

# HELIX 合立讯 Antenna Test Report



Customer	Shenzhen Jialide technology Co., LTD 2 / F, Factory Building, No. 19, Baotong South Road, Xikeng Community, Yuanshan Street, Longgang District, Shenzhen
Project	JD-969
Antenna Revision	A0
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Checked by	18814303605
Date:	2023. 10. 26

## ***Purpose***

This report is to measure the performance of antenna for **JD-969** The antenna operating frequency at 2400MHz-2500MHz 。 All test data are showed as below.

## ***Content***

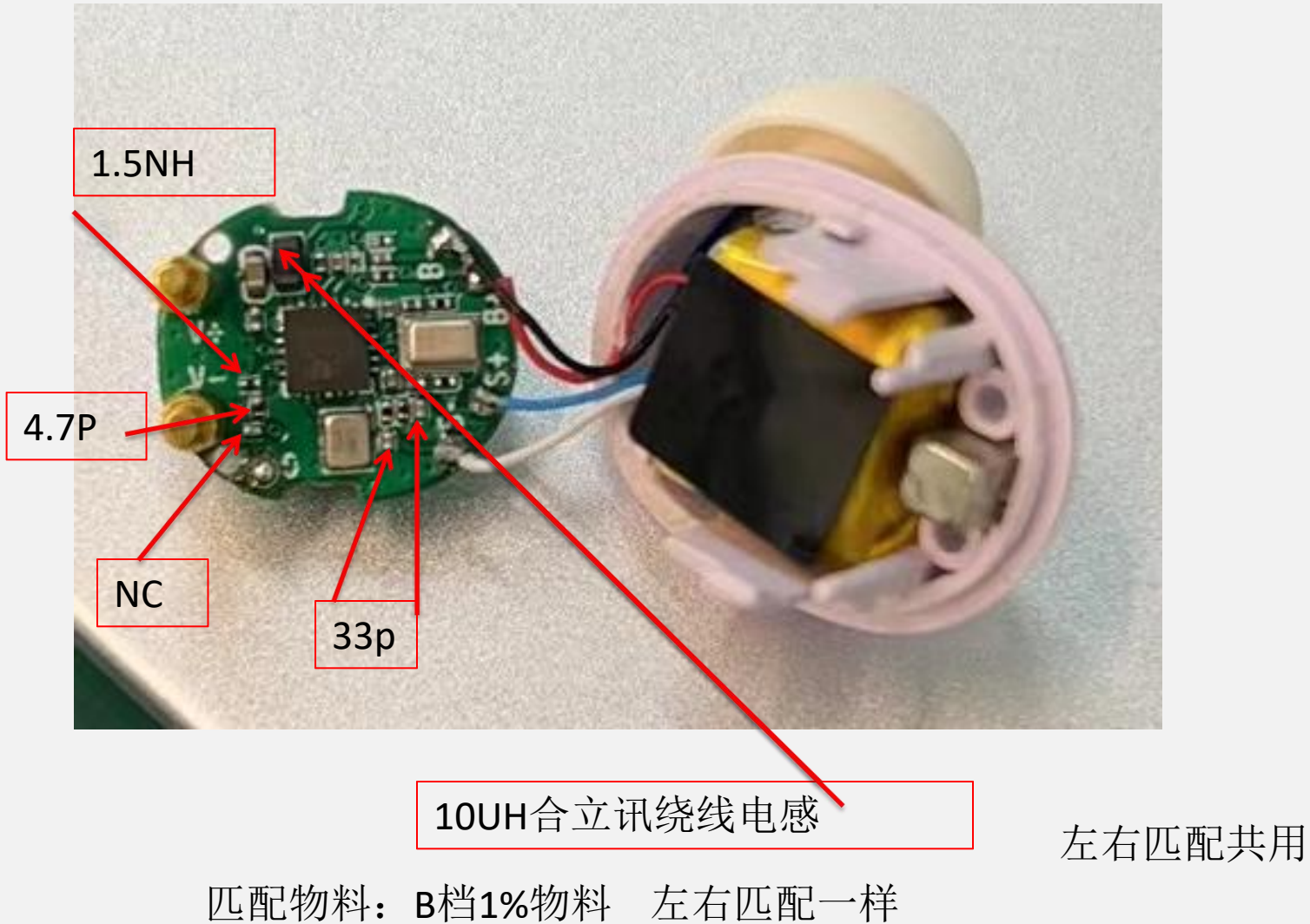
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## 2. Test System

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



### 3.Product Overview & Dimension





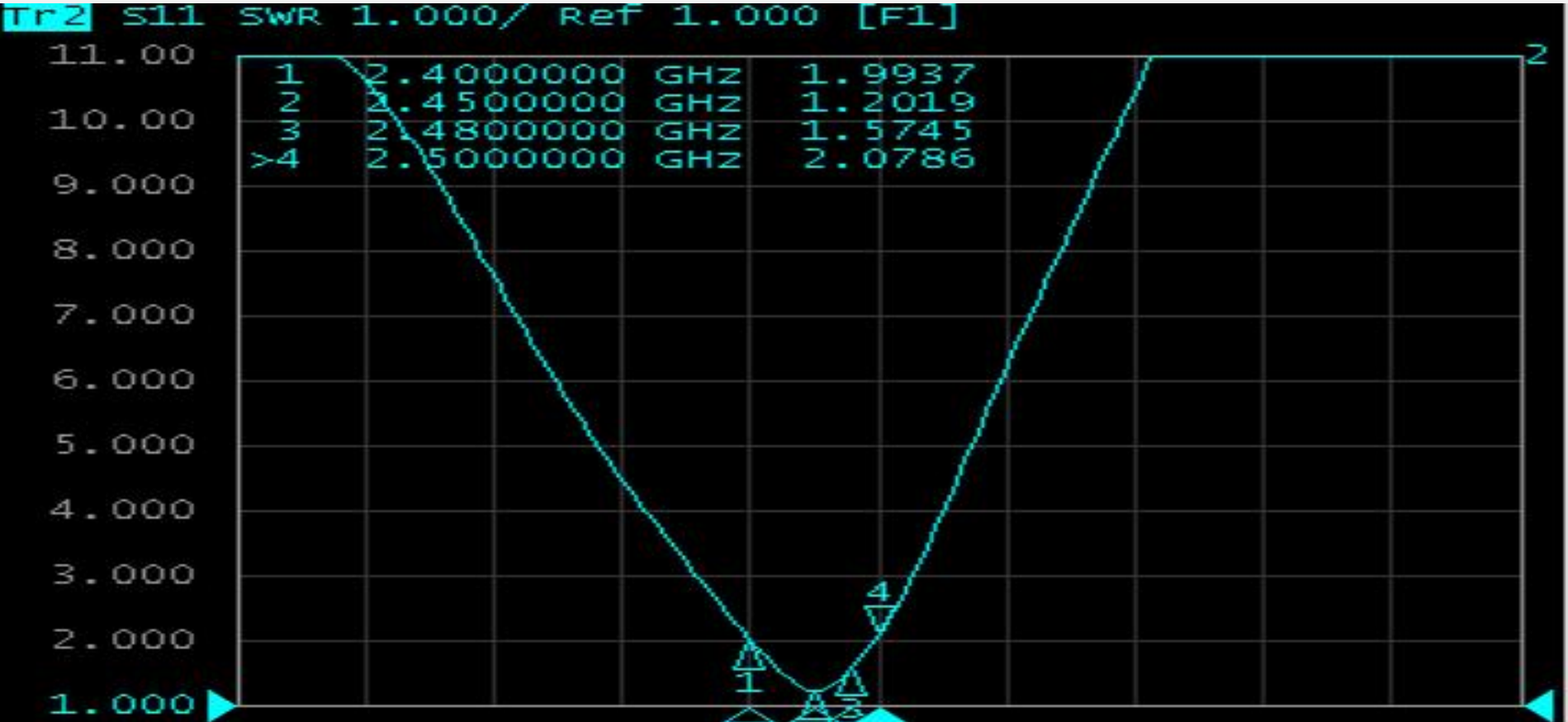
### 3. 装配图



喇叭线，电池线，分开各拧3-4圈，电池上贴1-1.5厚度的面

## 4. Test Result

### 4.1 S11 Parameter-VSWR

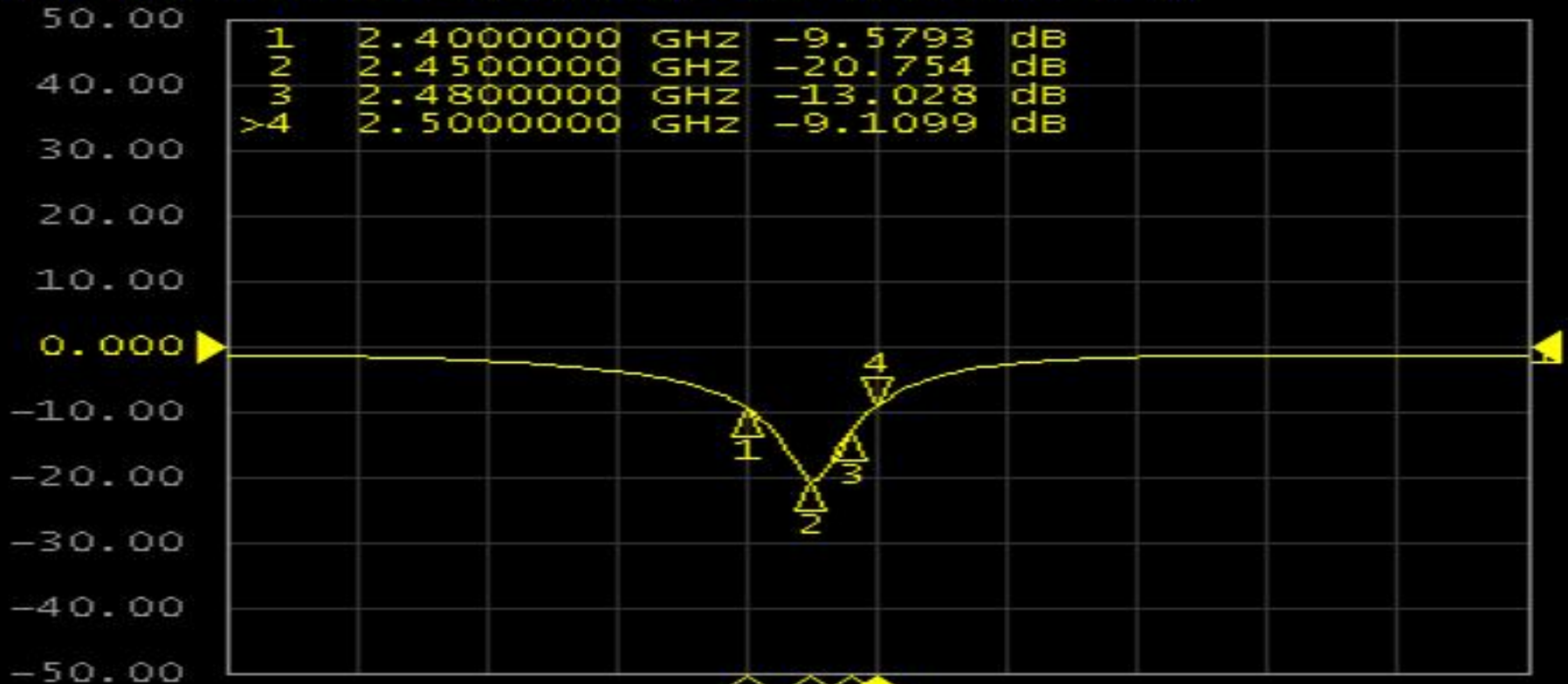


Frequency (MHz)	2400	2450	2480	2500
VSWR	1.99	1.20	1.57	2.07

## 4. Test Result

### 4.1 S11 Parameter-Log Mag

Tr1 S11 Log Mag 10.00dB/ Ref 0.000dB [F1]



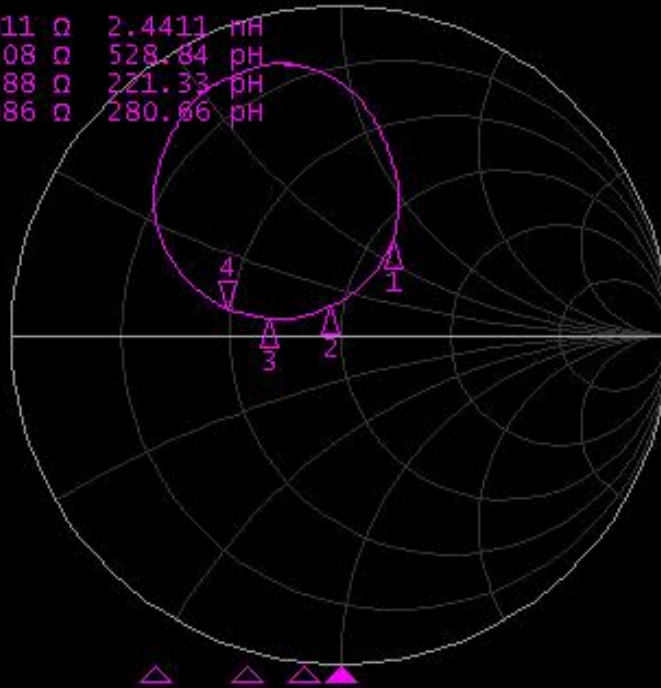
Frequency (MHz)	2400	2450	2480	2500
Log Mag	-9.57	-20.75	-13.02	-9.10

## 4. Test Result

### 4.1 S11 Parameter-Smith

Tr3 s11 smith (R+jX) scale 1.000U [F1]

1	2.4000000 GHz	56.350 Ω	36.811 Ω	2.4411 nH
2	2.4500000 GHz	46.463 Ω	8.1408 Ω	528.84 pH
3	2.4800000 GHz	32.011 Ω	3.4488 Ω	221.33 pH
>4	2.5000000 GHz	24.299 Ω	4.4086 Ω	280.86 pH



1 Start 2 GHz IFBW 70 kHz Stop 3 GHz PExt Cor Hold Stop ExtRef Svc

Frequency (MHz)	2400	2450	2480	2500
Smi th(Ω)	56.35	46.46	32.01	24.29



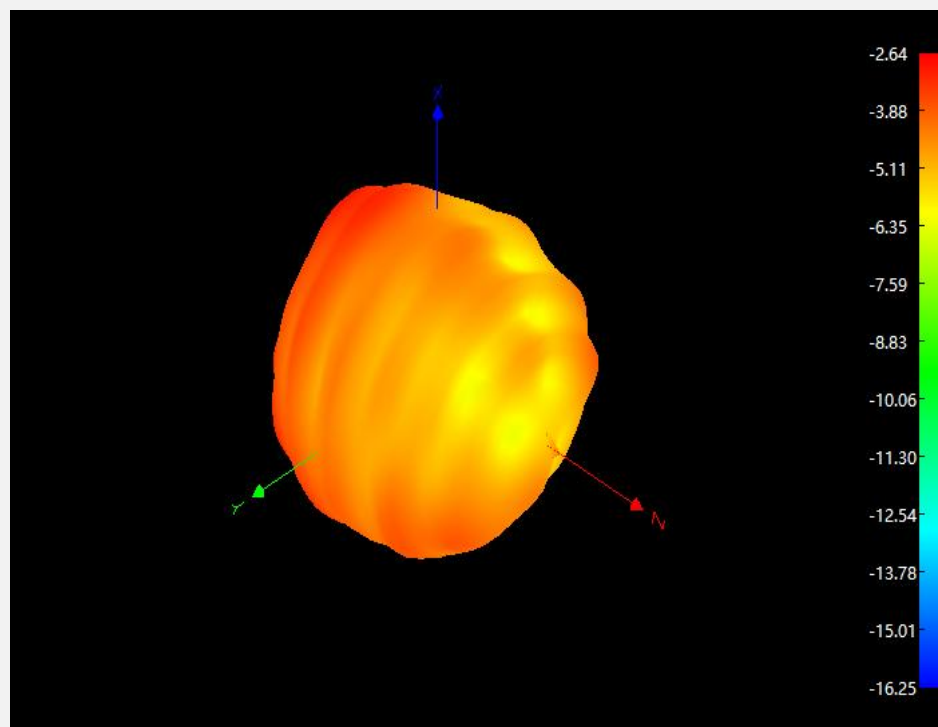
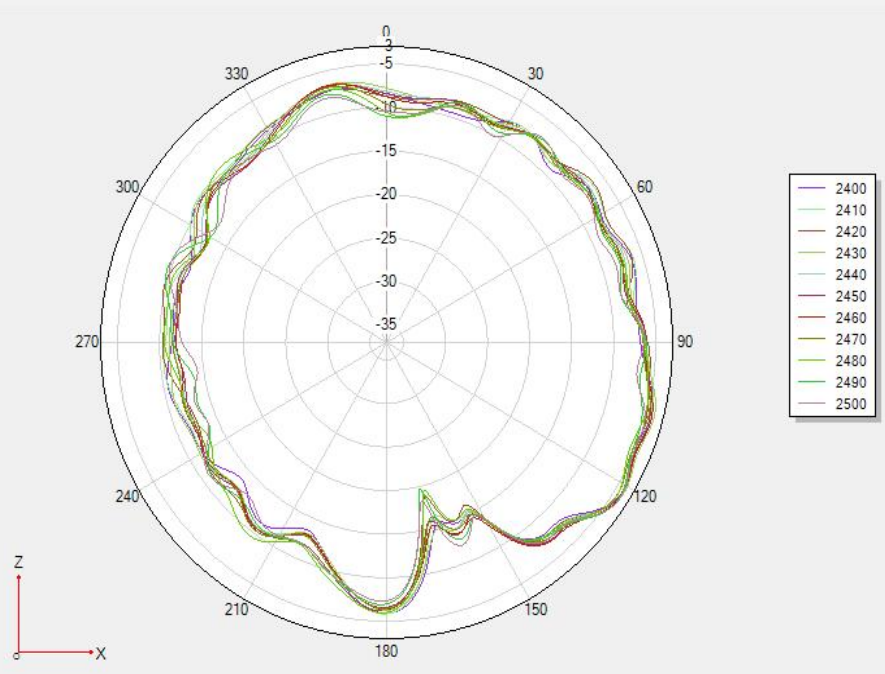
## 4. Test Result

### 4.2 Gain & Efficiency——ANT

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	19.23	-2.64
2410	20.37	-2.17
2420	21.32	-2.11
2430	21.42	-2.15
2440	22.12	-2.26
2450	22.36	-2.36
2460	22.63	-2.18
2470	22.13	-2.49
2480	23.03	-2.06

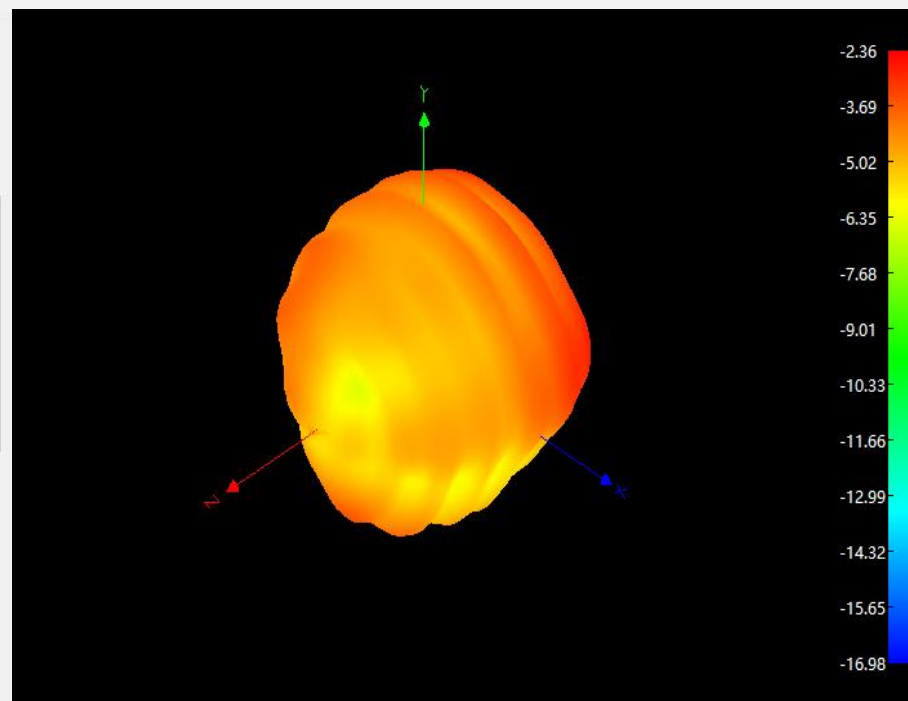
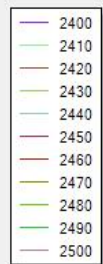
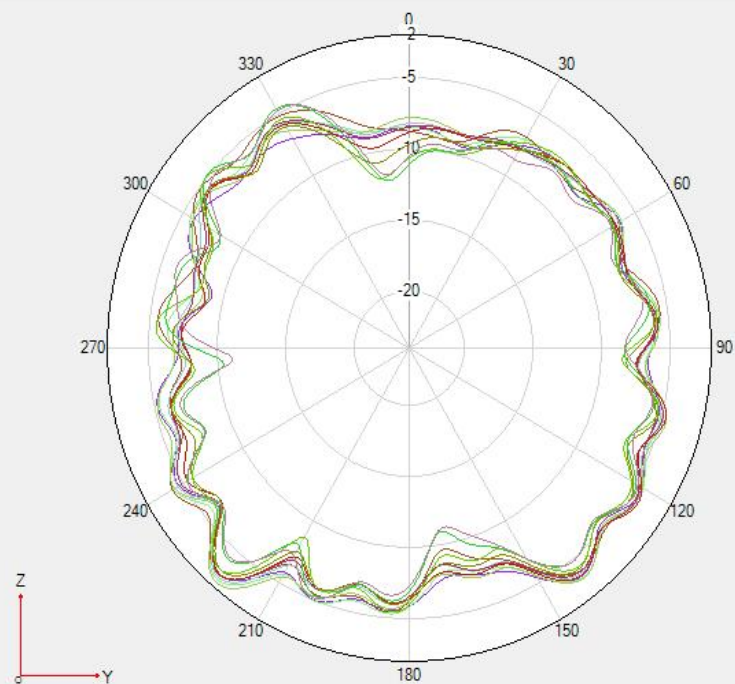
## 4. Test Result

### 4.3 2D Pattern — BT ANT



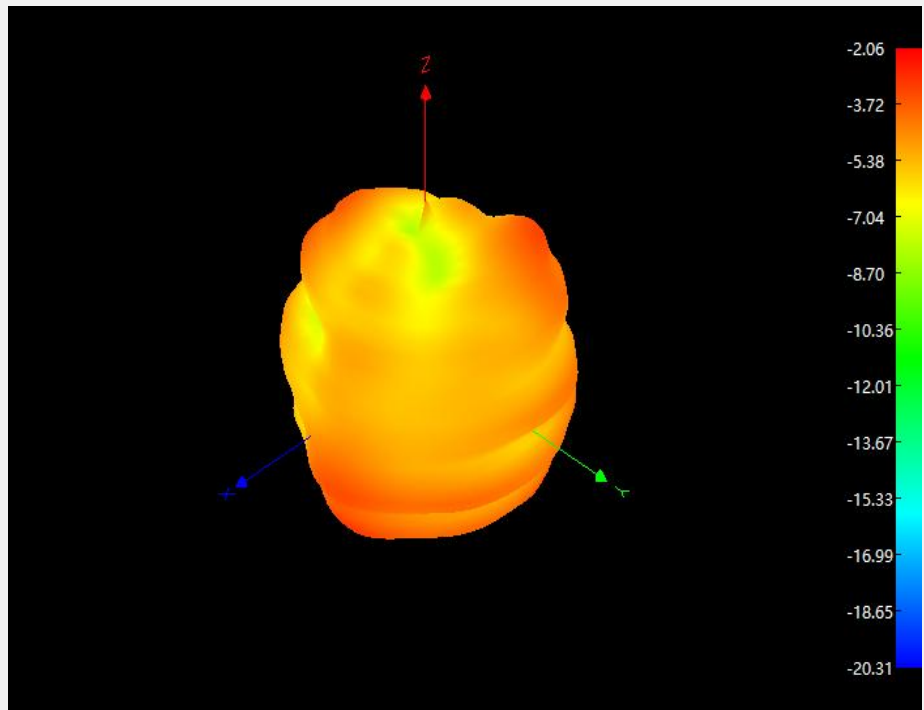
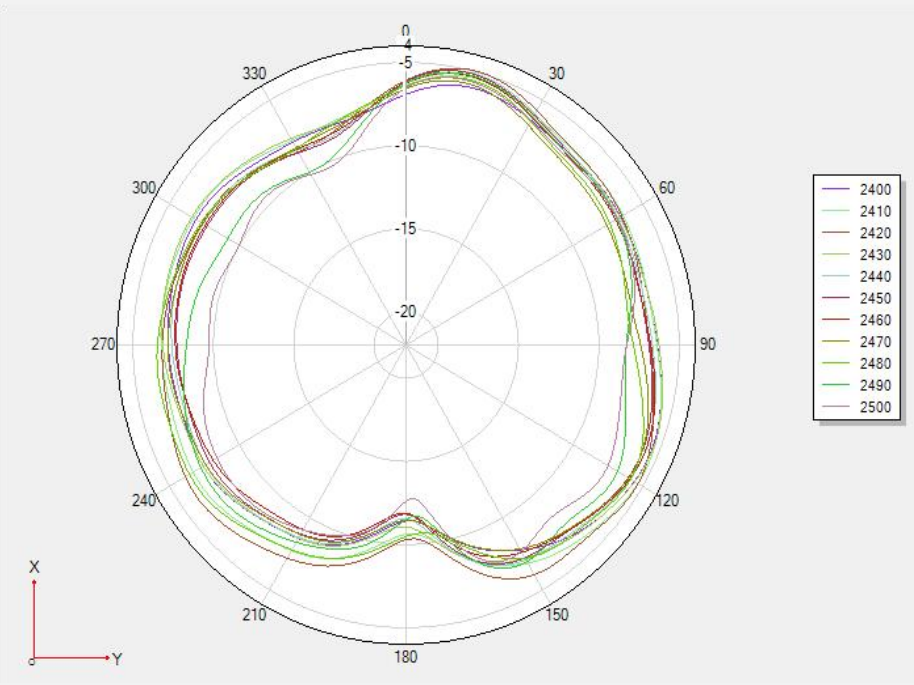
## 4. Test Result

### 4.3 2D Pattern——BT ANT



## 4. Test Result

### 4.3 2D Pattern — BT ANT



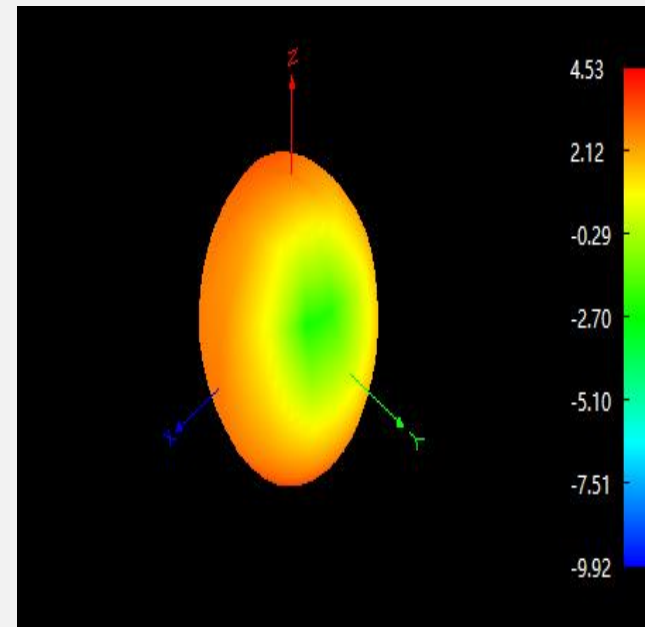
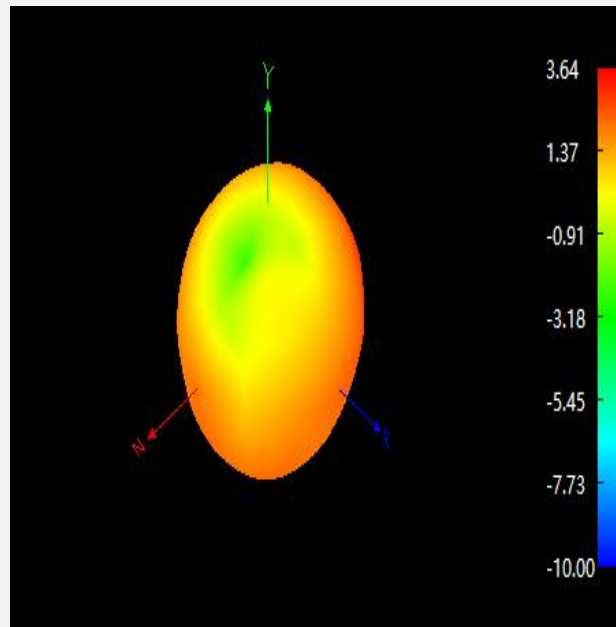
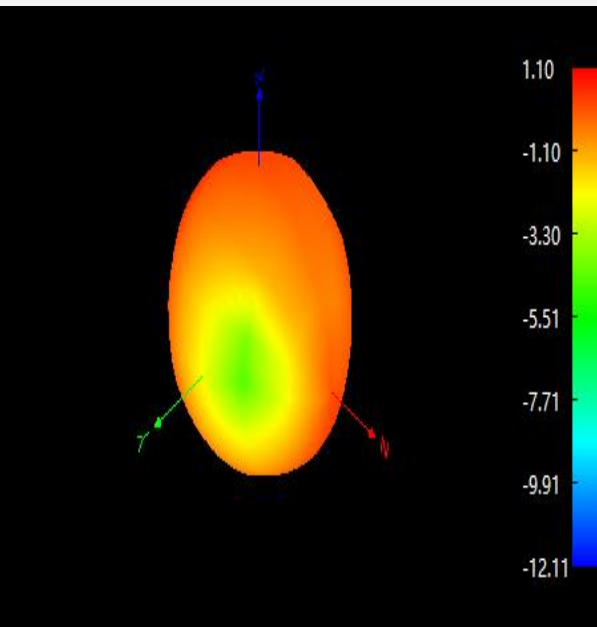
## 4.5 OTA Data-L

Test Equipment:	R&S CMW500		
Test Condition:	2D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
BT-L	0	-1.59	-81.28
	39	0.12	-80.34
	78	0.81	-79.69



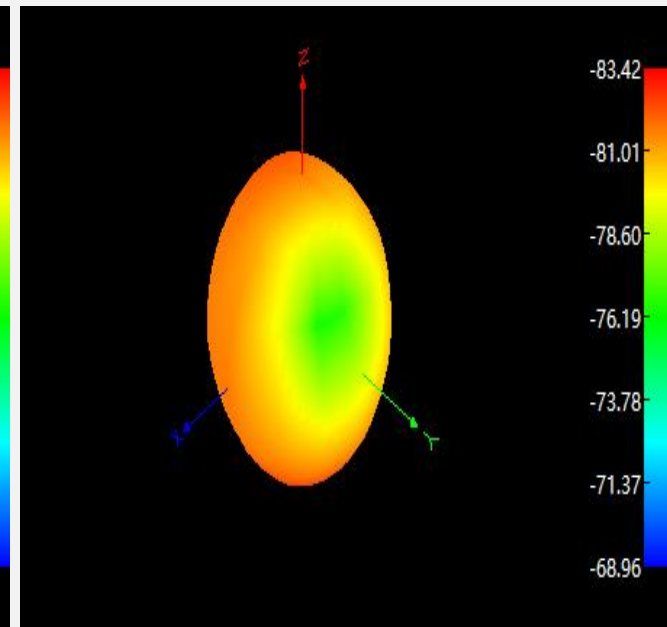
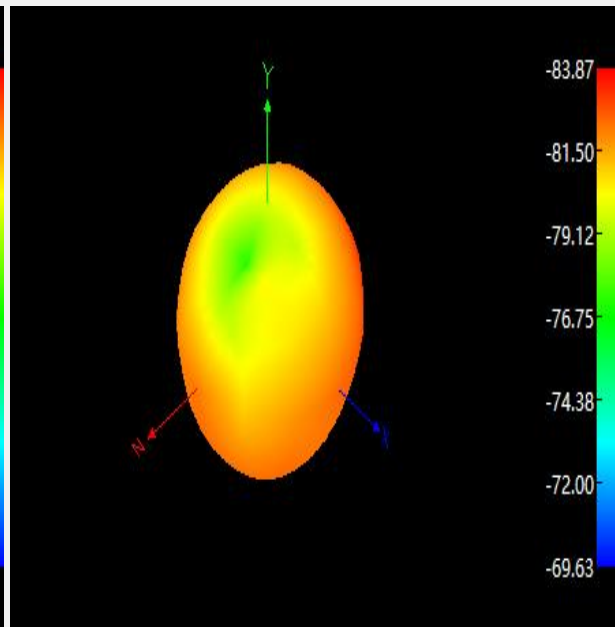
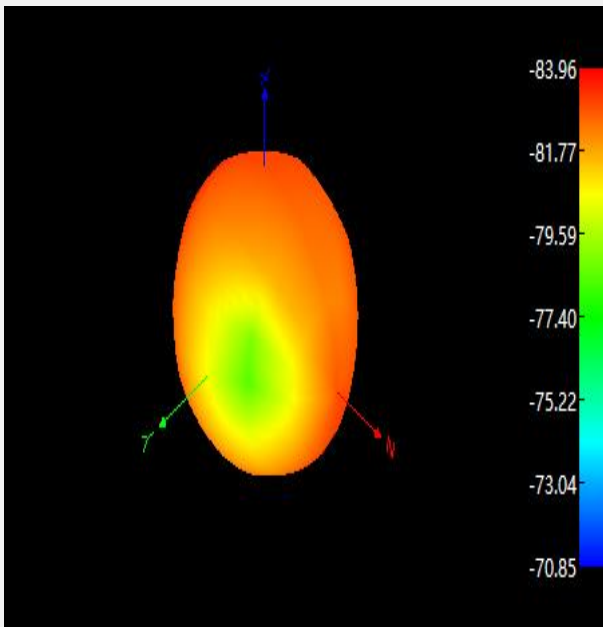
## 4. Test Result

### 4.4 2D Pattern——BT ANT



## 4. Test Result

### 4.4 2D Pattern——BT ANT

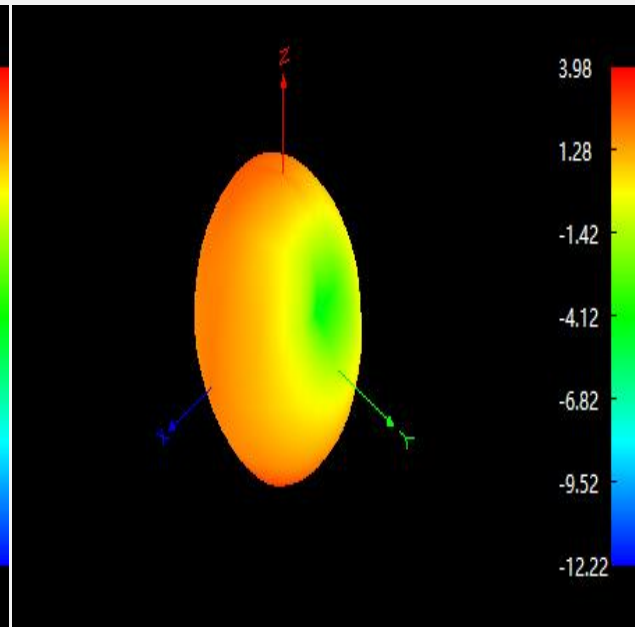
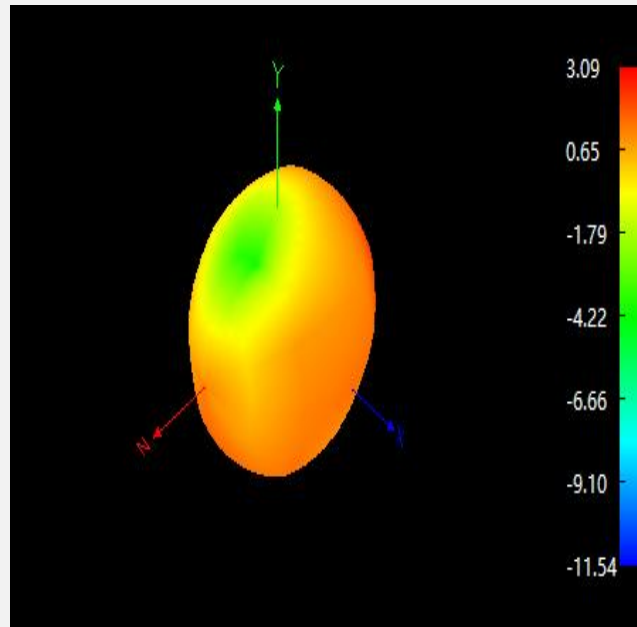
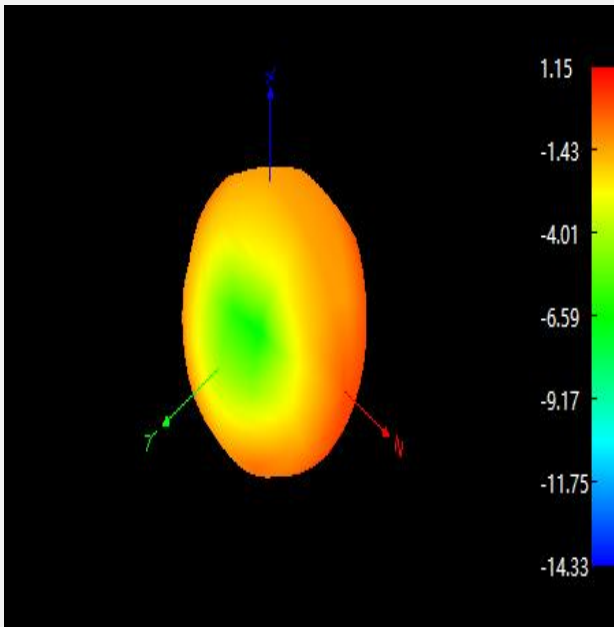


## 4.5 OTA Data-R

Test Equipment:	R&S CMW500		
Test Condition:	2D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
BT-R	0	-2.57	-78.75
	39	-0.76	-77.34
	78	0.01	-80.62

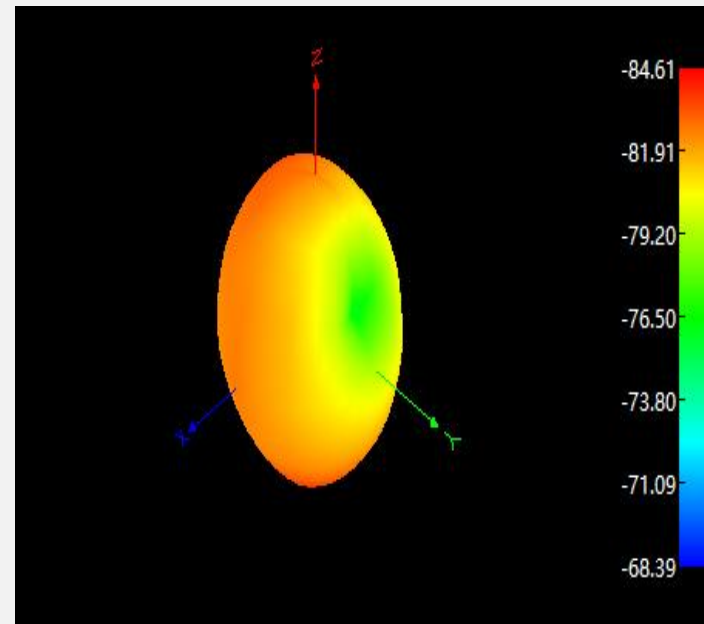
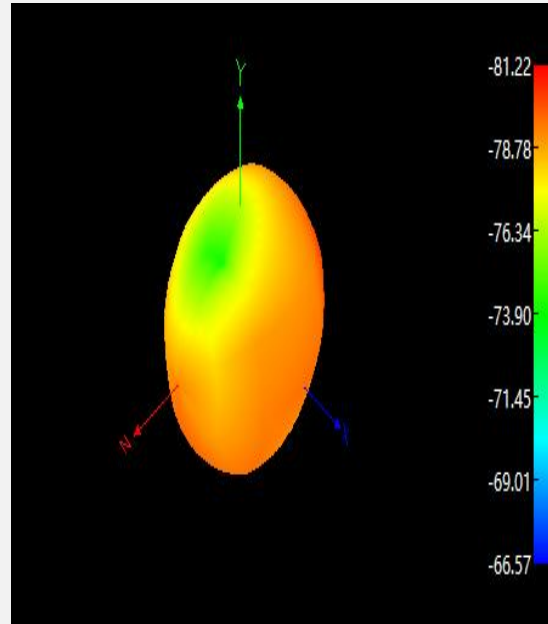
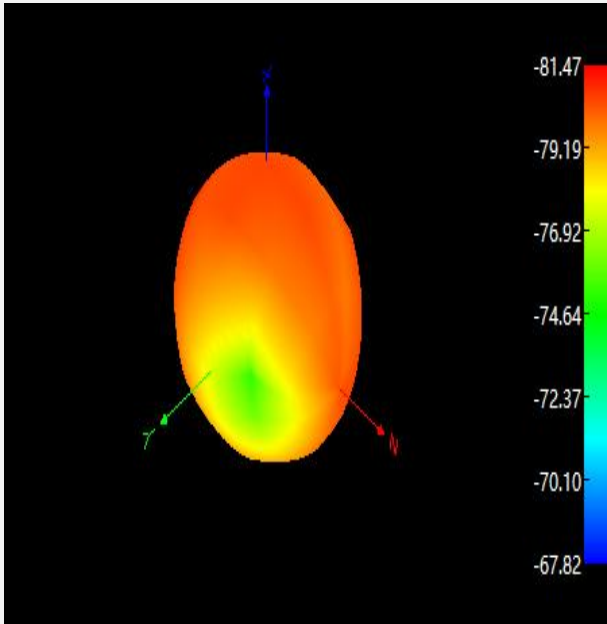
## 4. Test Result

### 4.4 2D Pattern——BT ANT



## 4. Test Result

### 4.4 2D Pattern——BT ANT





如有疑问请联系我们... ..

*Thank you!*