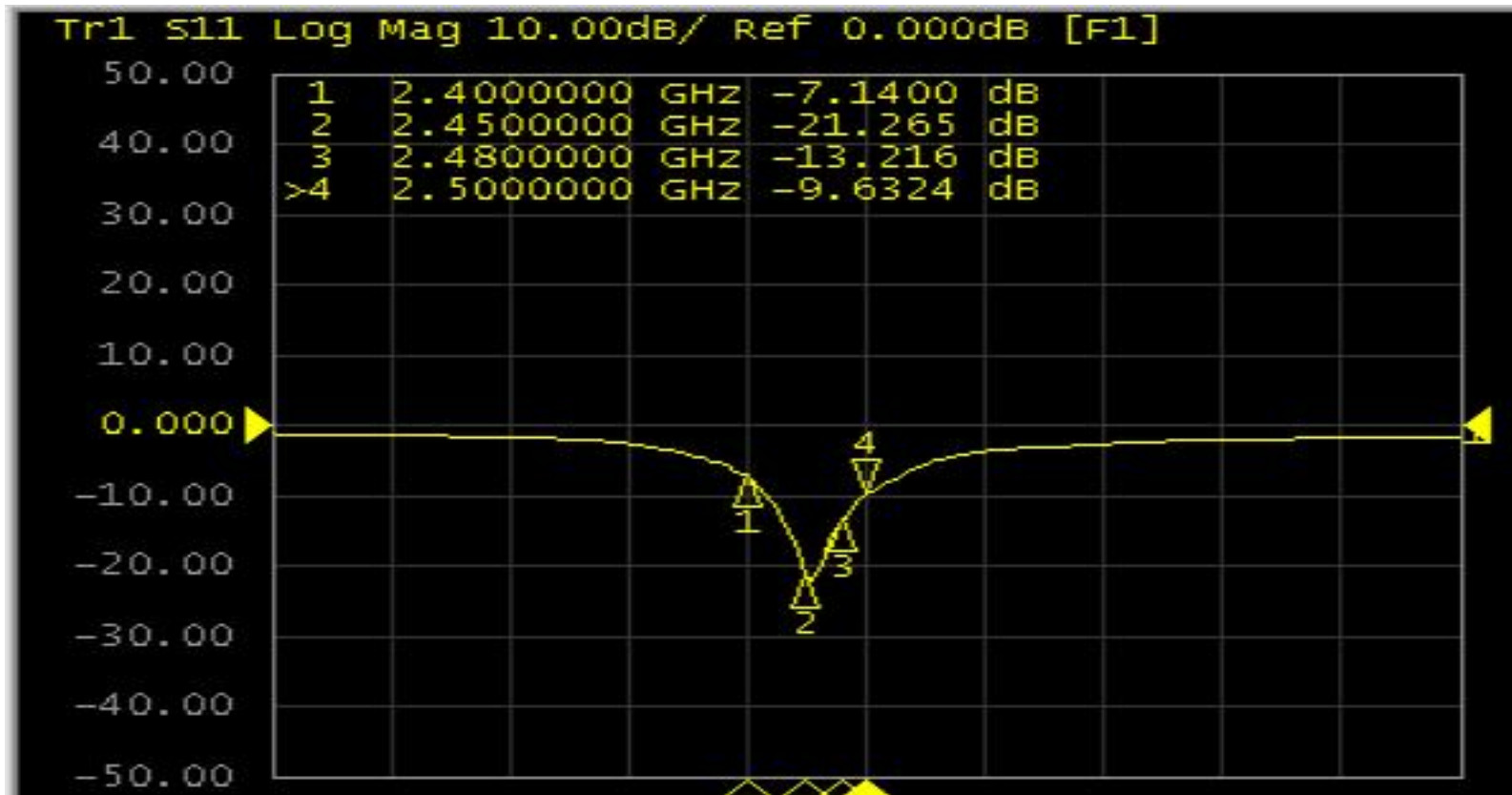
1 .S11 Parameter-VSWR



Frequency (MHz)	2400	2450	2480	2500
VSWR	2.56	1.18	1.55	1.98

3.1 Test Result

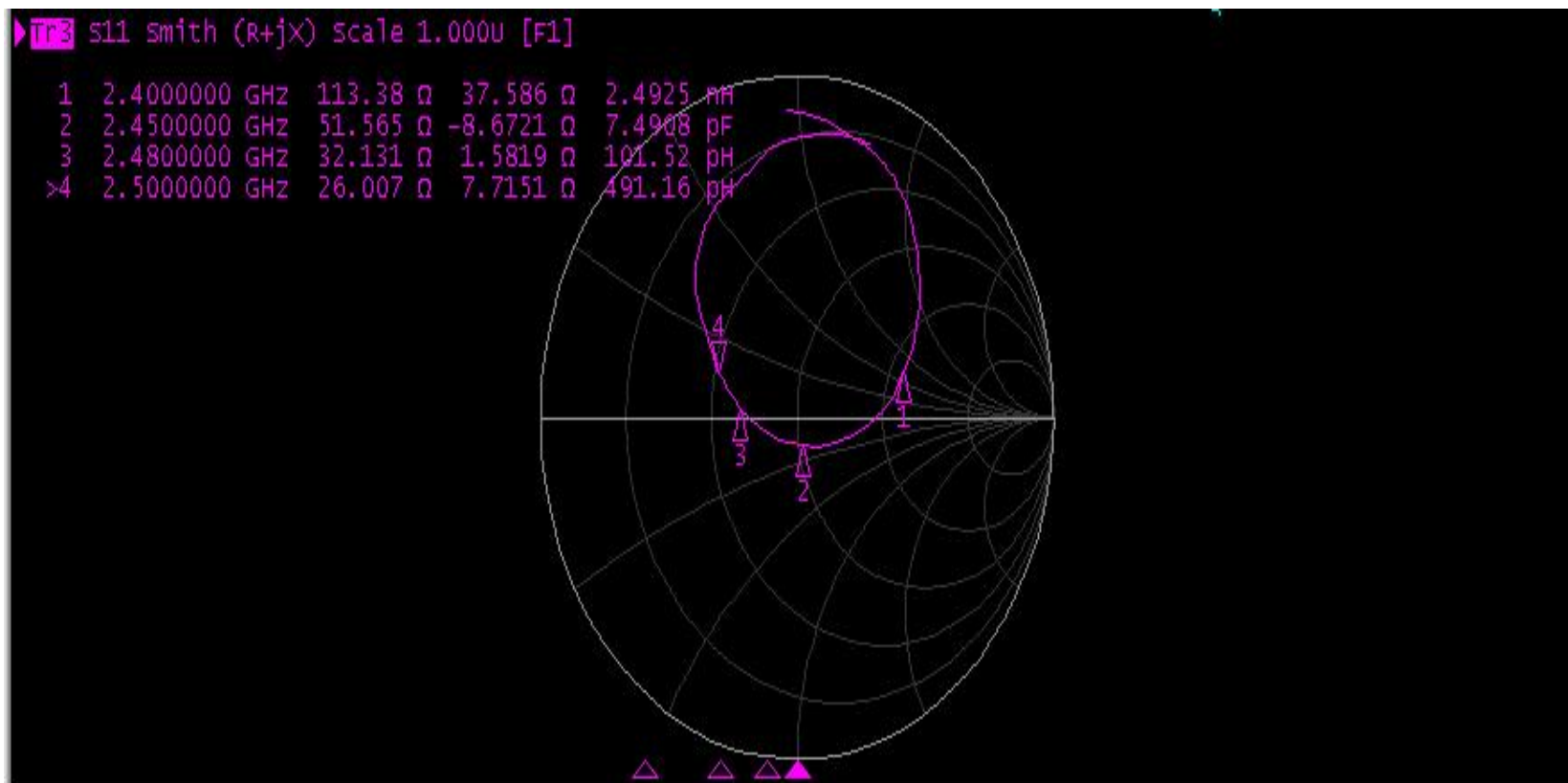
2. S11 Parameter-Log Mag



Frequency (MHz)	2400	2450	2480	2500
Log Mag	-7.14	-21.26	-13.21	-9.63

3.1 Test Result

3.S11 Parameter-Smith



Frequency (MHz)	2400	2450	2480	2500
Smi th(Ω)	113.38	51.56	32.13	26.00

3.2 Test Result

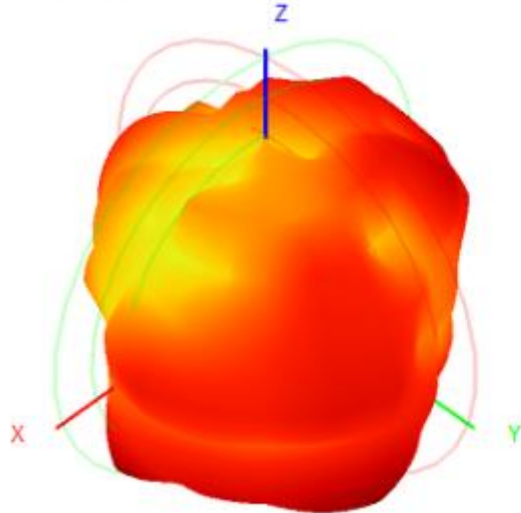
1 Gain & Efficiency—**ANT**

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	32.94	-0.47
2410	33.55	0.02
2420	34.16	0.42
2430	35.67	0.92
2440	36.40	1.34
2450	37.01	1.72
2460	36.45	1.99
2470	35.32	2.23
2480	34.75	2.01

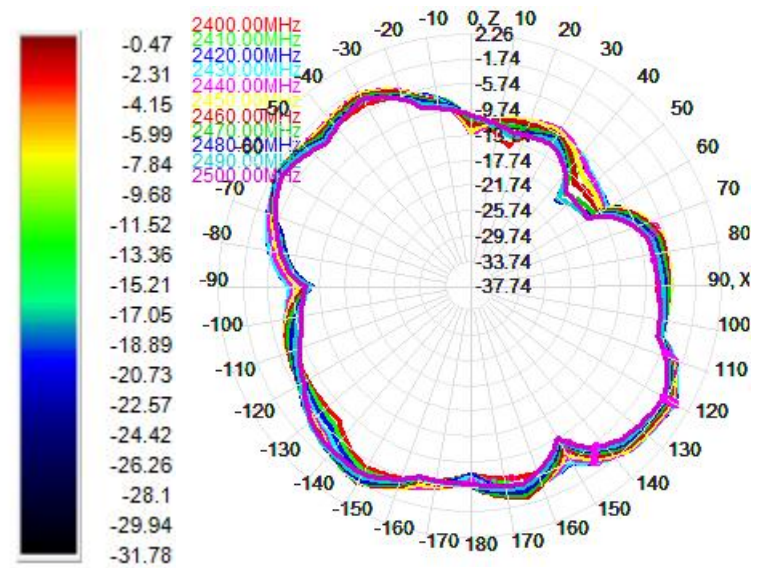
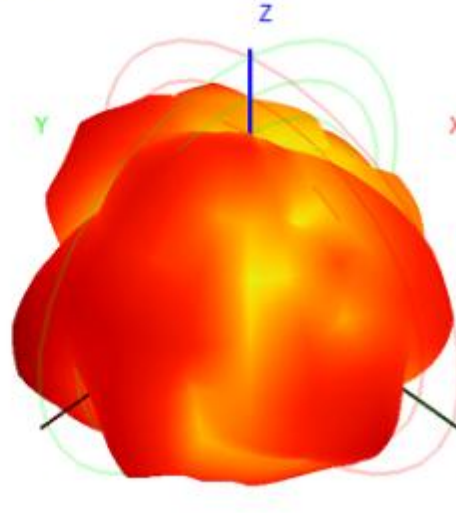
3.3 Test Result

1 2D Pattern——BTANT

2400.0MHz Total, Eff: 32.9%



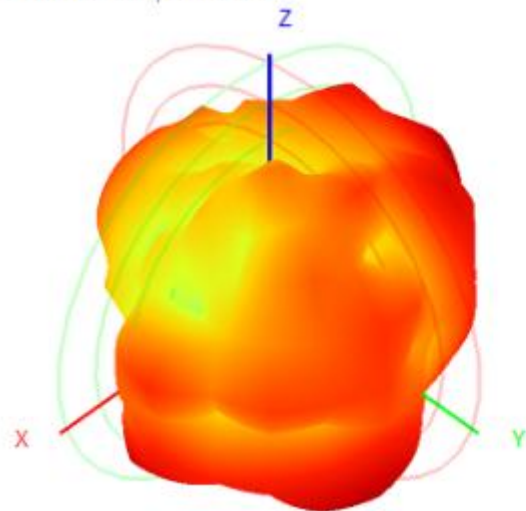
Back View



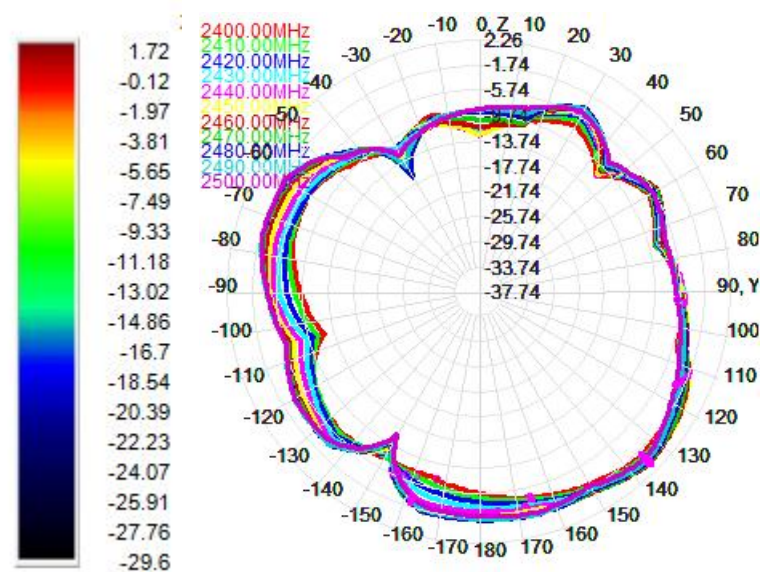
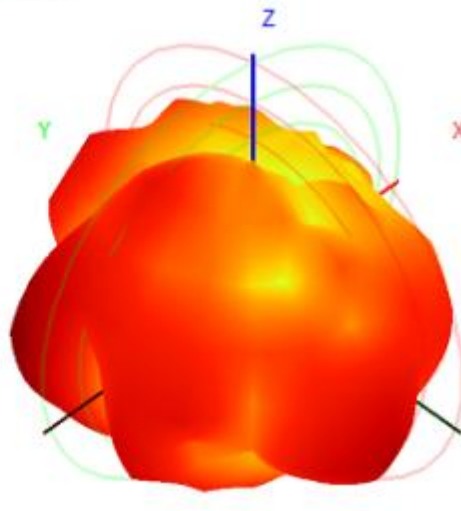
3.3 Test Result

2 2D Pattern—BTANT

2450.0MHz Total, Eff: 37.0%



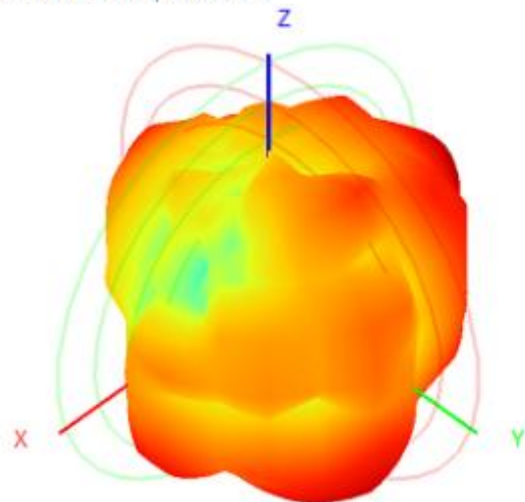
Back View



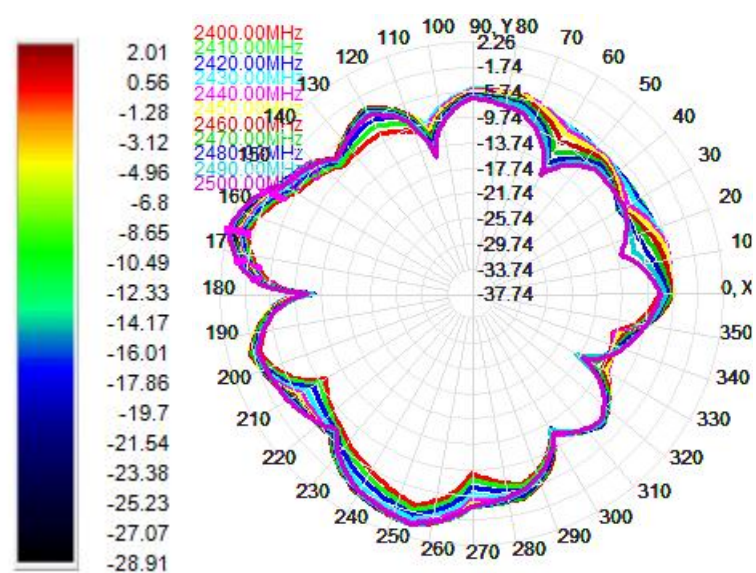
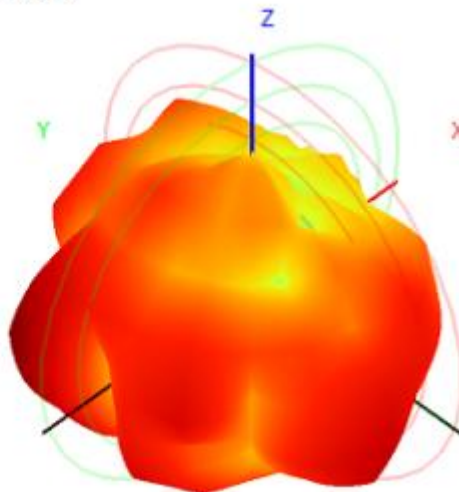
3.3 Test Result

3 2D Pattern—BTANT

2480.0MHz Total, Eff: 34.8%



Back View



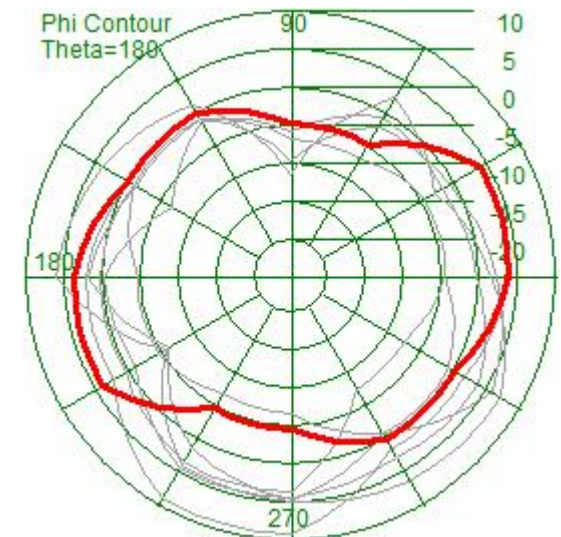
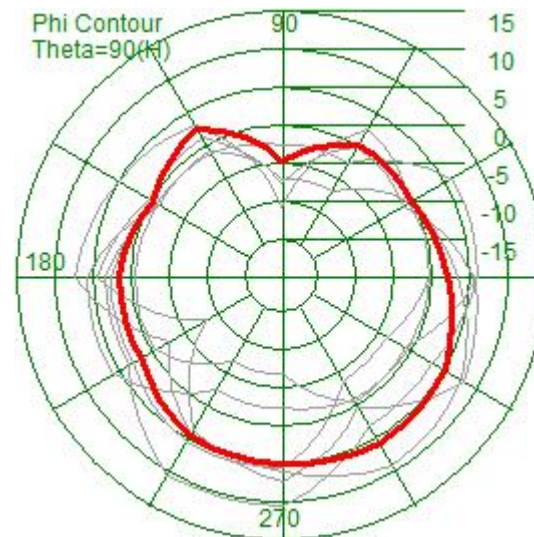
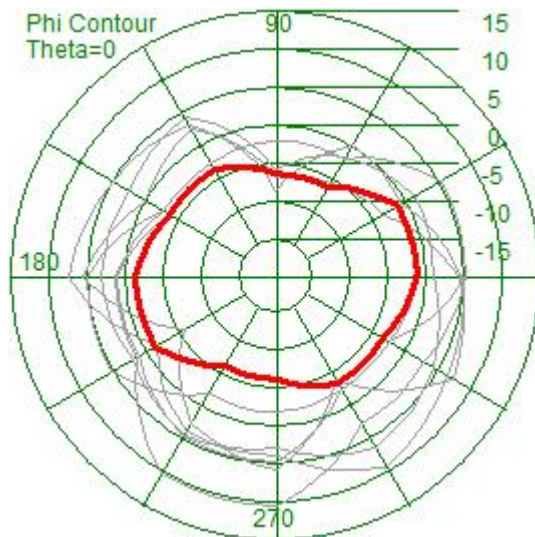
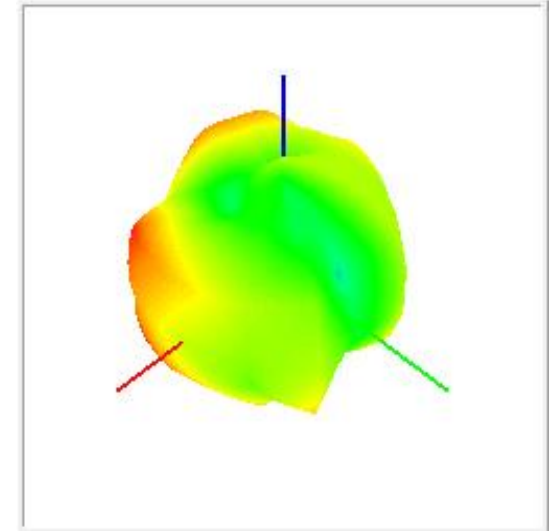
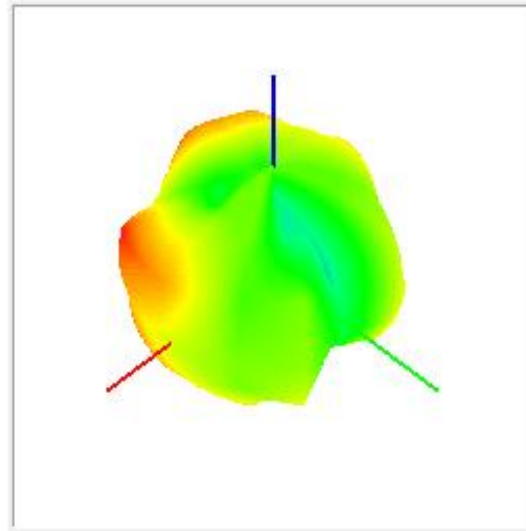
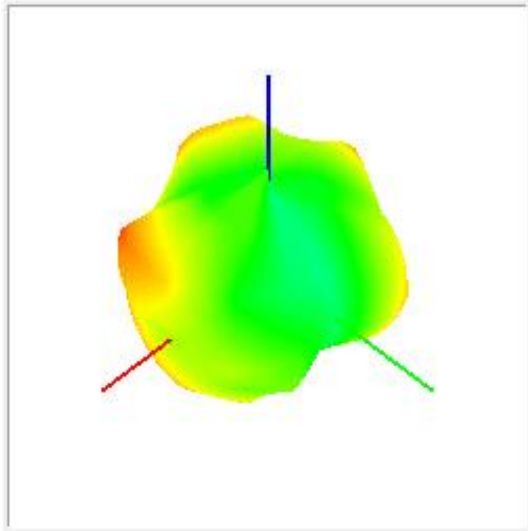
4.1 OTA Data

Test Equipment:	R&S CMW500		
Test Condition:	2 D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
BT	0	3.03	-90.23
	39	3.40	-90.64
	78	2.75	-89.66

4.2 Test Result

1 2D Pattern——**BTANT**

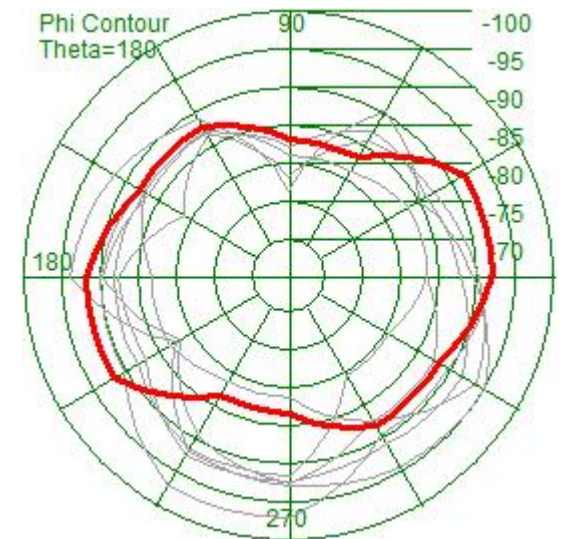
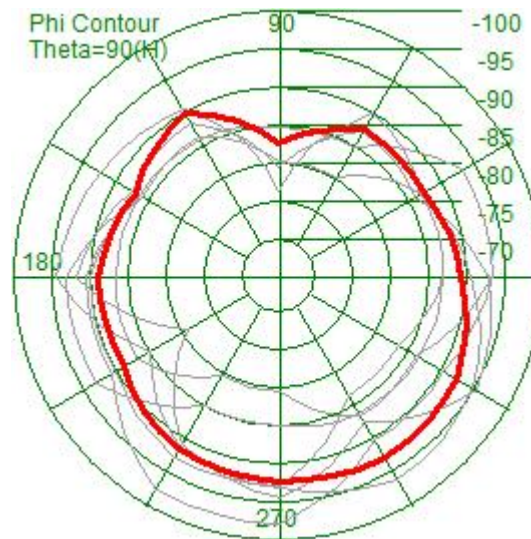
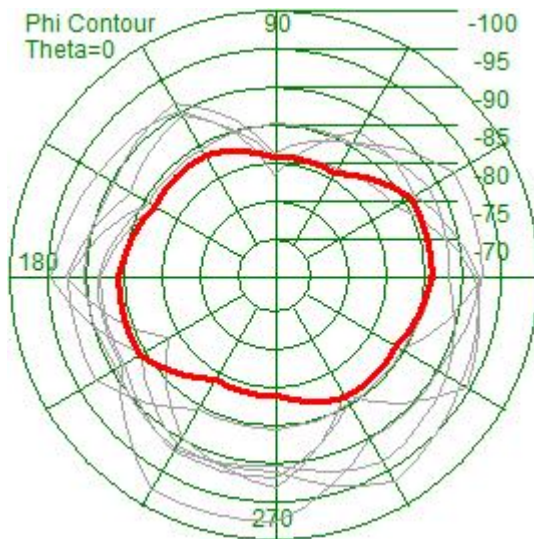
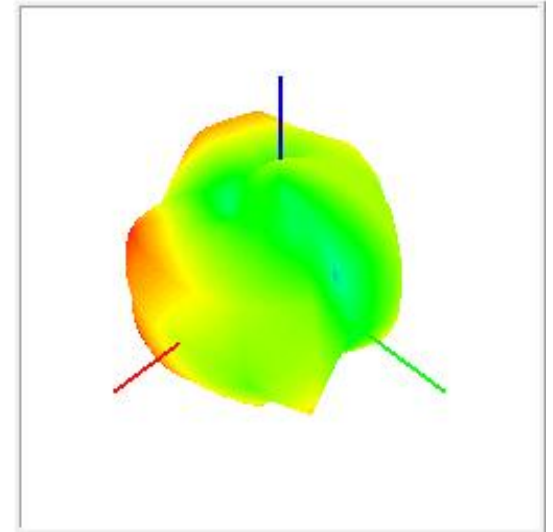
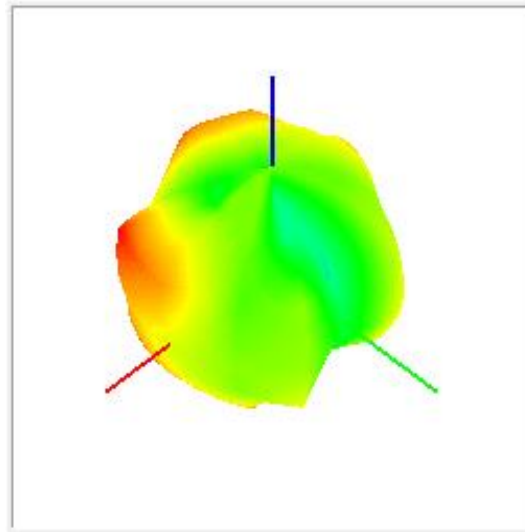
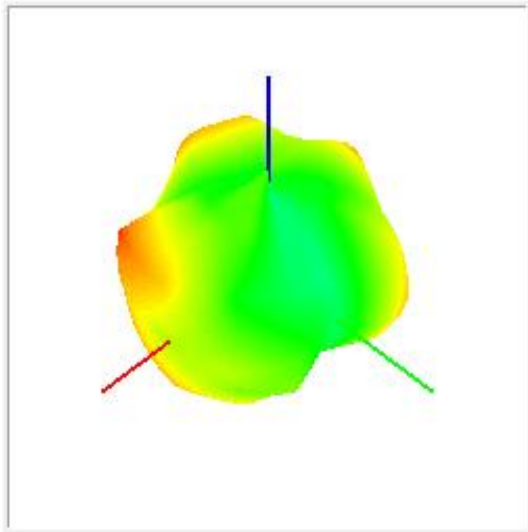
TRP



4.2 Test Result

2 2D Pattern——**BTANT**

TIS



Thank you!