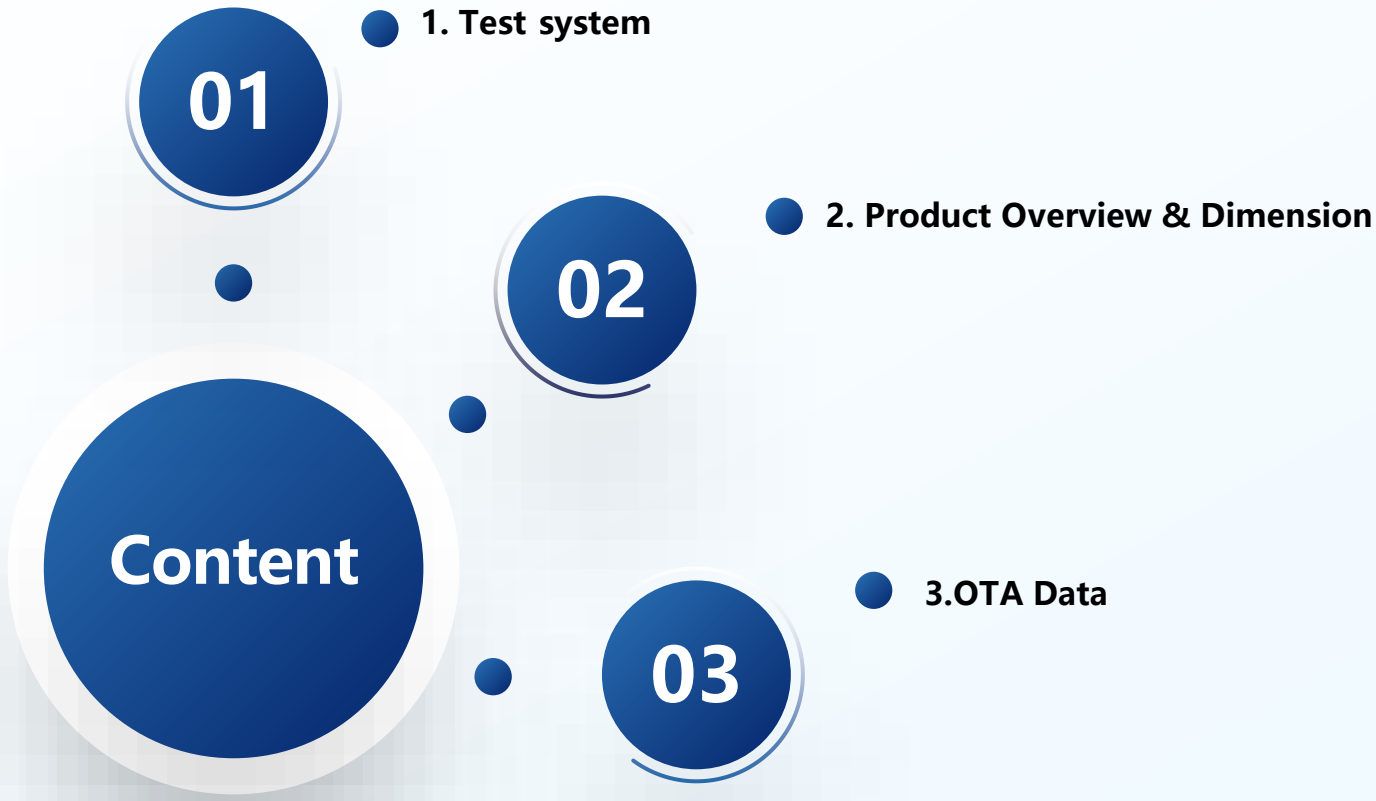
Customer	Tide
Project	T2510W
Antenna Revision	A0
Prepared by	15993920520
Checked by	17279710721
Date	2025.10.28

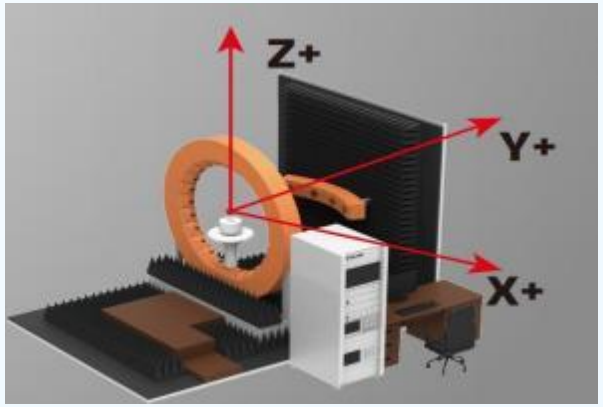
Purpose

This report is to measure the performance of antenna for T2510W The antenna operating frequency at 2400MHZ All test data are showed as below.

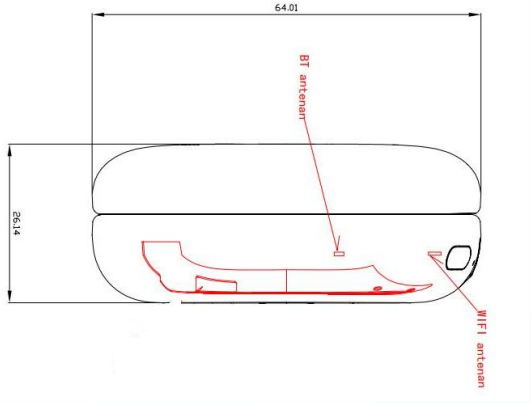


1.TestSystem

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



2.Product Overview & Dimension



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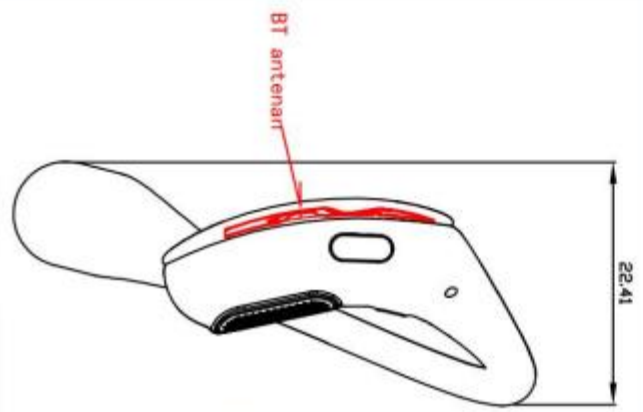
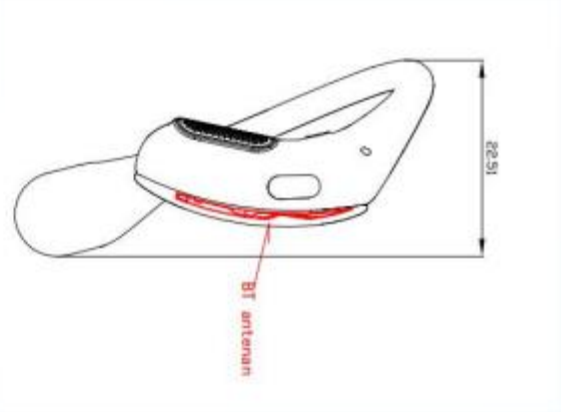
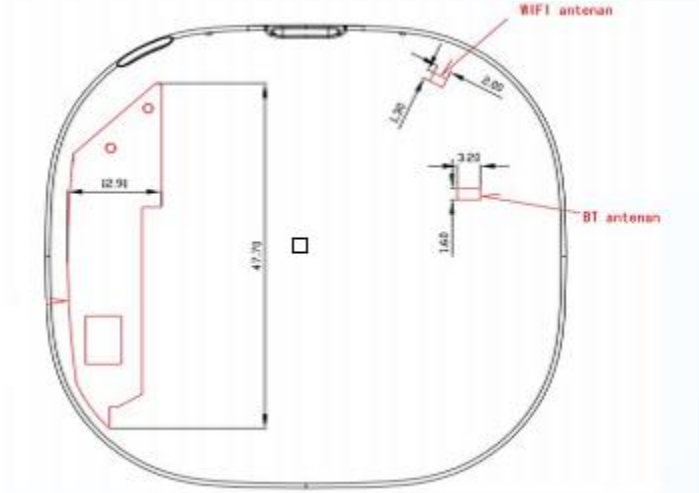
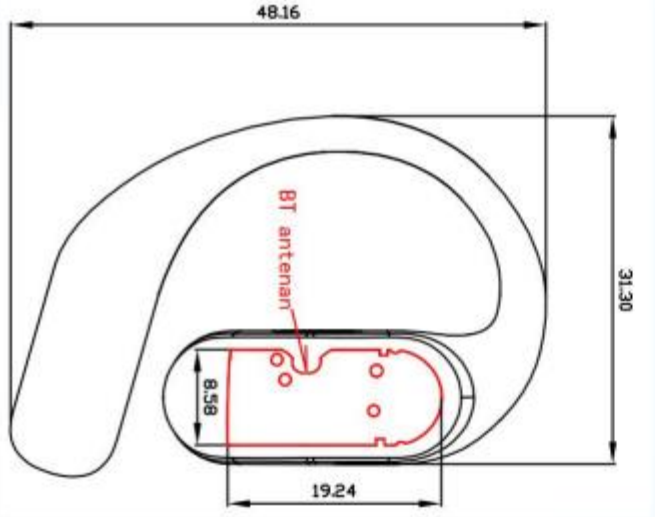
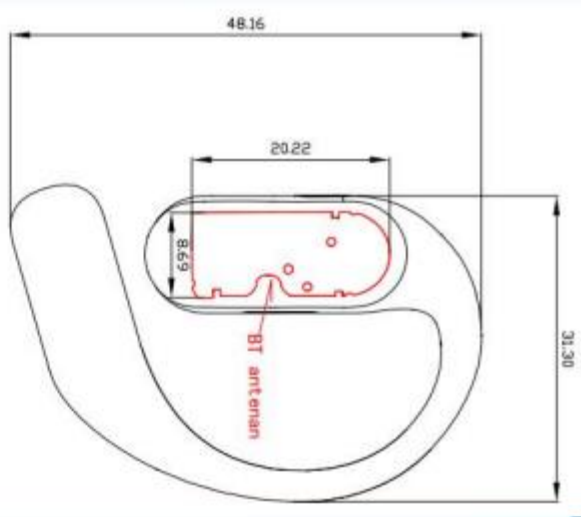


L



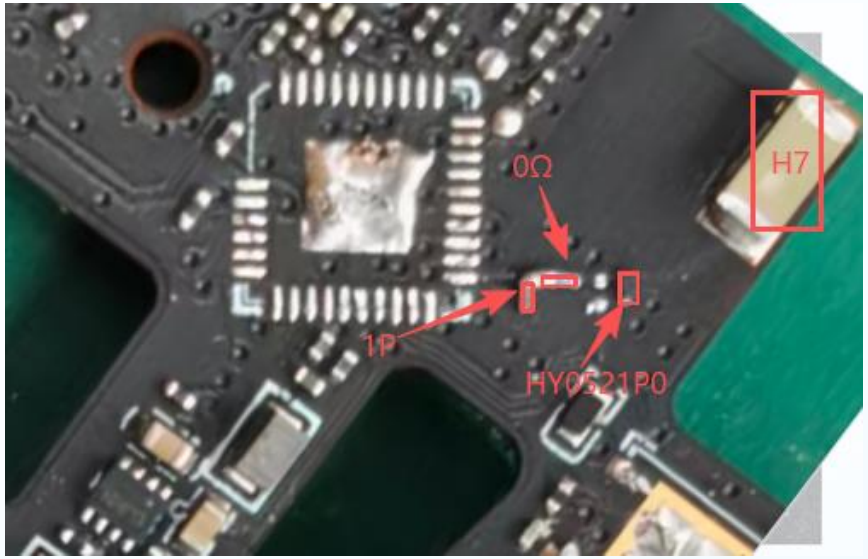




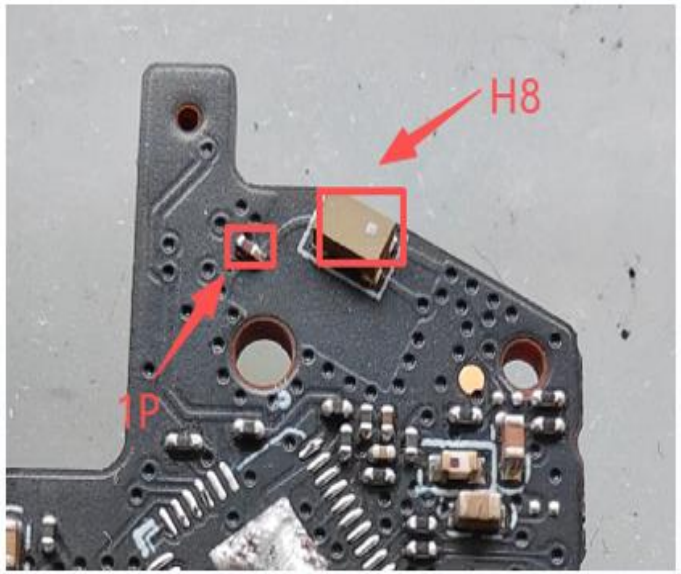


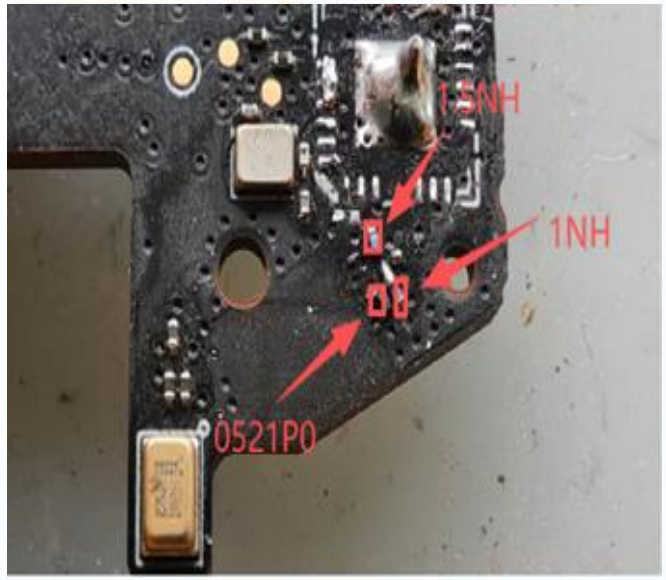
Matching circuit

Bluetooth



WIFI

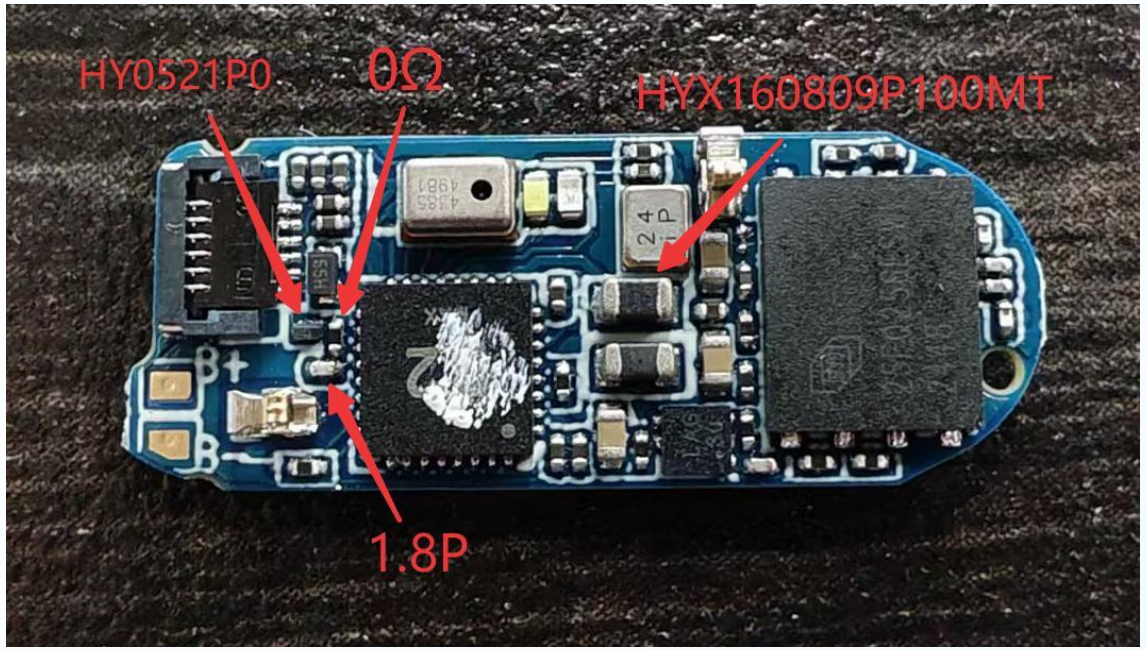




Matching circuit

Antenna version

L



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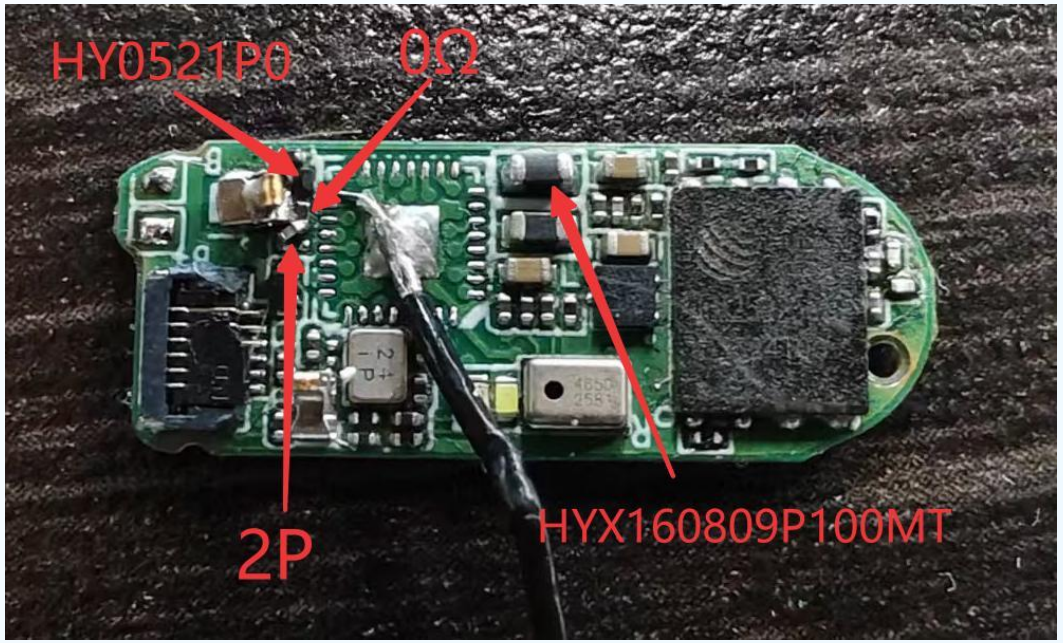
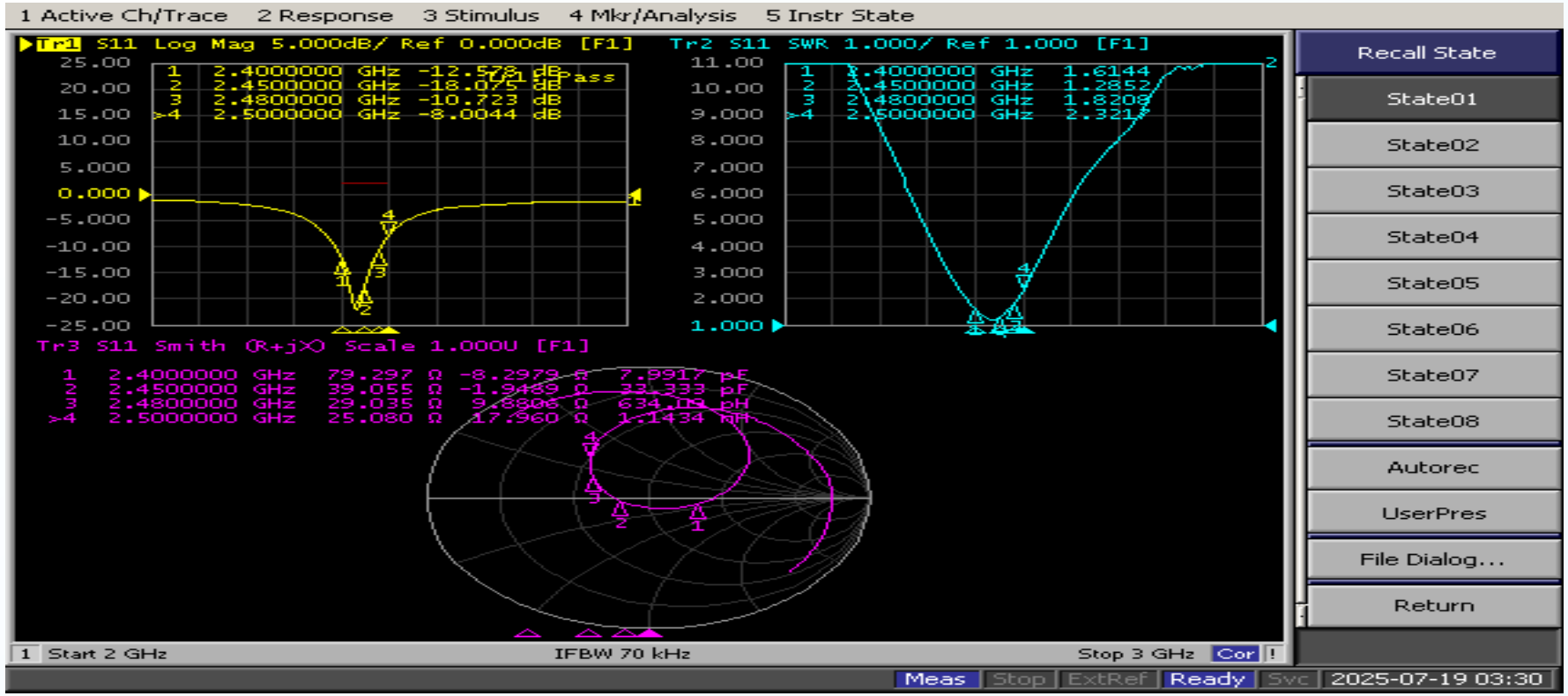


2.Test Result VSWR&Log Mag&Smith(Ω) CASE Bluetooth



Frequency (MHz)	2400	2450	2480	2500
Log Mag	-12.6	-18.1	-10.7	-8.0
Smith(Ω)	79.3	39.1	29.0	25.1
VSWR	1.6	1.3	1.8	2.3

CASE Bluetooth

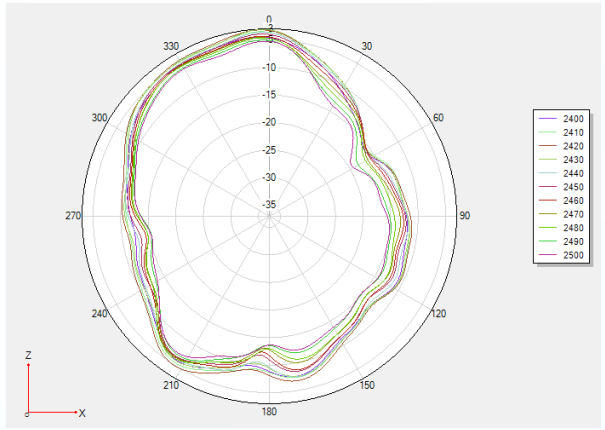
3.Test Result

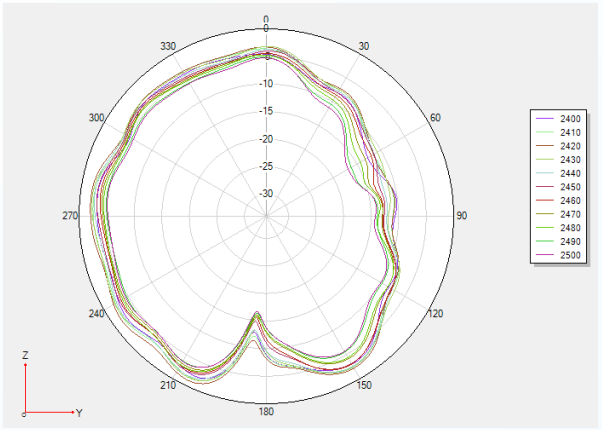
Frequency (MHz)	Efficiency (%)	Max GAIN (dBi)
2400	29.72	-0.9
2410	31.05	-0.62
2420	32.43	-0.58
2430	32.06	-0.68
2440	32.21	-0.72
2450	33.33	-0.64
2460	32.44	-0.63
2470	31.73	-0.67
2480	28.43	-0.76
2490	27.63	-0.59
2500	25.46	-0.64

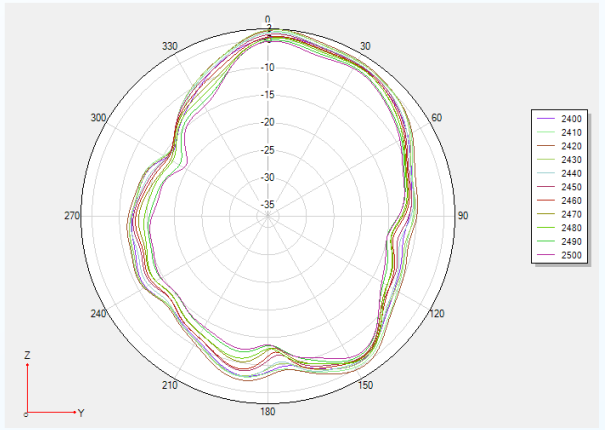
CASE Bluetooth

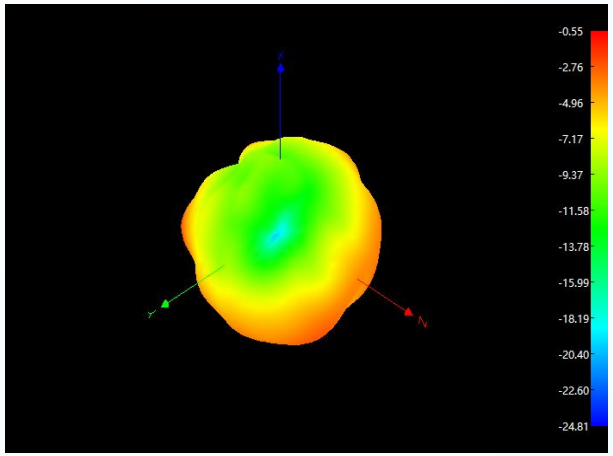
3. Test Result

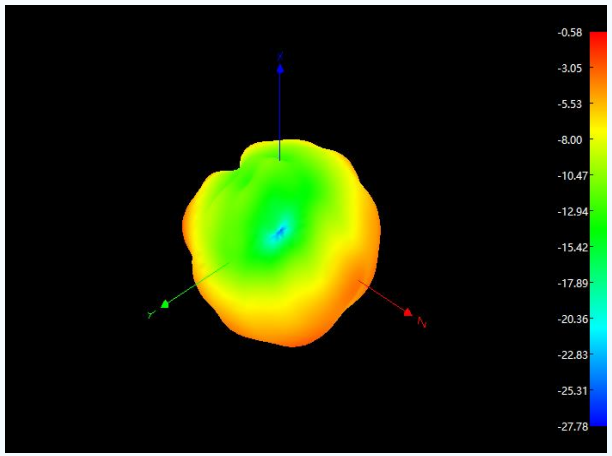
3.1 2D Pattern——BTANT

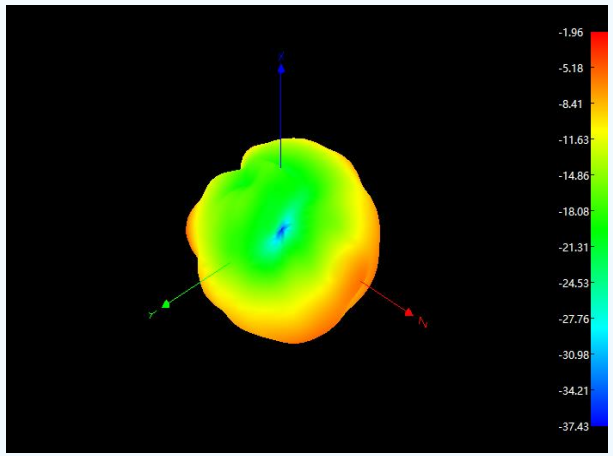










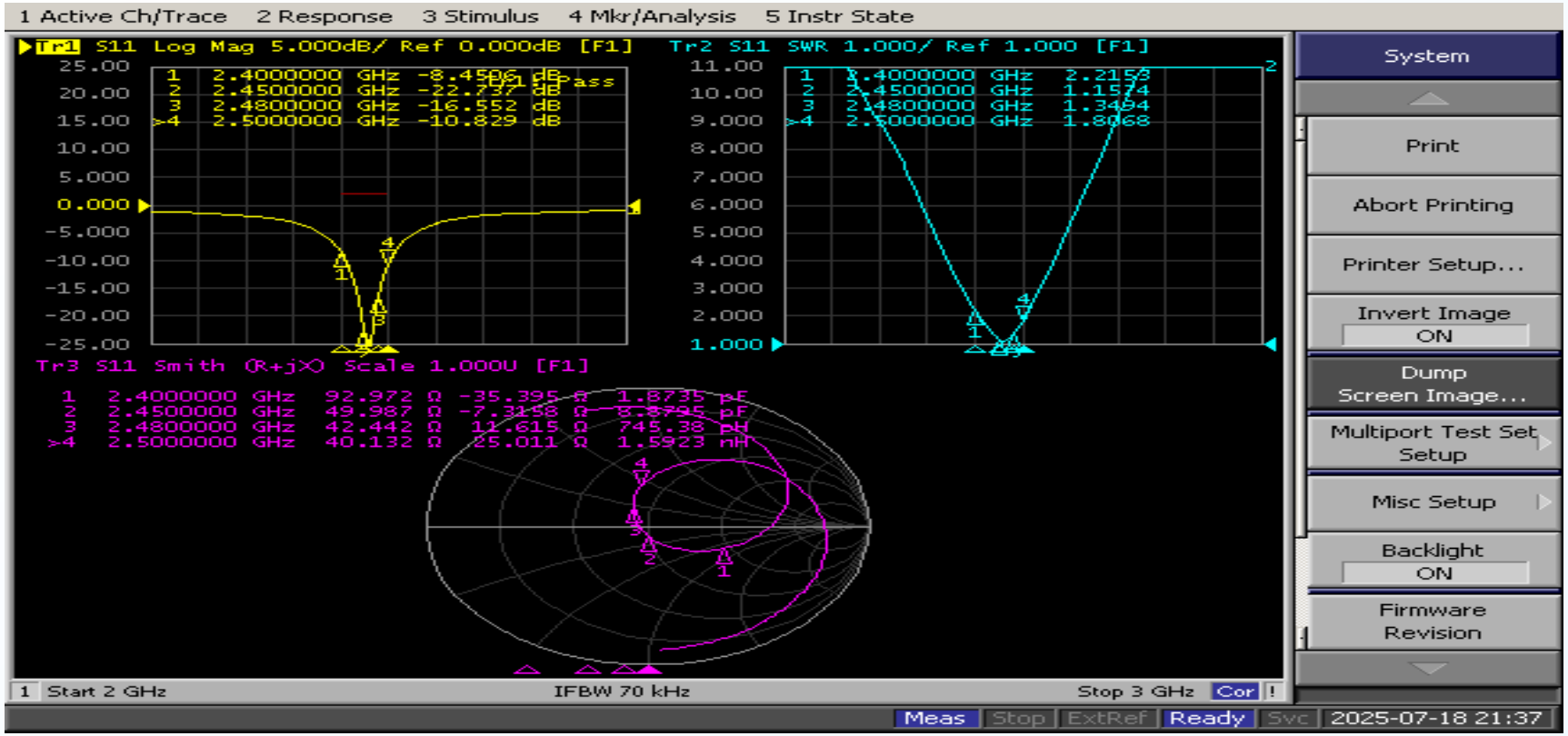


3.OTA Data-freedom

CASE Bluetooth

Test Equipment:	R&S CMW500		
Test Condition:	3D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
BT	0	0.98	-88.21
	39	2.14	-88.29
	78	0.78	-8.56

2.Test Result VSWR&Log Mag&Smith(Ω) CASE WIFI



Frequency (MHz)	2400	2450	2480	2500
Log Mag	-8.5	-22.7	-16.5	-10.8
Smith(Ω)	92.9	49.9	42.4	40.1
VSWR	2.21	1.15	1.35	1.8

CASE WIFI

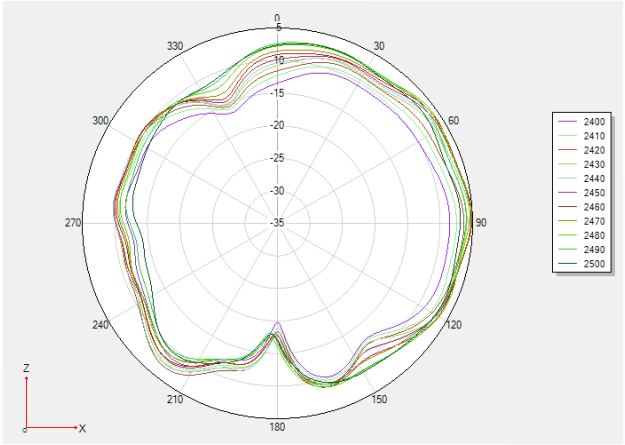
3.Test Result

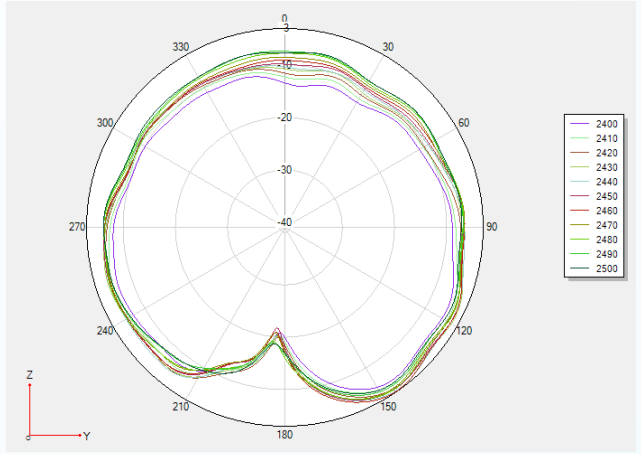
Frequency (MHz)	Efficiency (%)	Max GAIN (dBi)
2400	23.93	-1.88
2410	25.67	-1.72
2420	27.7	-1.68
2430	29.68	-1.63
2440	30.08	-1.89
2450	33.07	-1.72
2460	32.71	-1.59
2470	31.75	-1.5
2480	28.44	-1.58
2490	27.88	-1.61
2500	25.94	-1.57

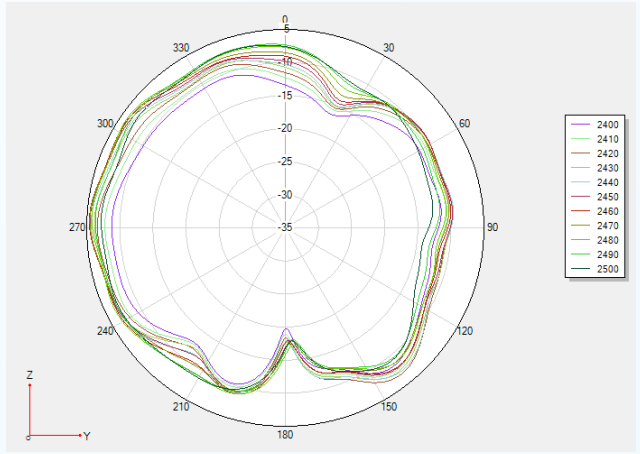
3. Test Result

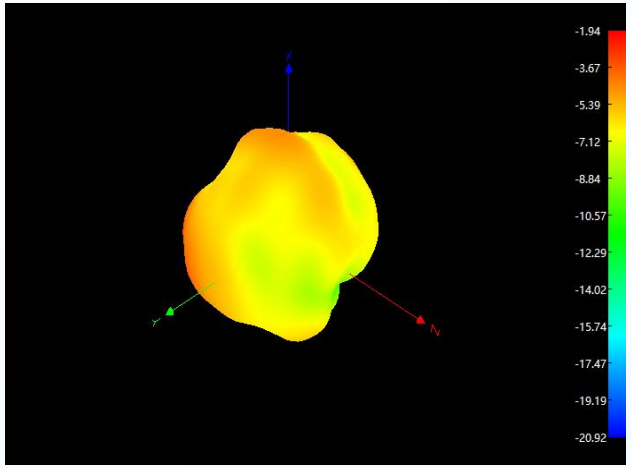
CASE WIFI

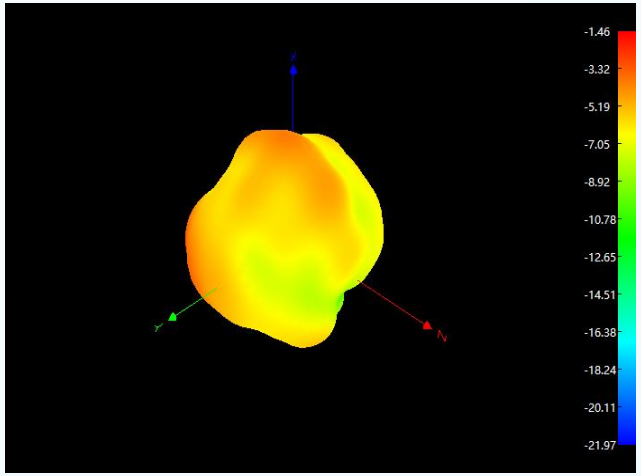
3.1 2D Pattern——WIFI ANT

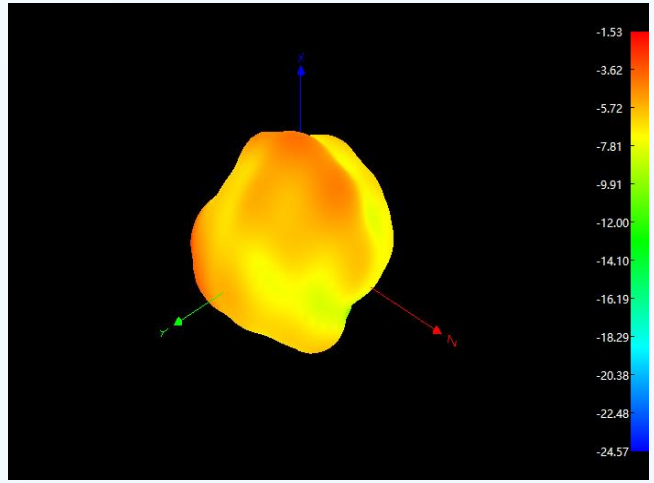




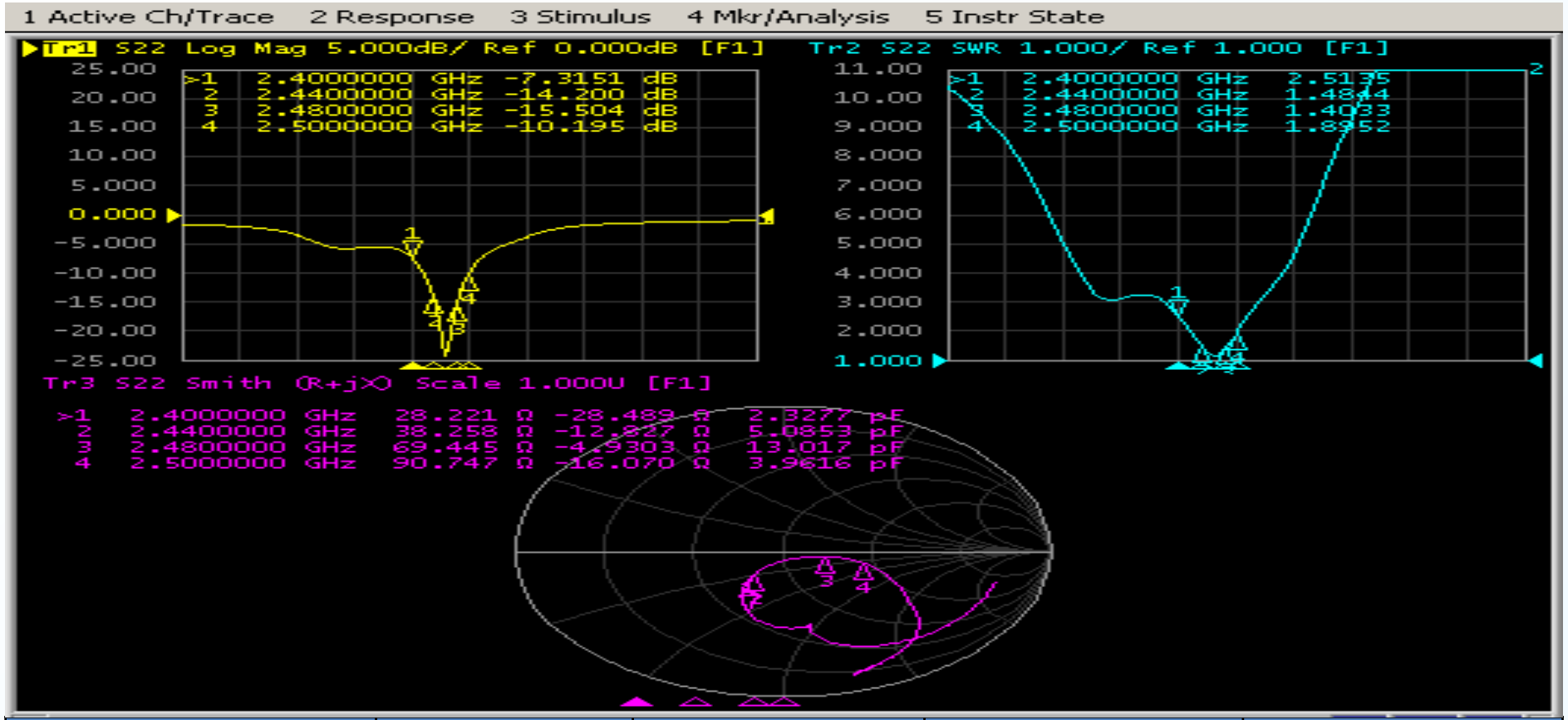








2.Test Result VSWR&Log Mag&Smith(Ω) earphone-L



Frequency (MHz)	2400	2440	2480	2500
Log Mag	-7.31	-14.20	-15.50	-10.19
Smith(Ω)	28.22	38.25	69.44	90.74
VSWR	2.51	1.48	1.40	1.89

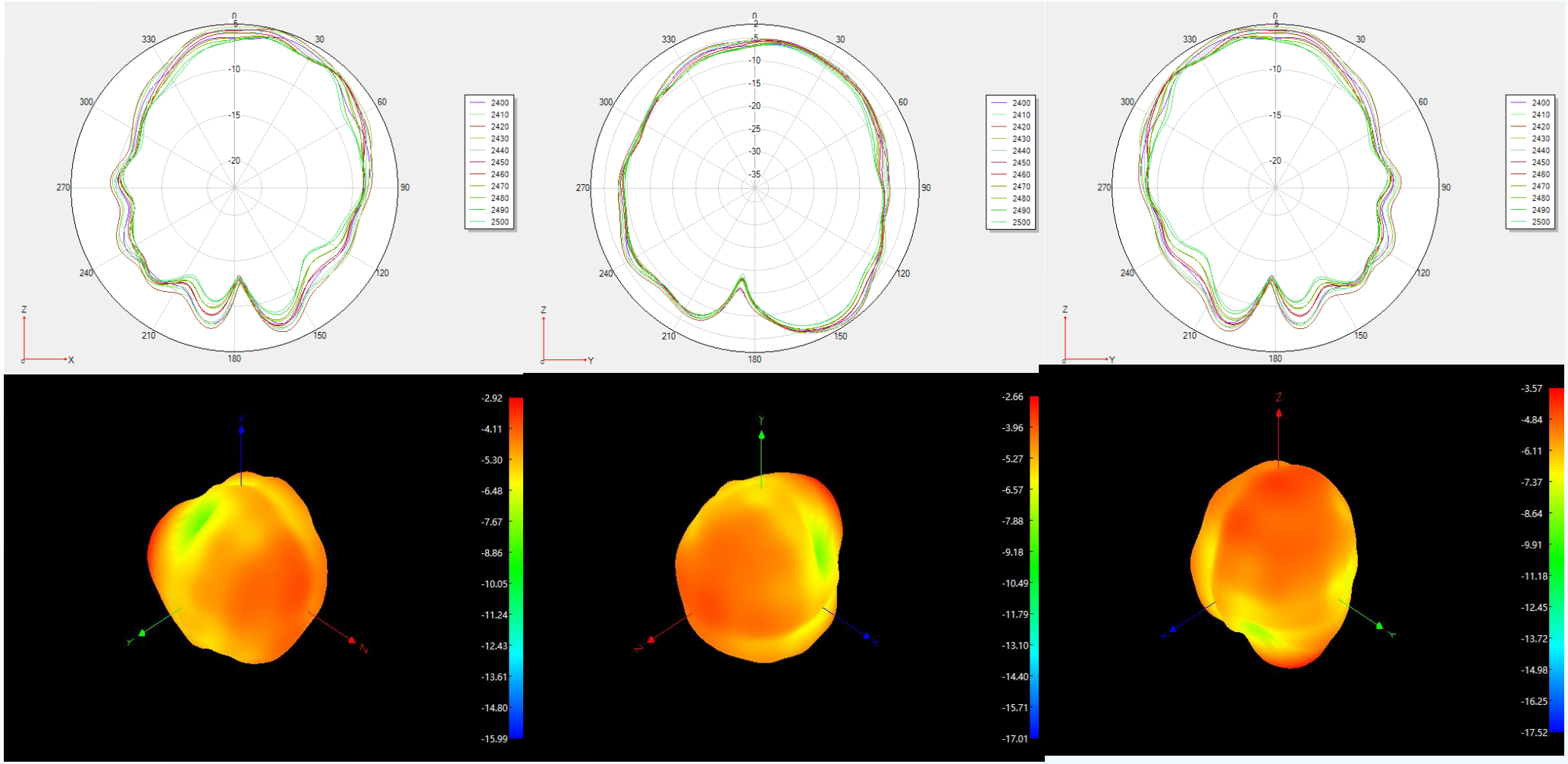
3. Test Result

earphone-L

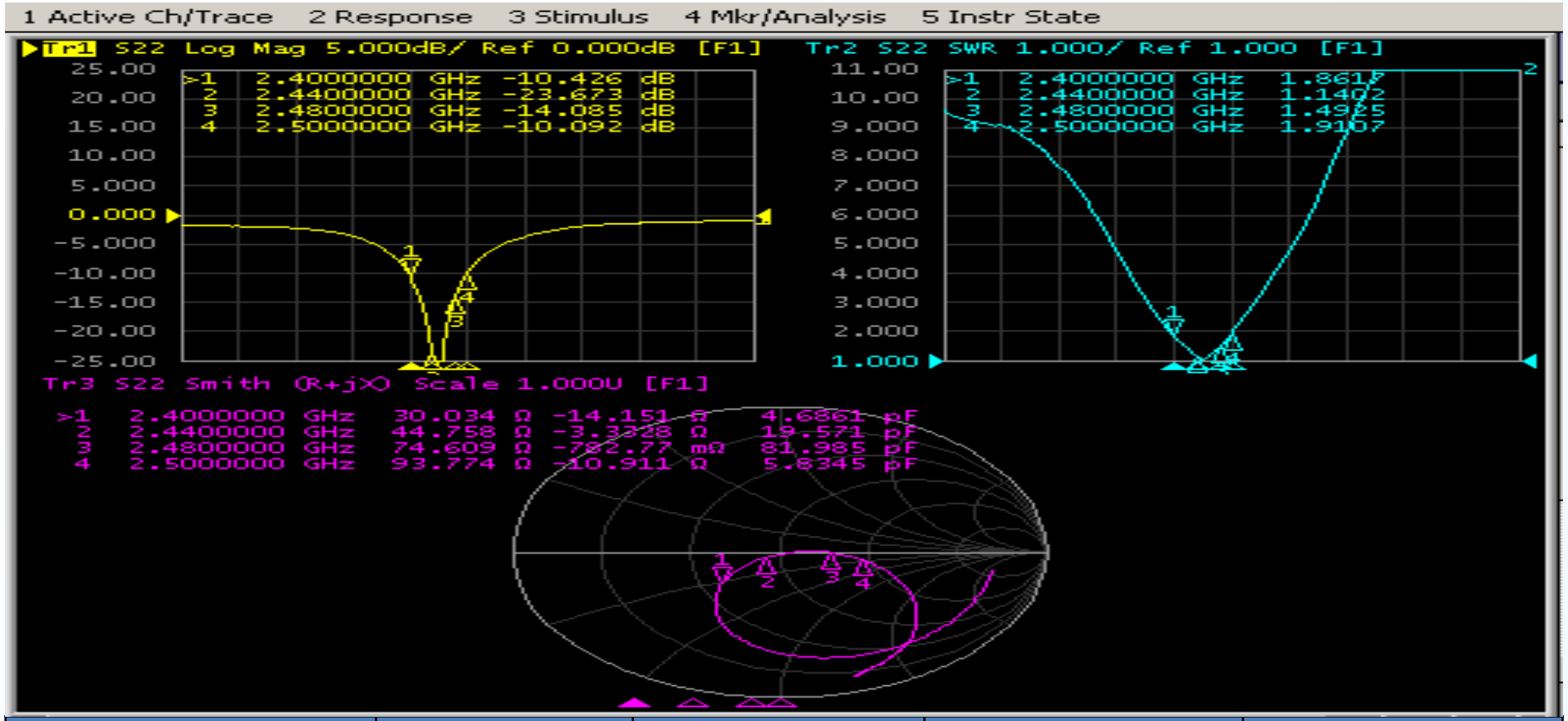
Frequency (MHz)	Efficiency (%)	Max GAIN (dBi)
2400	18.75	-2.35
2410	19.18	-2.45
2420	19.98	-2.3
2430	20.23	-2.43
2440	20.7	-2.66
2450	20.54	-2.55
2460	19.78	-2.6
2470	18.56	-2.4
2480	17.91	-2.45
2490	16.32	-2.36
2500	15.18	-2.56

3. Test Result

3.1 2D Pattern——BTANT L



2.Test Result VSWR&Log Mag&Smith(Ω) earphone-R



Frequency (MHz)	2400	2440	2480	2500
Log Mag	-10.42	-23.67	-14.08	-10.09
Smith(Ω)	30.03	44.75	74.60	93.77
VSWR	1.86	1.14	1.49	1.91

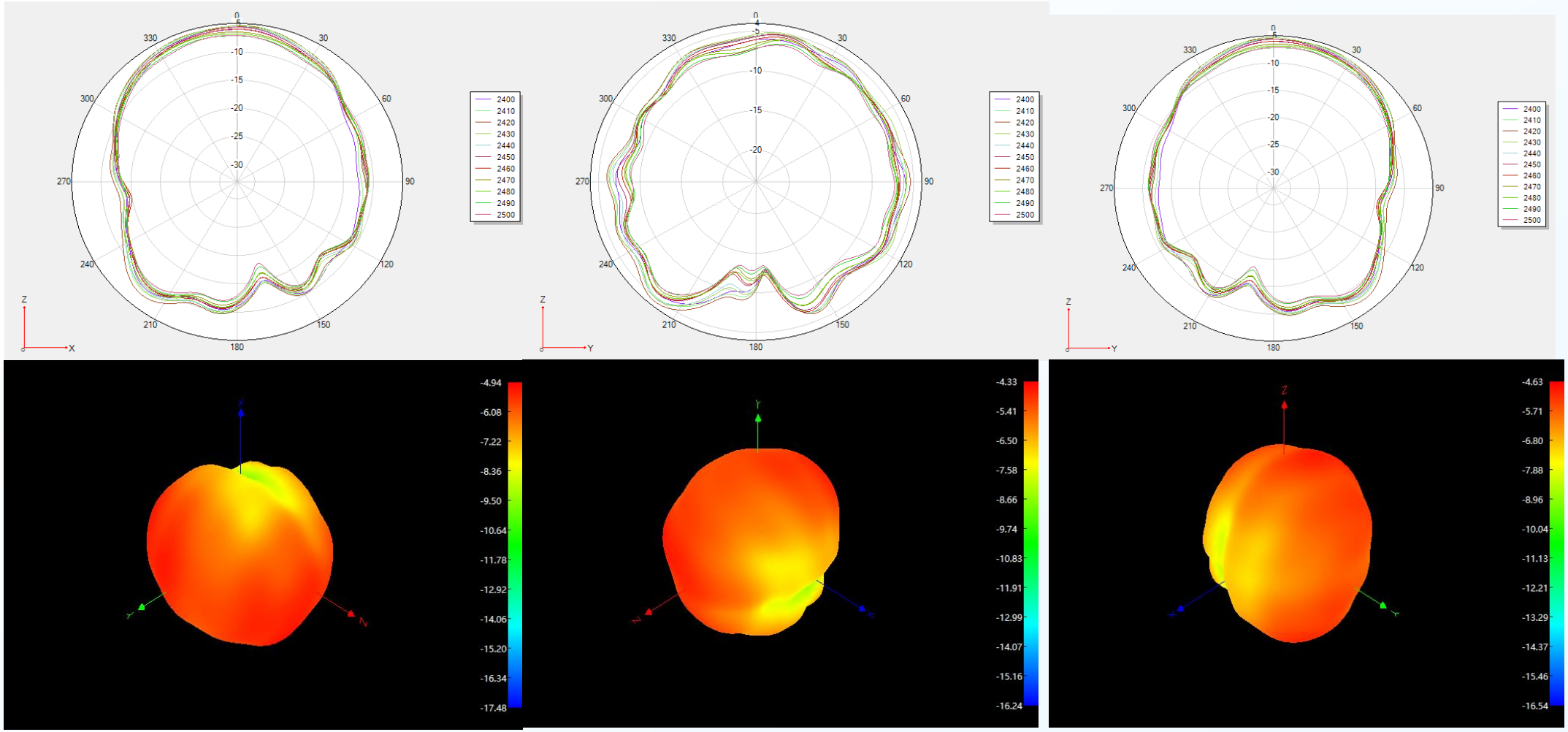
3. Test Result

earphone-R

Frequency (MHz)	Efficiency (%)	Max GAIN (dBi)
2400	17.36	-4.65
2410	17.77	-4.74
2420	18.46	-4.81
2430	18.89	-4.56
2440	19.28	-4.15
2450	19.33	-4.45
2460	18.75	-4.59
2470	17.91	-4.66
2480	17.32	-4.23
2490	16.46	-4.19
2500	15.25	-4.25

3. Test Result

3.1 2D Pattern——BTANT R



3.OTA Data

1#

Test Equipment:	R&S CMW500		
Test Condition:	3D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
L	0	-2.77	-83.39
	39	-1.98	-83.86
	78	-1.99	-84.5
R	0	-2.88	-82.97
	39	-1.8	-83.4
	78	-2.73	-83.48

3.OTA Data

2#

Test Equipment:	R&S CMW500		
Test Condition:	3D chamber		
Band	Channel	TRP(dBm)	TIS(dBm)
L	0	-2.6	-83.47
	39	-1.67	-84.31
	78	-2.08	-83.95
R	0	-2.46	-83.49
	39	-2.06	-83.91
	78	-2.43	-84.26

WORK REPORT