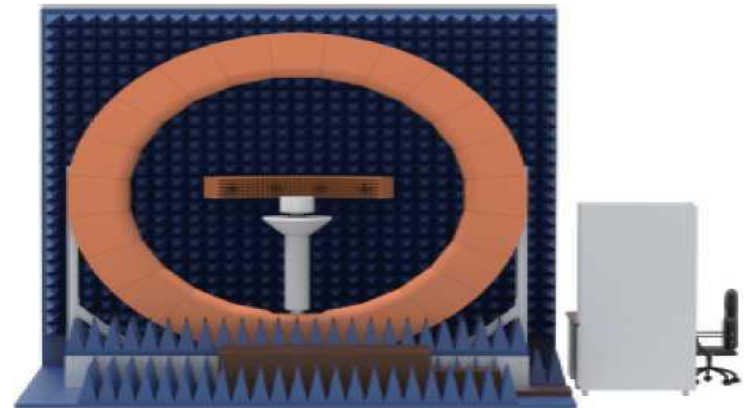
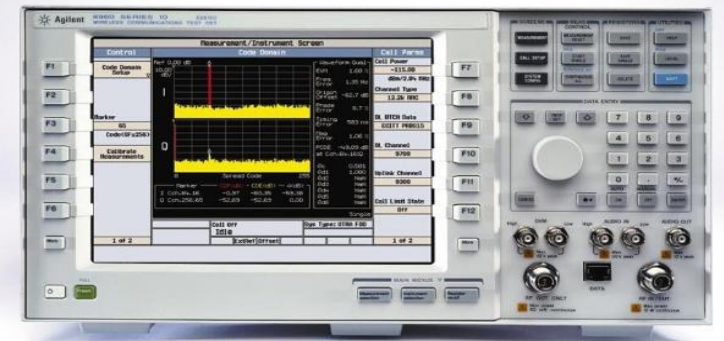




Customer	
Project	Charging case
Antenna Revision	A0
Prepared by	18814303605
Checked by	
Date :	2025. 02. 13

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 Charging case 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

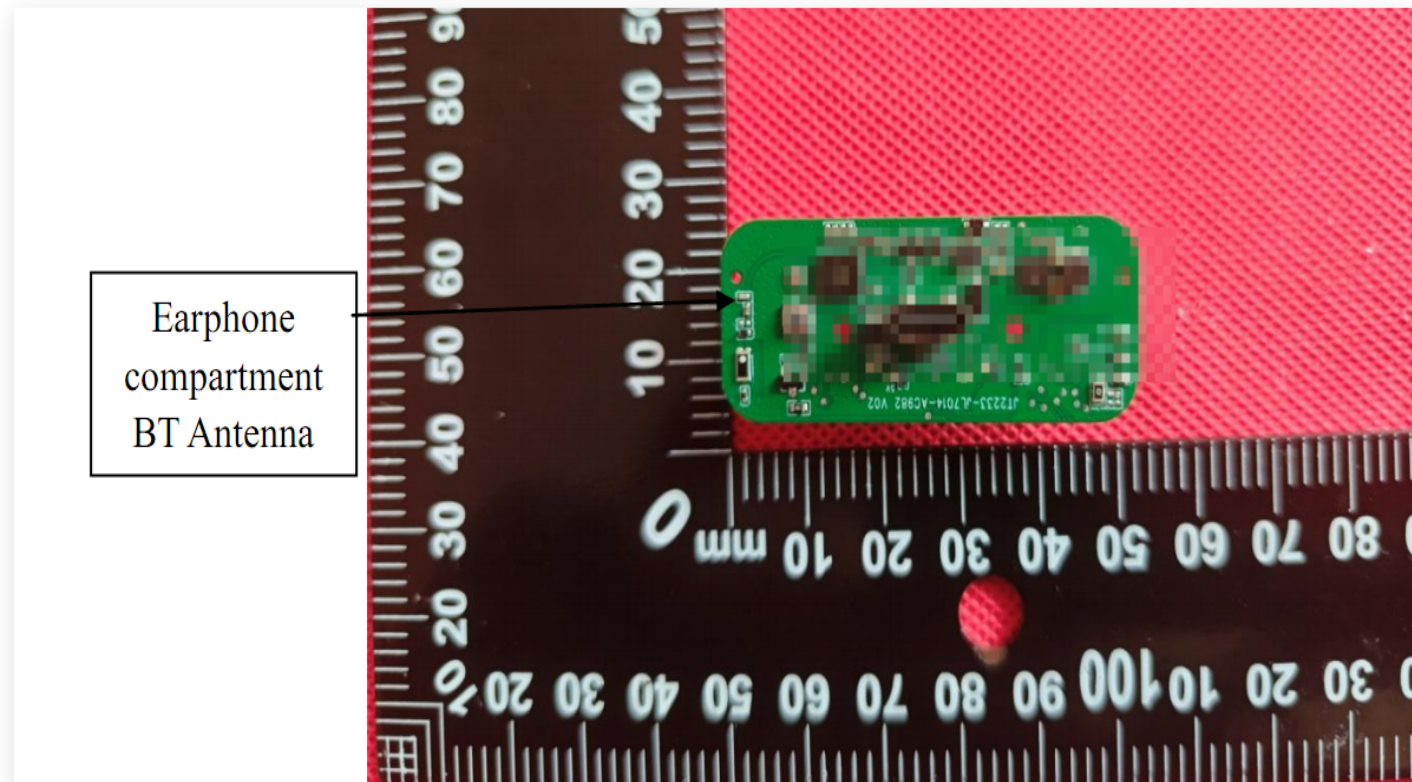
4.1 Test Result

4.2 2D Pattern



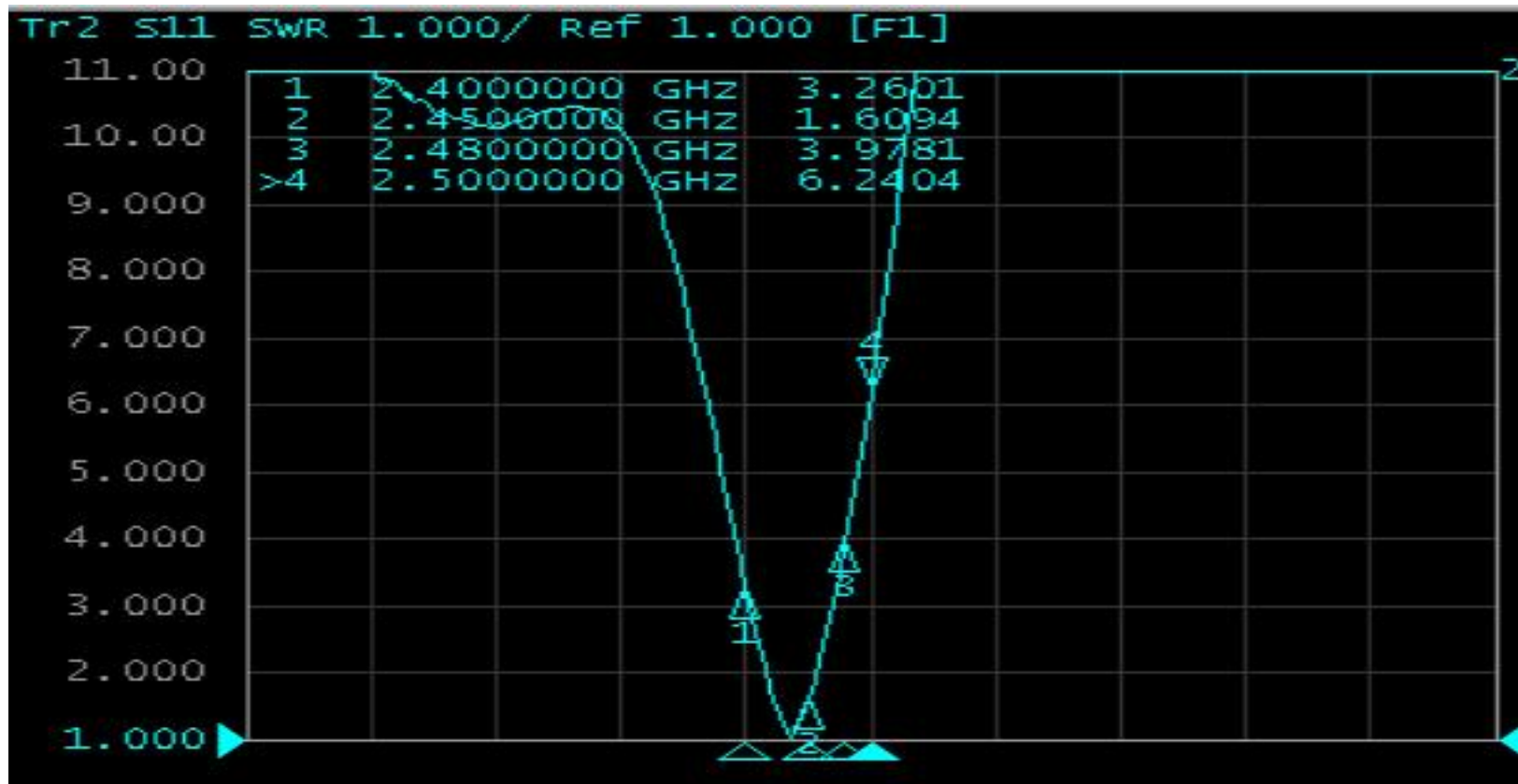
Charging case

Antenna Type: Ceramic Antenna



3.1 Test Result

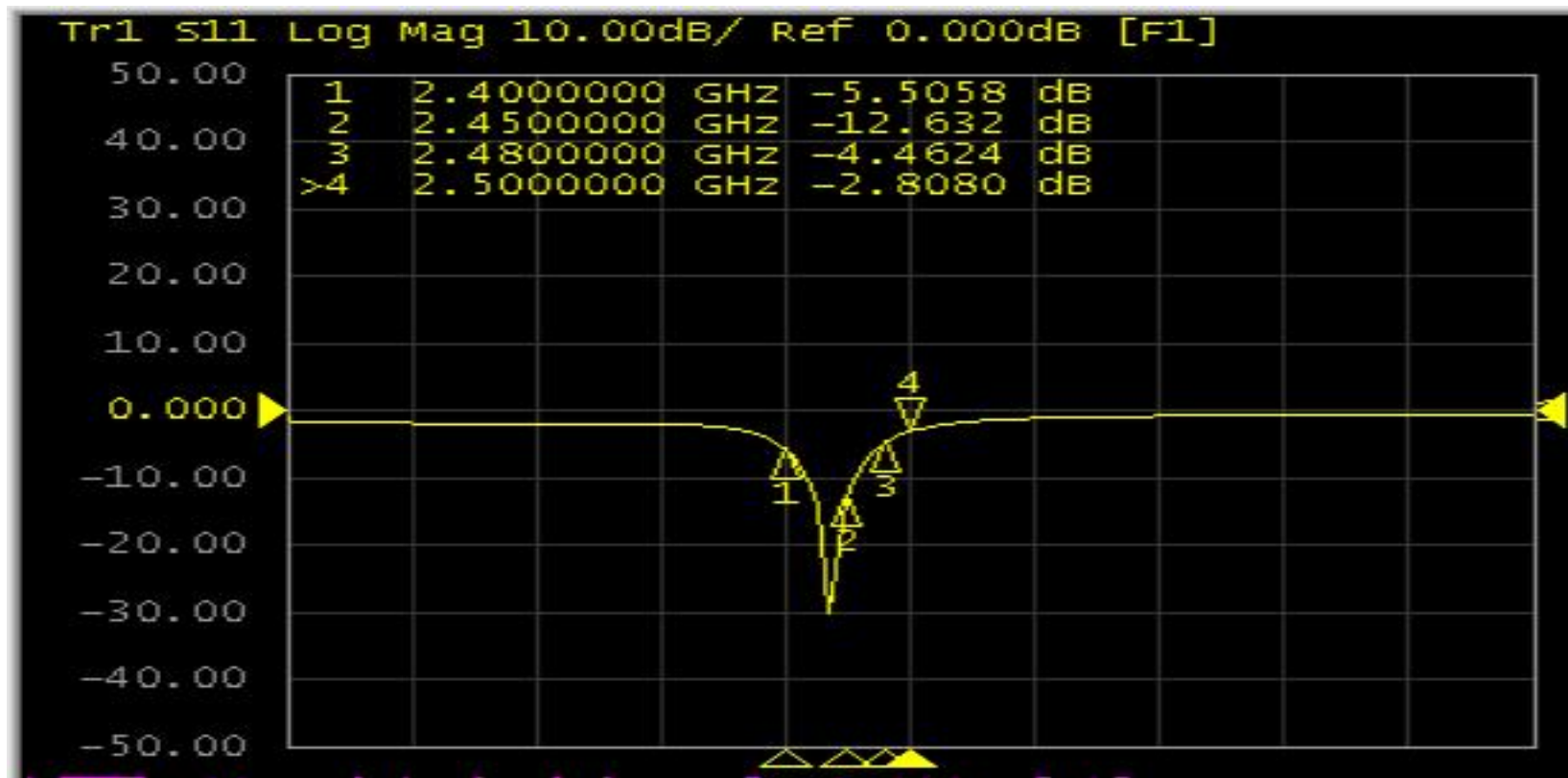
1. S11 Parameter-VSWR



Frequency (MHz)	2400	2450	2480	2500
VSWR	3.26	1.60	3.97	6.24

3.1 Test Result

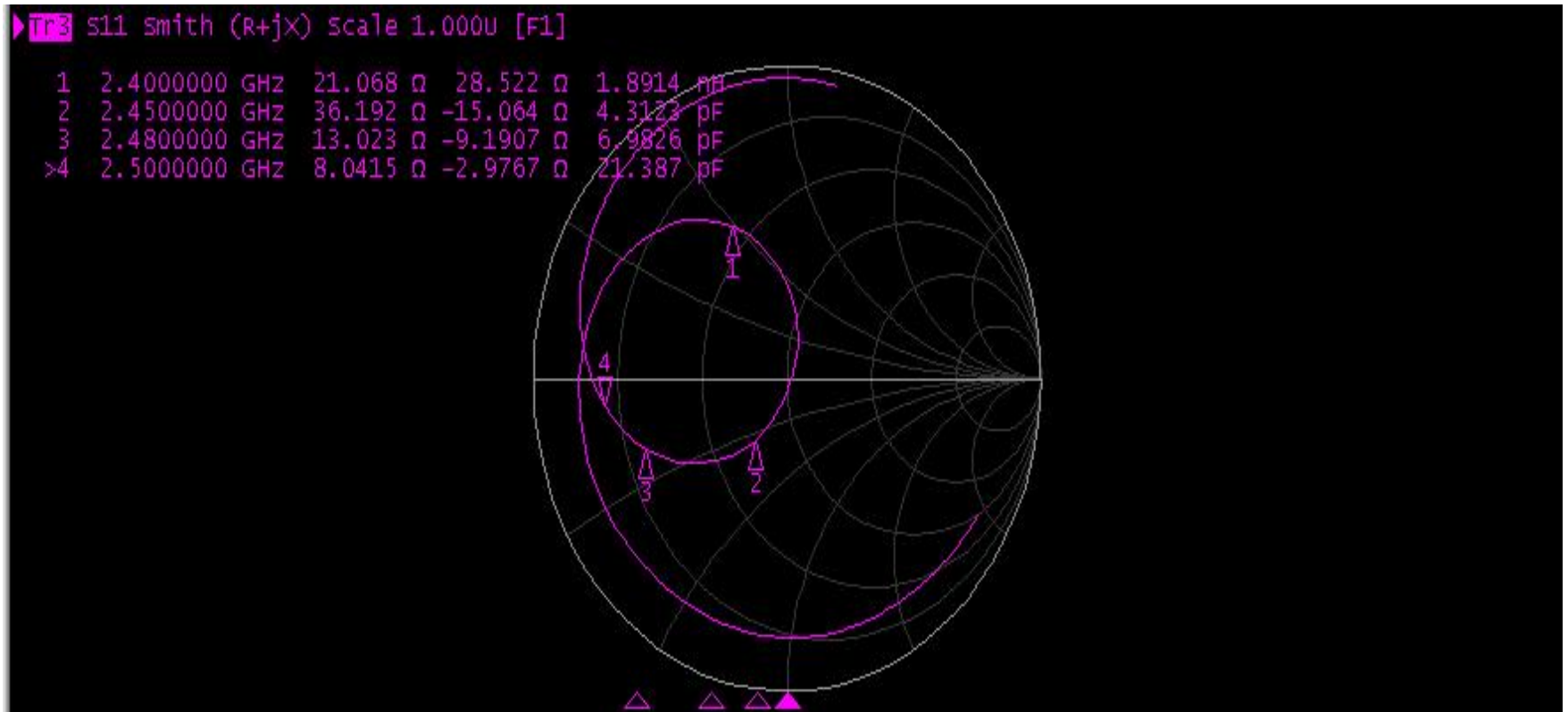
2. S11 Parameter-Log Mag



Frequency (MHz)	2400	2450	2480	2500
Log Mag	-5.50	-12.63	-4.46	-2.80

3.1 Test Result

3. S11 Parameter-VSWR



Frequency (MHz)	2400	2450	2480	2500
Smi th(Ω)	21.06	36.19	13.02	8.04

3.2 Test Result

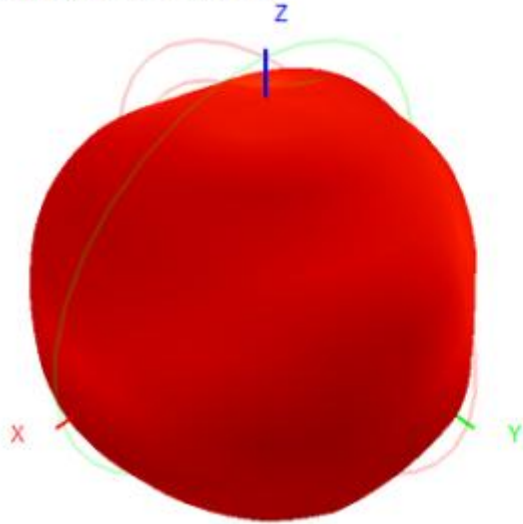
1 Gain & Efficiency—**ANT**

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	21.49	-3.33
2410	23.33	-3.22
2420	23.70	-3.26
2430	22.98	-3.37
2440	21.80	-3.56
2450	19.50	-3.95
2460	17.48	-4.32
2470	15.33	-4.77
2480	13.72	-5.16

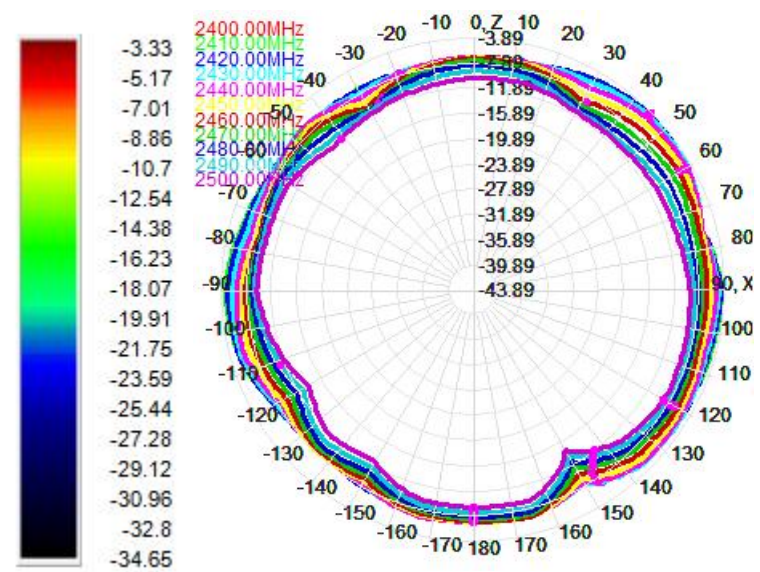
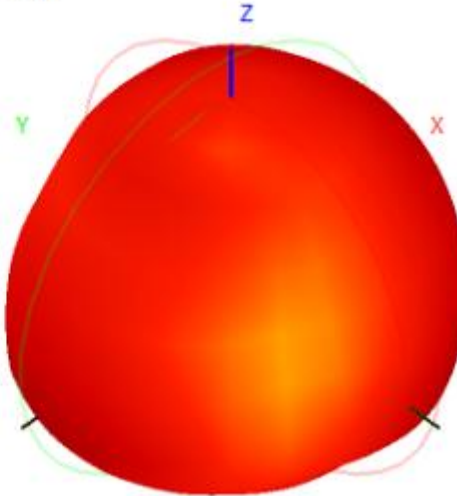
3.3 Test Result

1 2D Pattern——BTANT

2400.0MHz Total, Eff: 21.5%



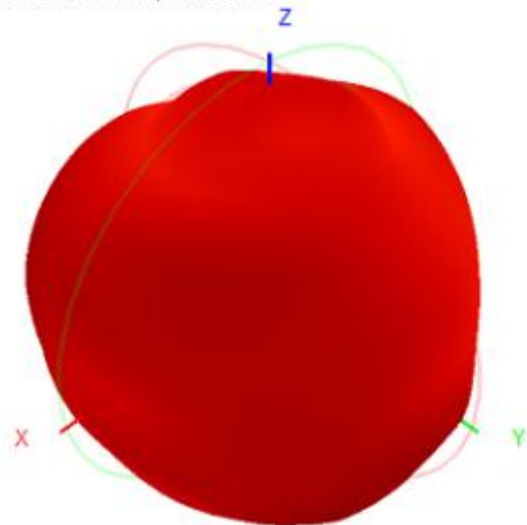
Back View



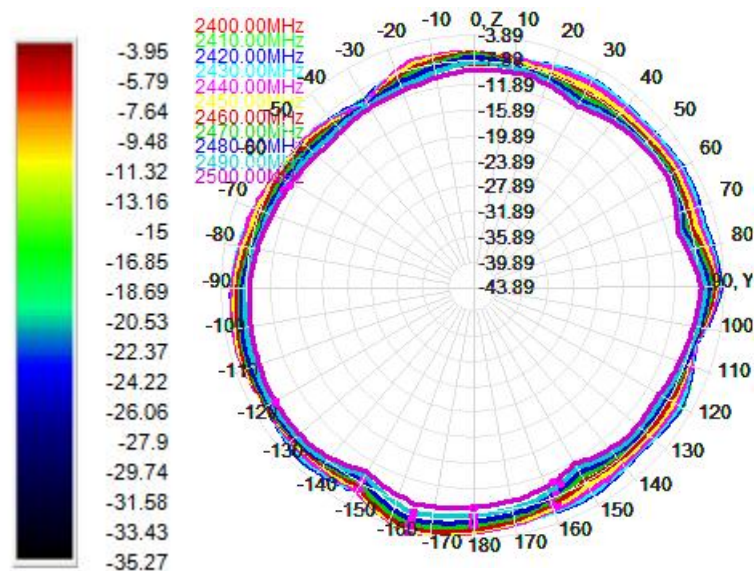
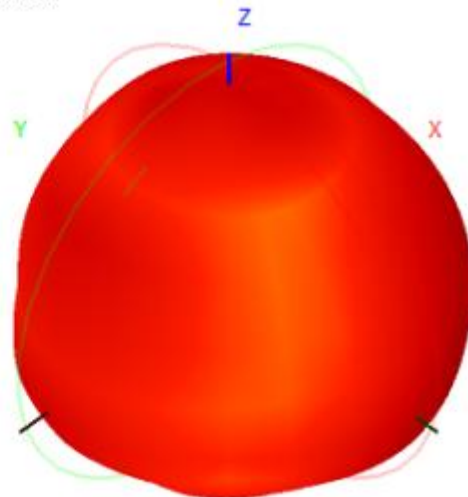
3.3 Test Result

2 2D Pattern—BTANT

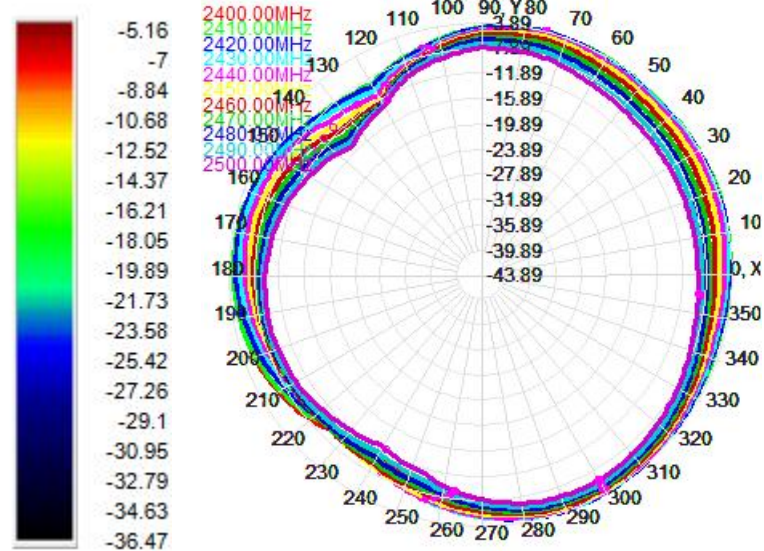
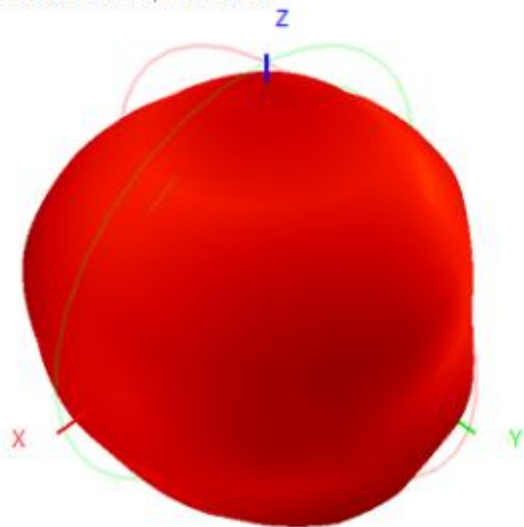
2450.0MHz Total, Eff: 19.5%



Back View



3 2D Pattern——BTANT



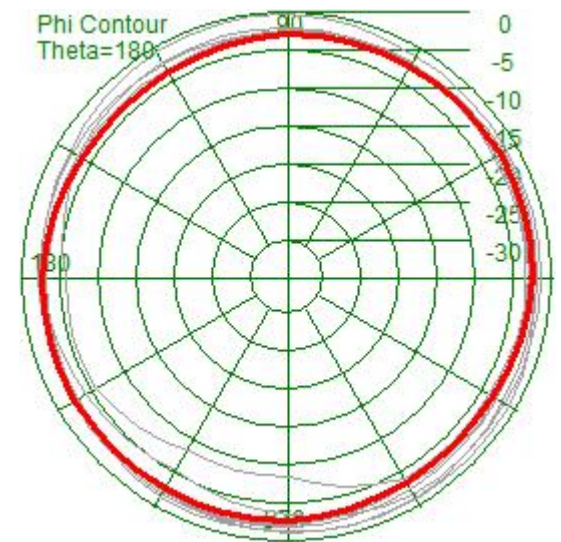
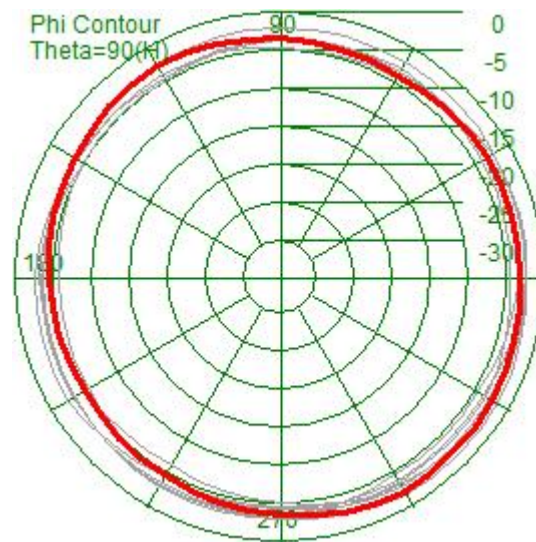
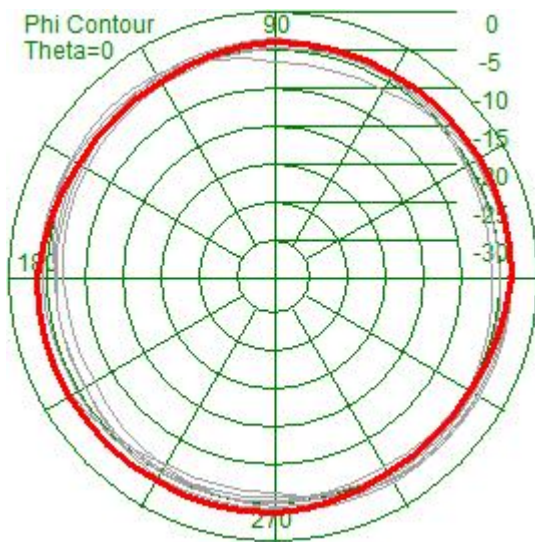
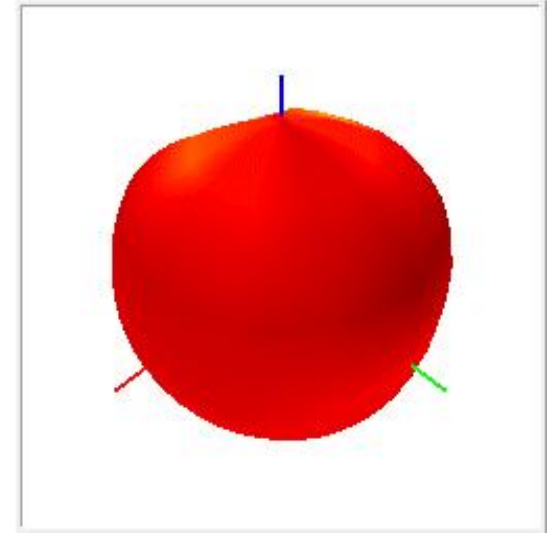
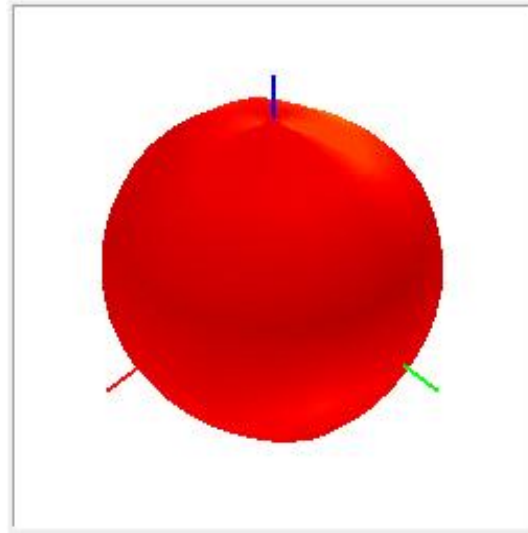
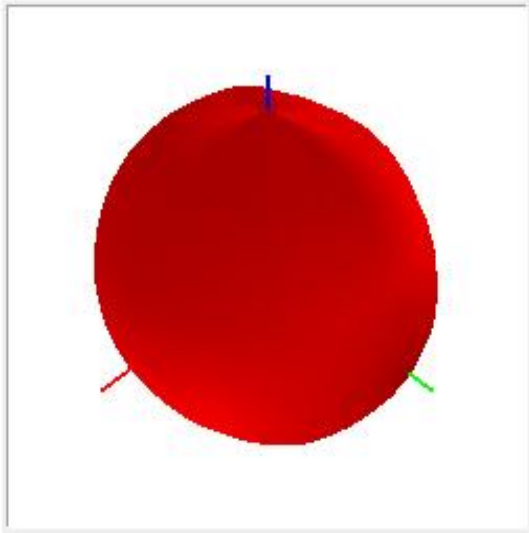
4.1 OTA Data

Test Equipment:	R&S CMW500		
Test Condition:	2 D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
BT	0	-3.12	-82.93
	39	-3.70	-81.07
	78	-2.60	-79.17

4.2 Test Result

1 2D Pattern——**BTANT**

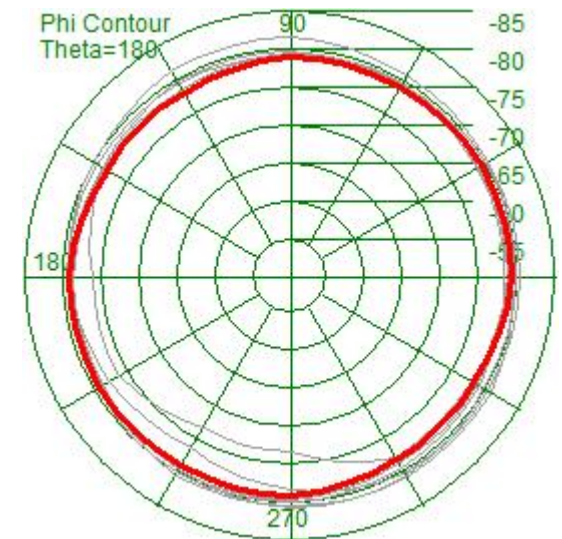
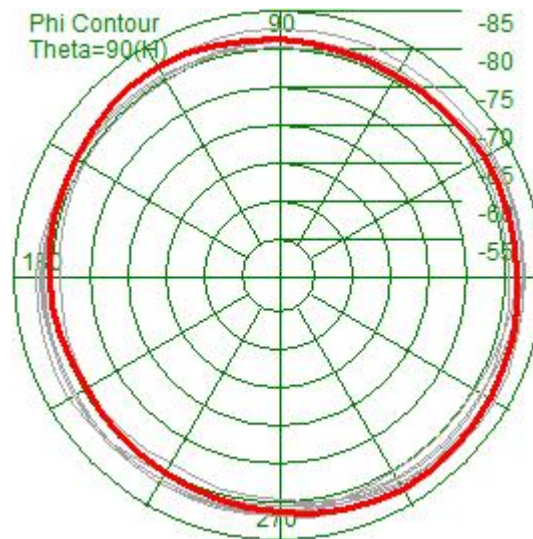
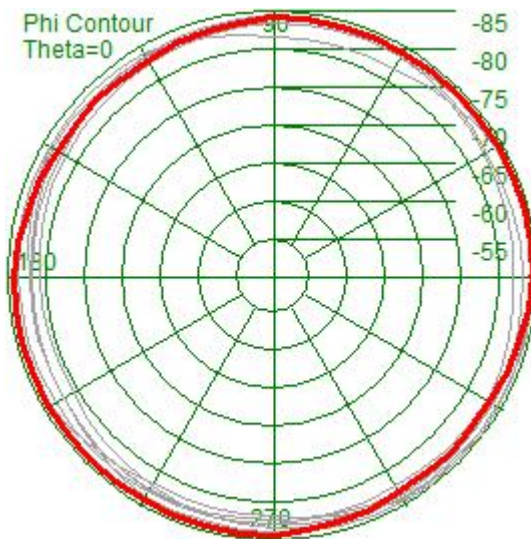
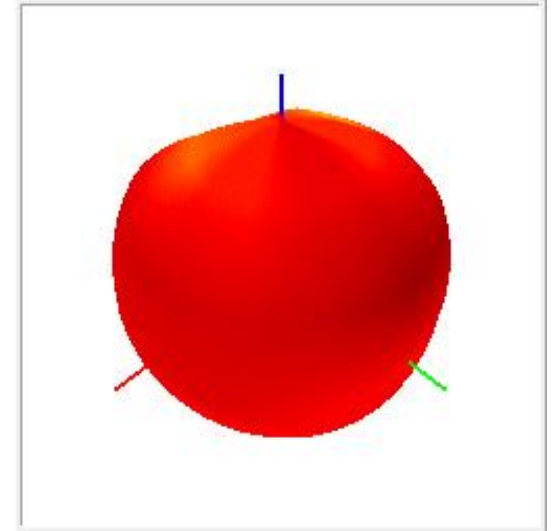
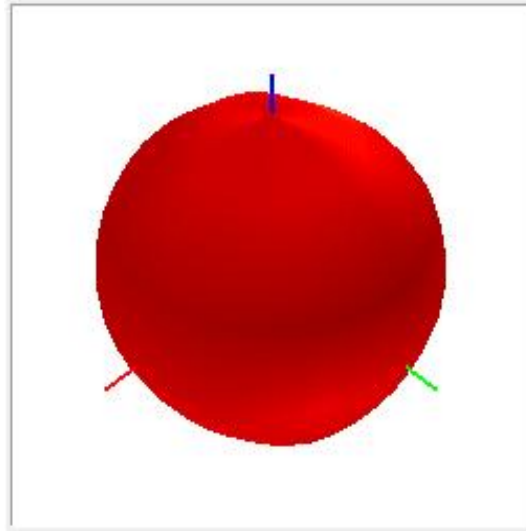
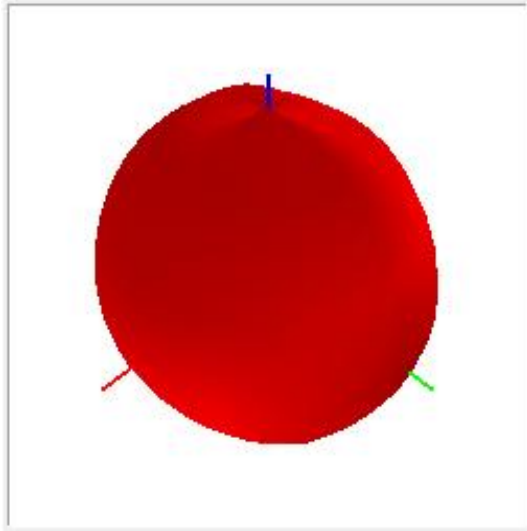
TRP



4.2 Test Result

2 2D Pattern——**BTANT**

TIS



Thank you!