



Customer	佳利得
Project	TWS991
Antenna Revision	A0
Prepared by	18814303605
Checked by	
Date :	2024. 11. 11

2.TestSystem

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



Purpose

This report is to measure the performance of antenna for **TWS991** 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
4. Test Result

4.1 S11 Parameter-VSWR

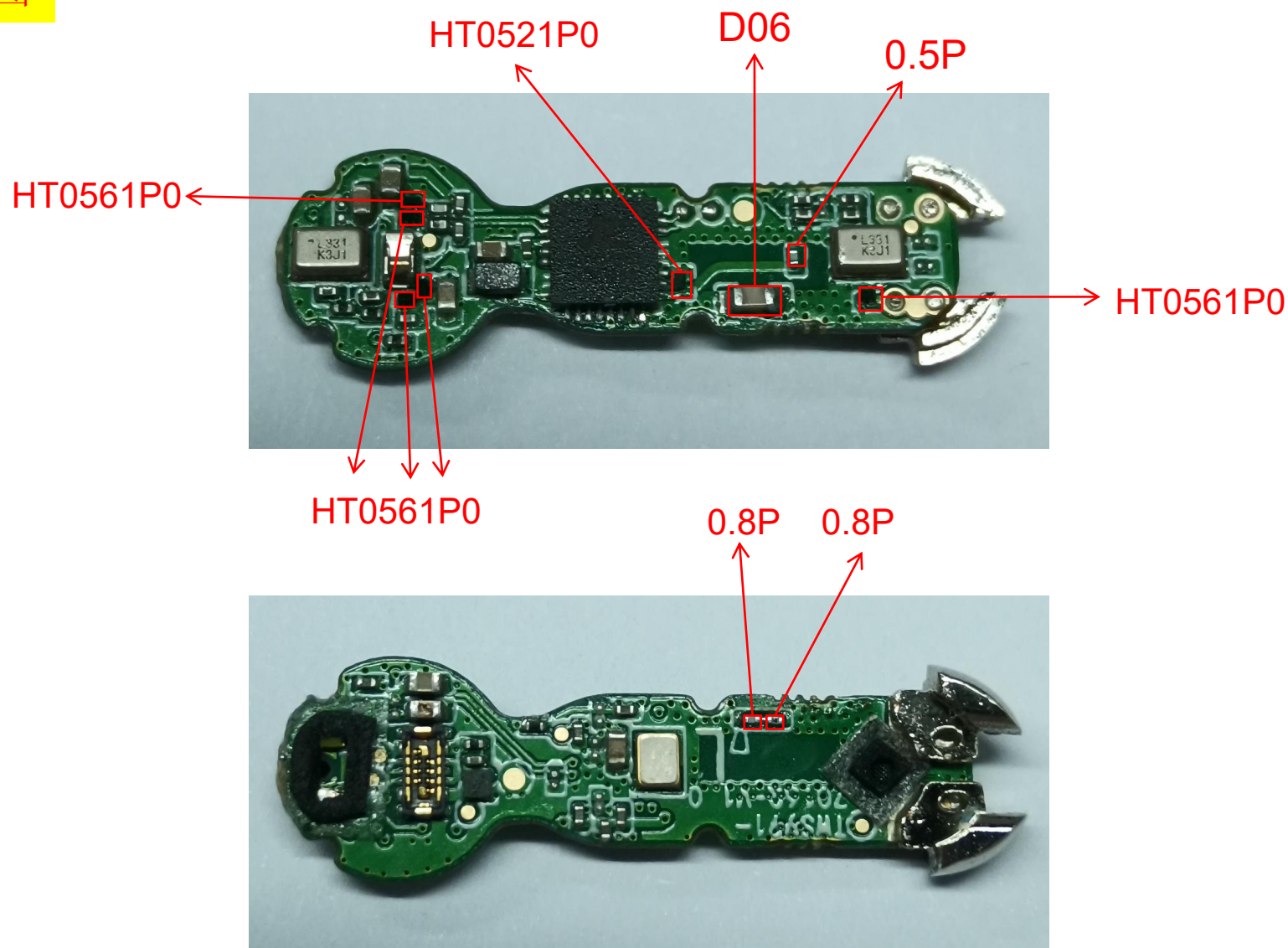
4.2 Gain & Efficiency

4.3 2D Pattern



TWS991

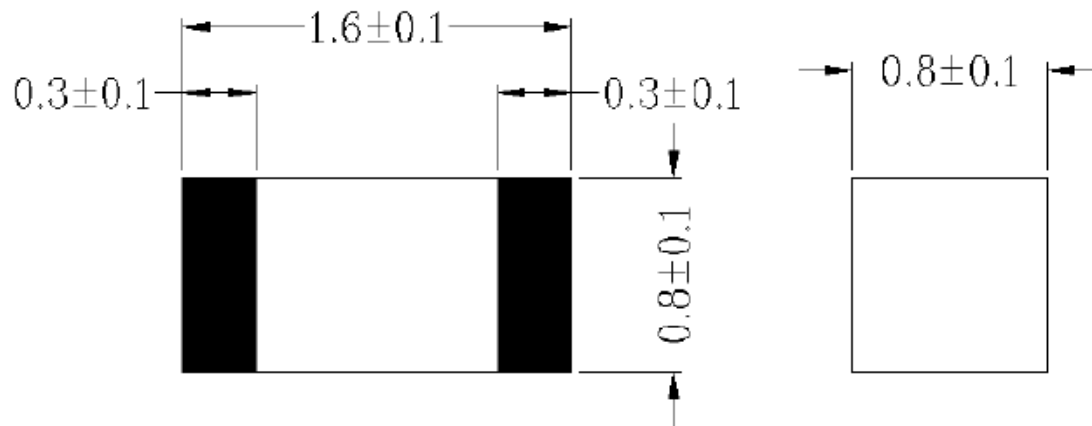
匹配图



Antenna size diagram

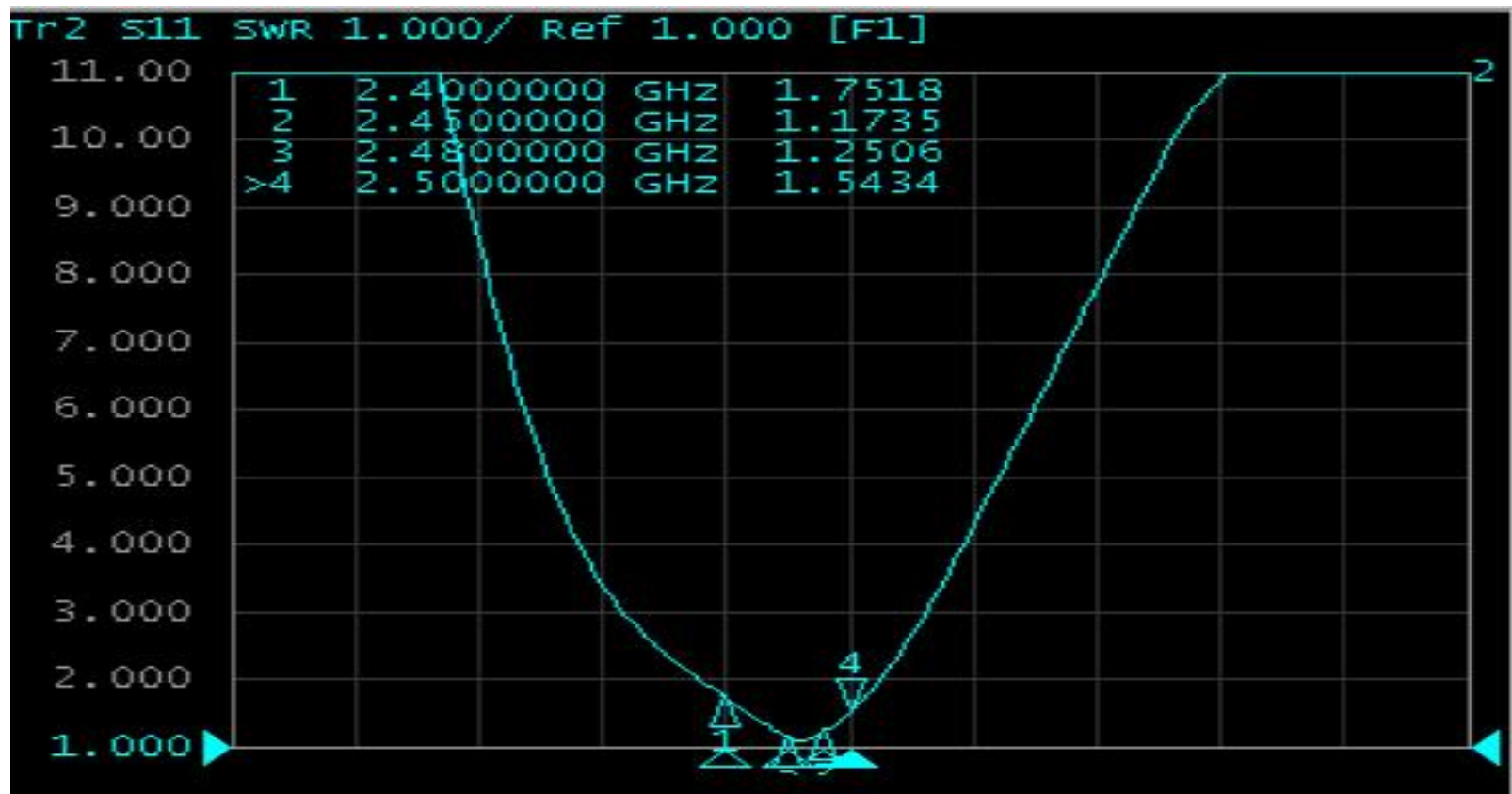
产品规格 Product Specification

尺寸规格 (mm) Specification: Unit (mm)



4. Test Result

1 S11 Parameter-VSWR



Frequency (MHz)	2400	2450	2480	2500
VSWR	1.75	1.17	1.25	1.54

4. Test Result

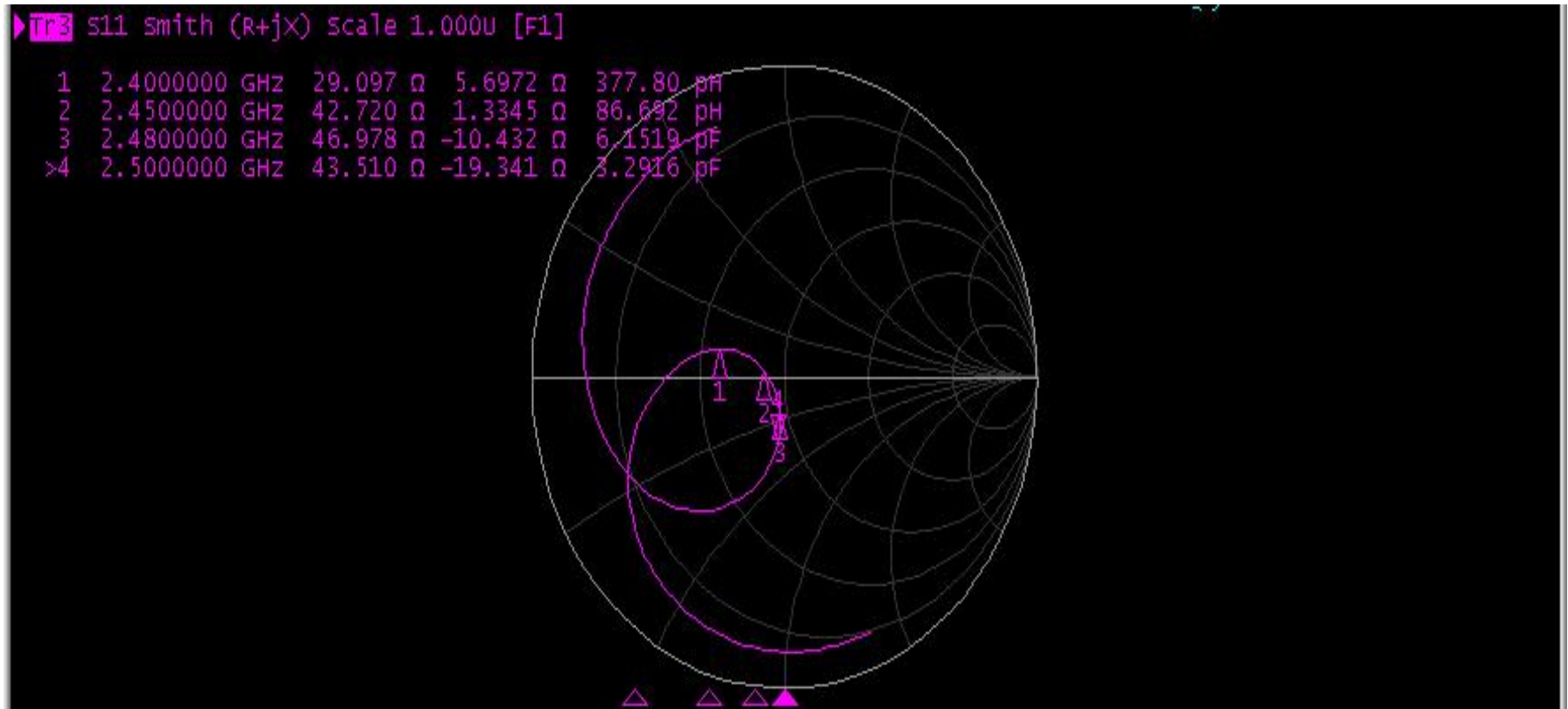
2 S11 Parameter-Log Mag



Frequency (MHz)	2400	2450	2480	2500
Log Mag	-11.27	-21.95	-19.06	-13.40

4. Test Result

3 S11 Parameter-VSWR



Frequency (MHz)	2400	2450	2480	2500
Smi th(Ω)	29.09	42.72	46.97	43.51

4.2 Test Result

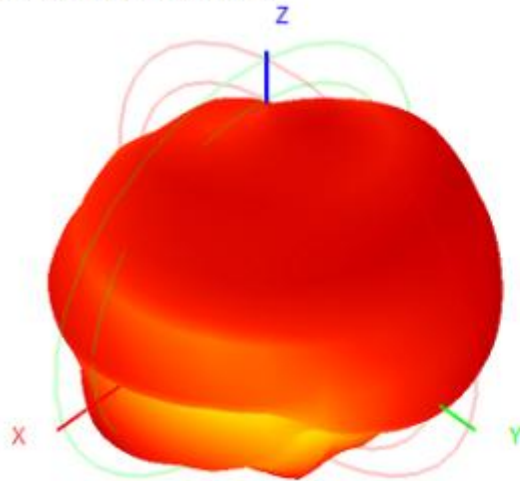
1 Gain & Efficiency—**ANT**

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	57.68	1.82
2410	58.73	1.88
2420	59.68	1.96
2430	60.60	2.20
2440	61.07	2.44
2450	60.37	2.60
2460	58.69	2.52
2470	56.58	2.17
2480	54.46	1.66

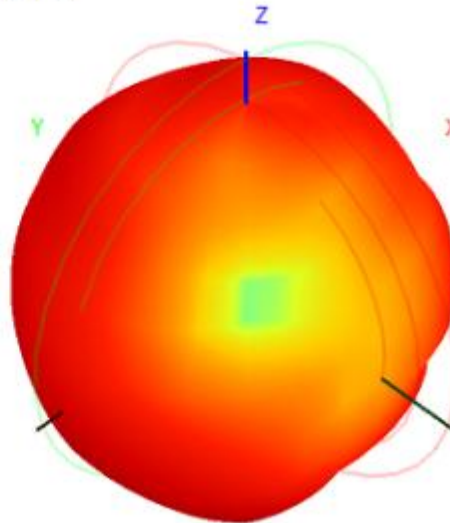
4.3 Test Result

2 2D Pattern——BTANT

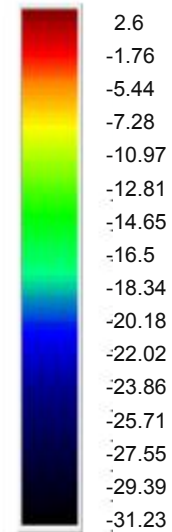
2450.0MHz Total, Eff: 36.0%



Back View



Unit: dBi



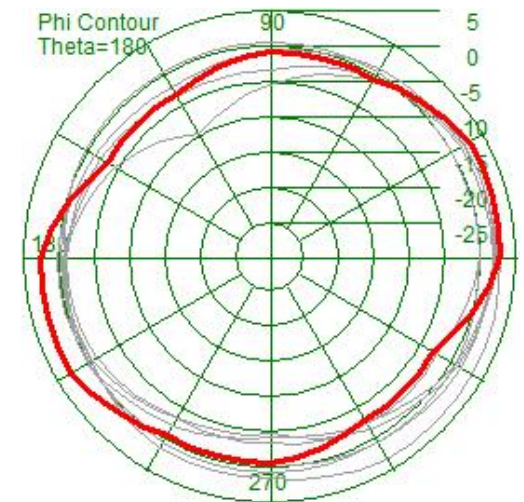
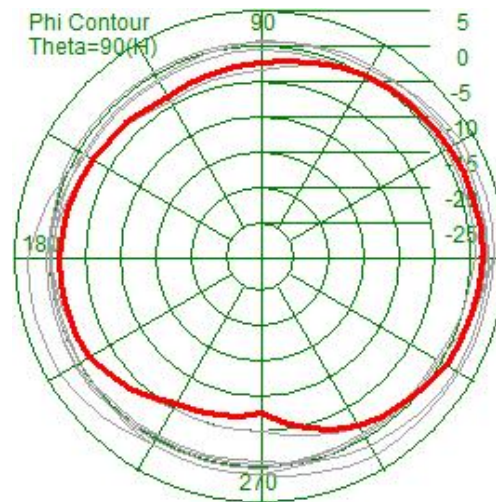
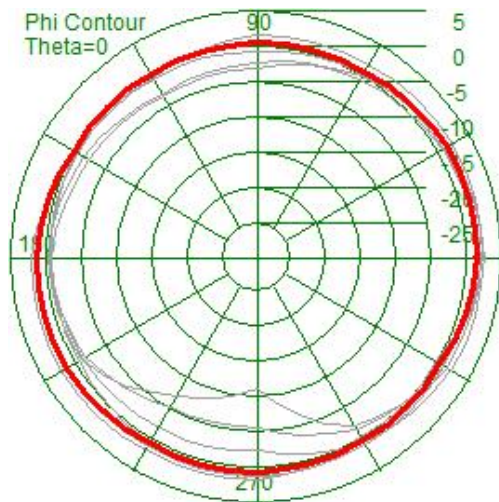
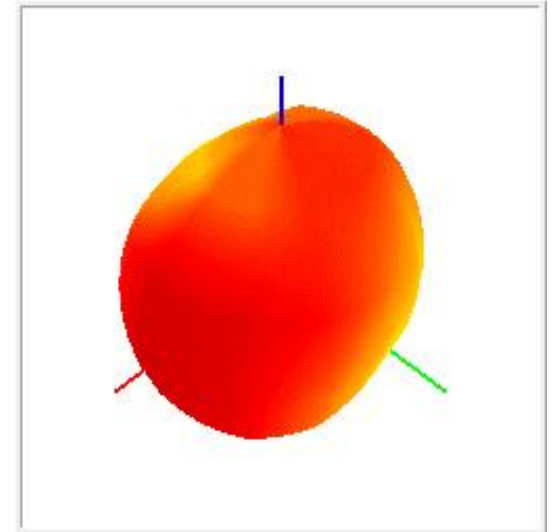
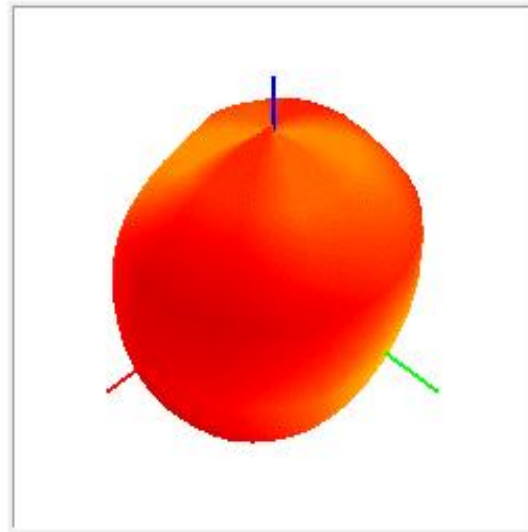
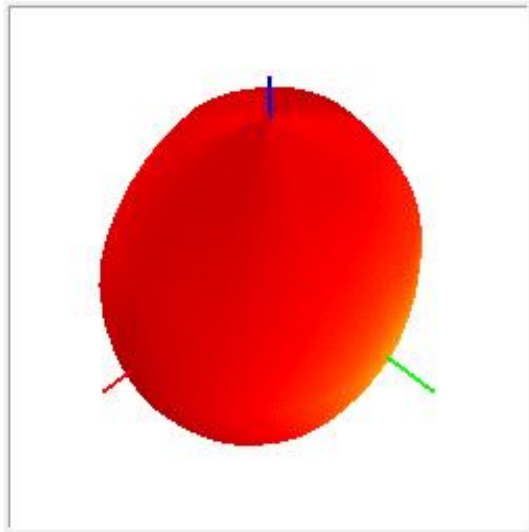
4.3 OTA Data

Test Equipment:	R&S CMW500		
Test Condition:	2 D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
BT-L	0	1.44	-87.08
	39	1.86	-87.70
	78	1.54	-87.98

4.4 Test Result

1 2D Pattern——**BTANT**

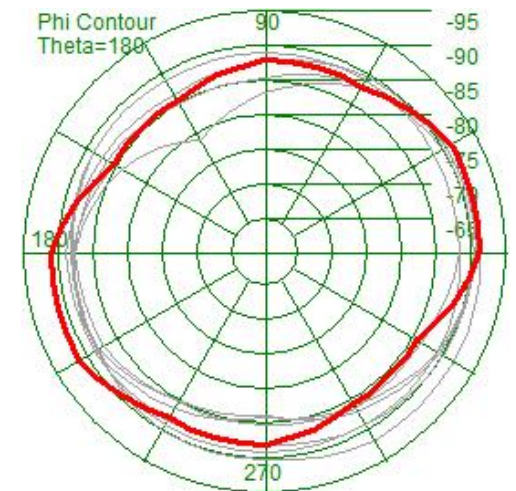
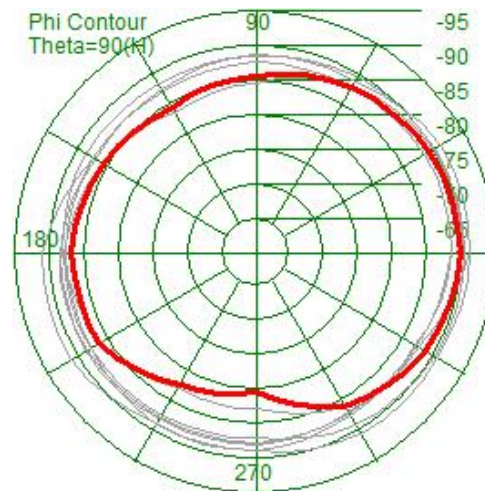
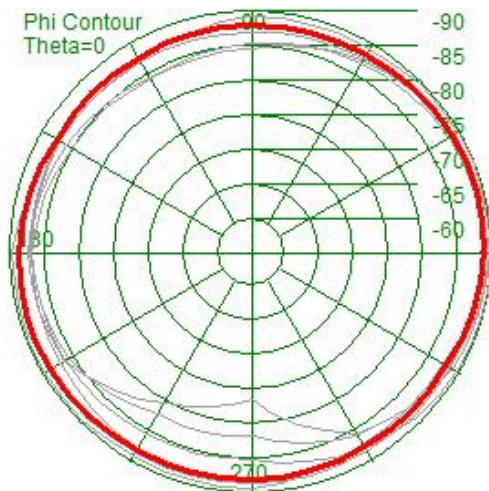
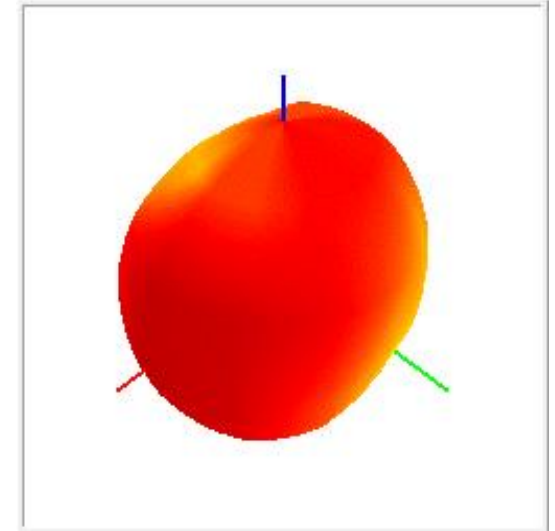
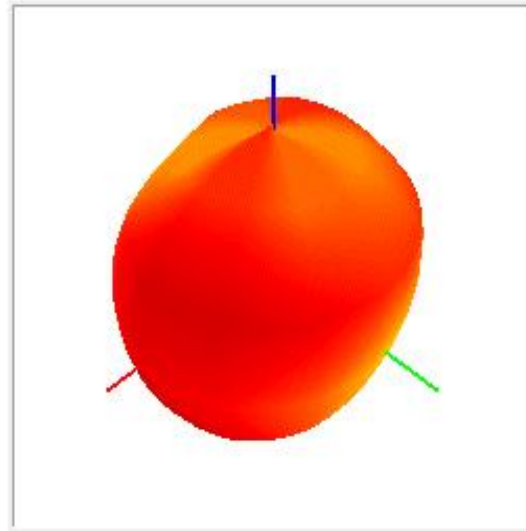
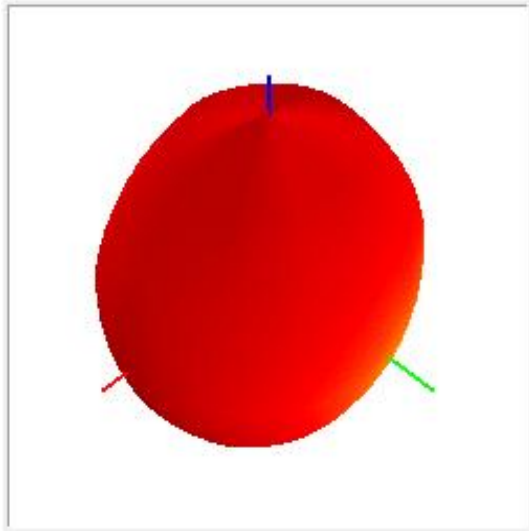
TRP



4.4 Test Result

2 2D Pattern——**BTANT**

TIS



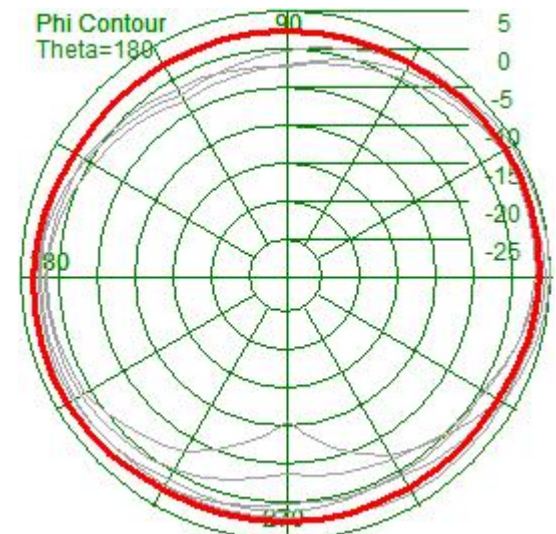
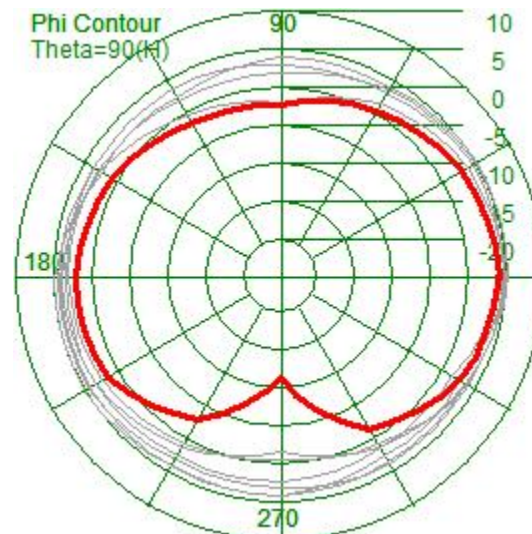
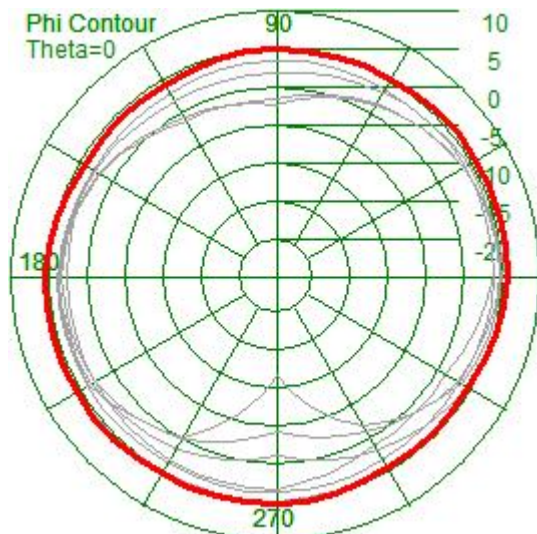
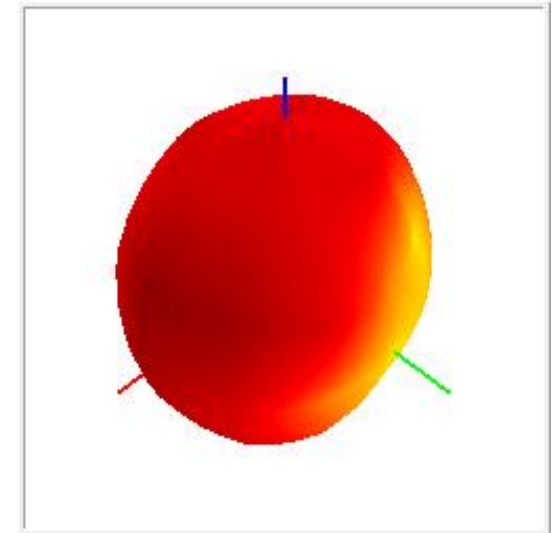
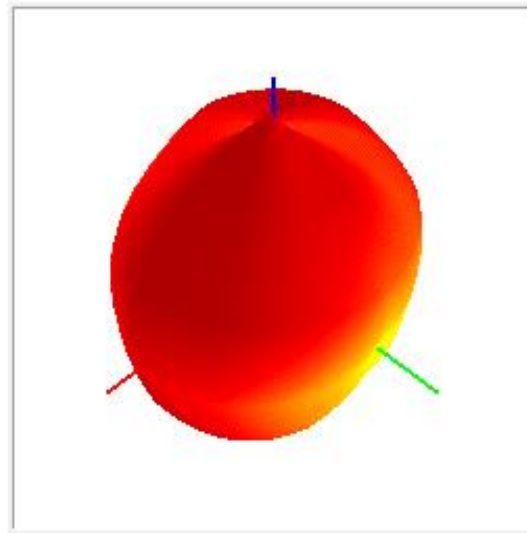
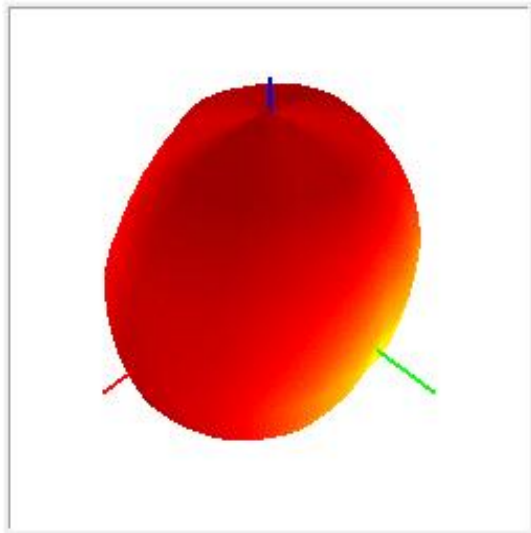
4.3 OTA Data

Test Equipment:	R&S CMW500		
Test Condition:	2 D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
BT-R	0	2.57	-88.27
	39	2.25	-88.88
	78	1.43	-88.30

4.4 Test Result

1 2D Pattern——**BTANT**

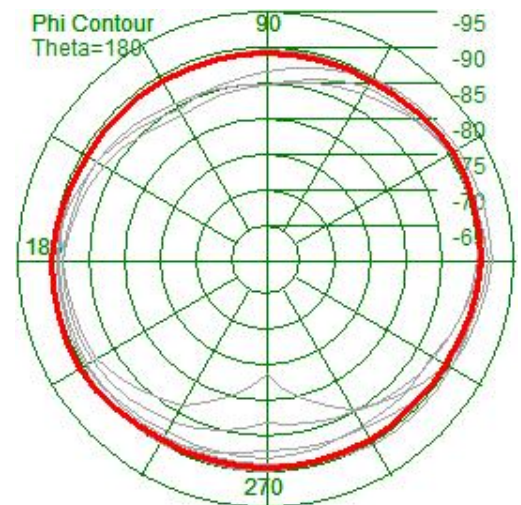
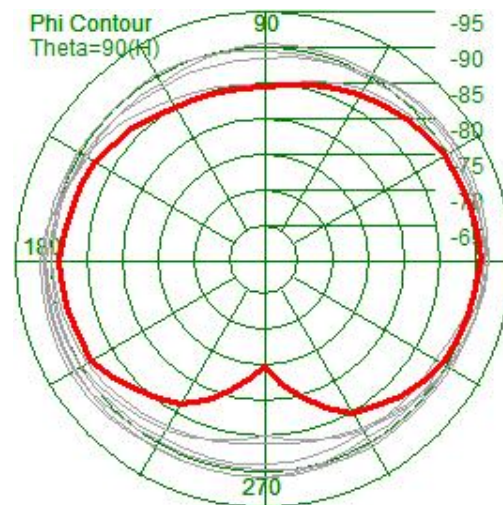
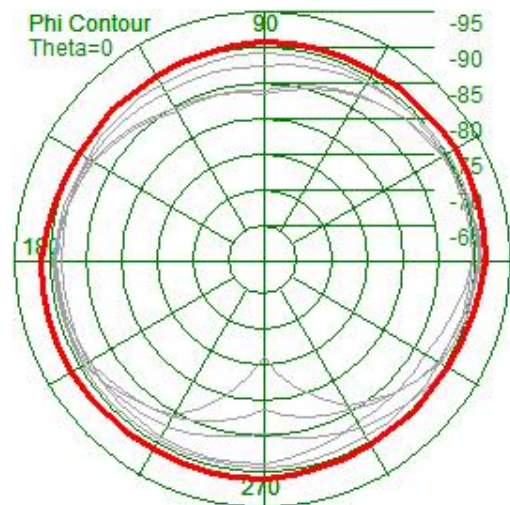
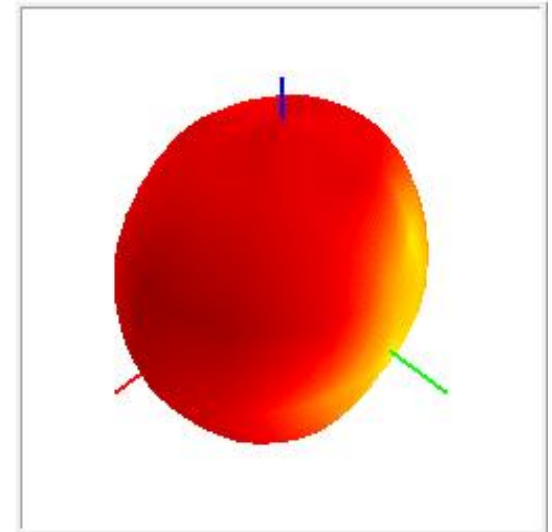
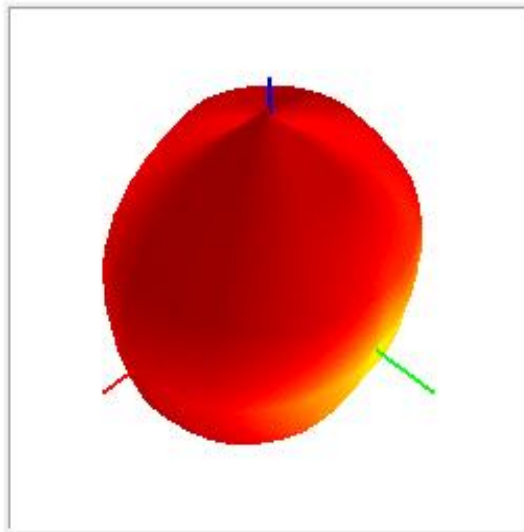
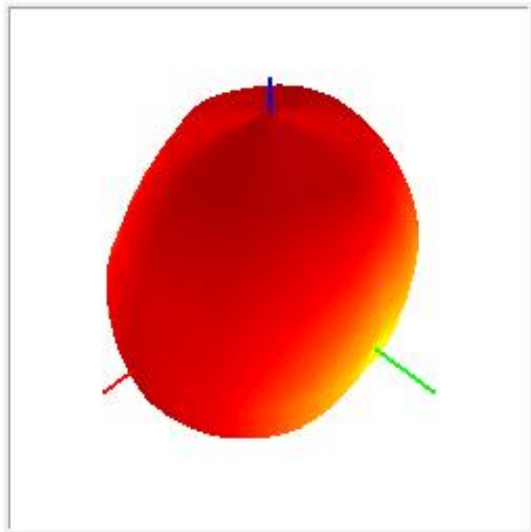
TRP



4.4 Test Result

2 2D Pattern——**BTANT**

TIS



Thank you!