



Project	T16
Antenna Revision	A0
Manufacturer	Shenzhen Helixun Technology Co., LTD
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Checked by	17279710721

Purpose

This report is to measure the performance of antenna for **T16** The antenna operating frequency at 2400-2500MHz, All test data are showed as below.

Content

1. est system
- 2.Product Overview &Dimension
- 3.OTA

1. Test System

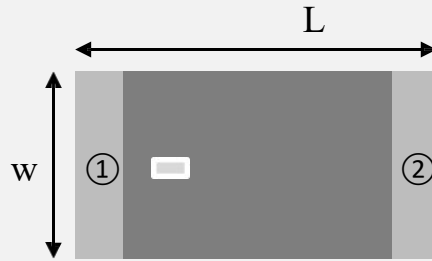
Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5071B
OTA Test	TRP&TIS	Agilent 8960 & CMW500 STIMO
Gain & Efficiency	Gain & Efficiency	SATIMO Agilent 5071C



2. Product Overview & Dimension

Antenna Type: SMD Antenna

Dimensions (Unit: mm)



(Top View)

①	INPUT
②	GND



(Bottom View)

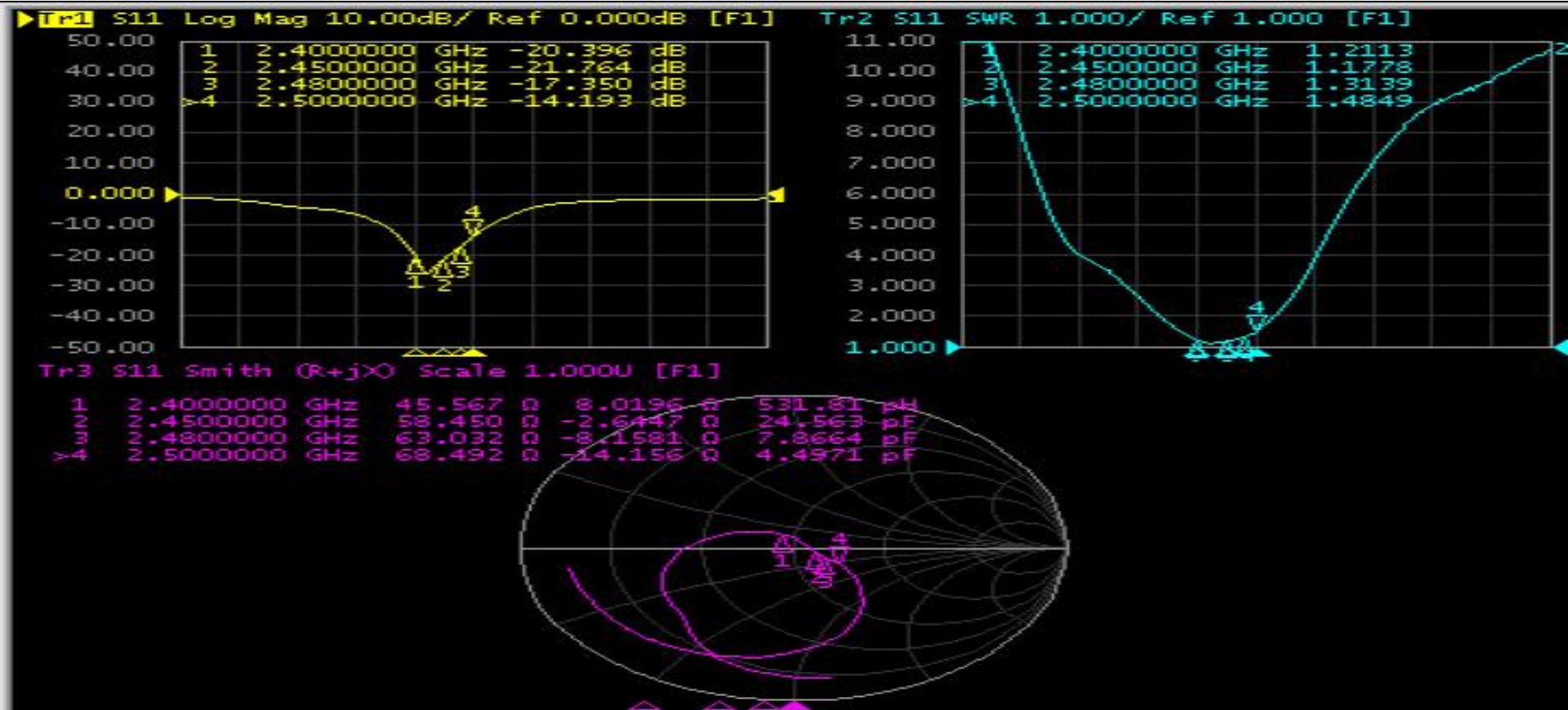


(Side View)

Symbols	L	W	T	A
Dimensions	2.0+/-0.2	1.25+/-0.2	0.6+/-0.1	0.6+/-0.1

3. Test Result

3.1 S11 Parameter-VSWR L



requeency (MHz)	2400	2450	2480	2500
VSWR	1.21	1.17	1.31	1.48

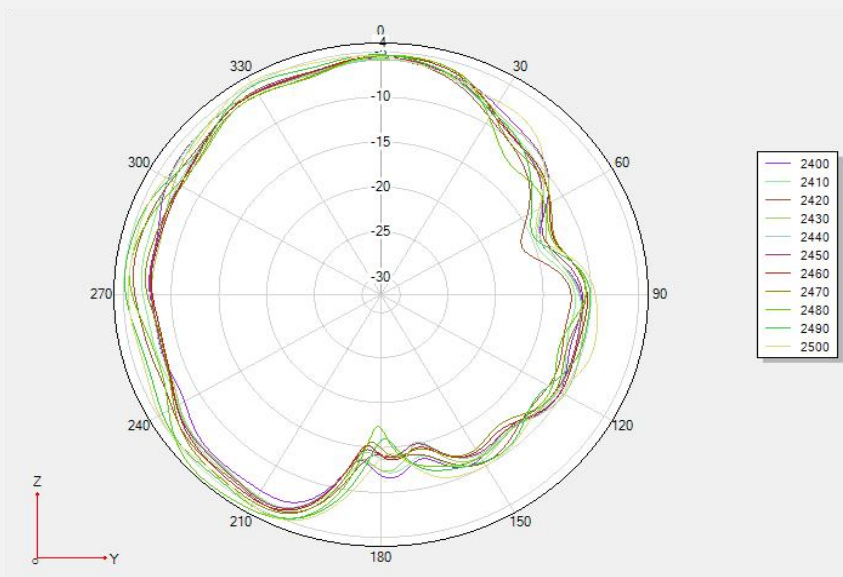
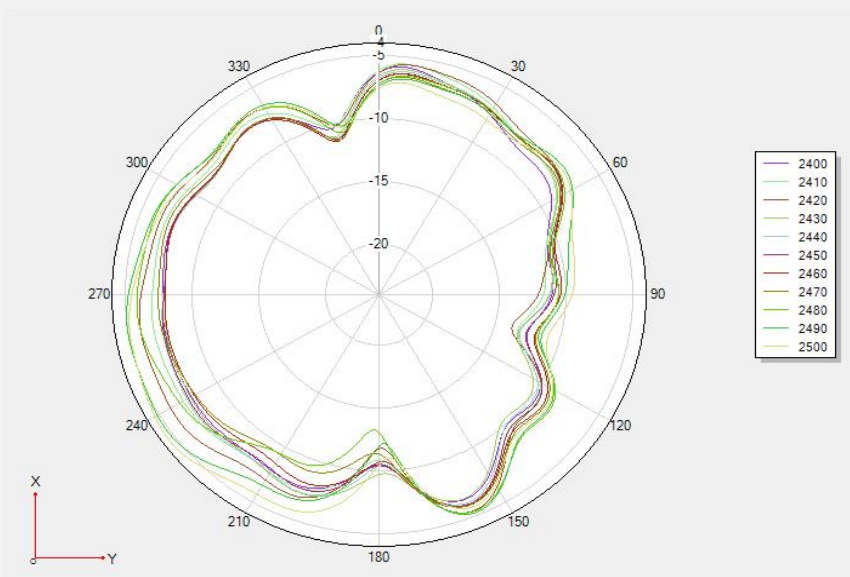
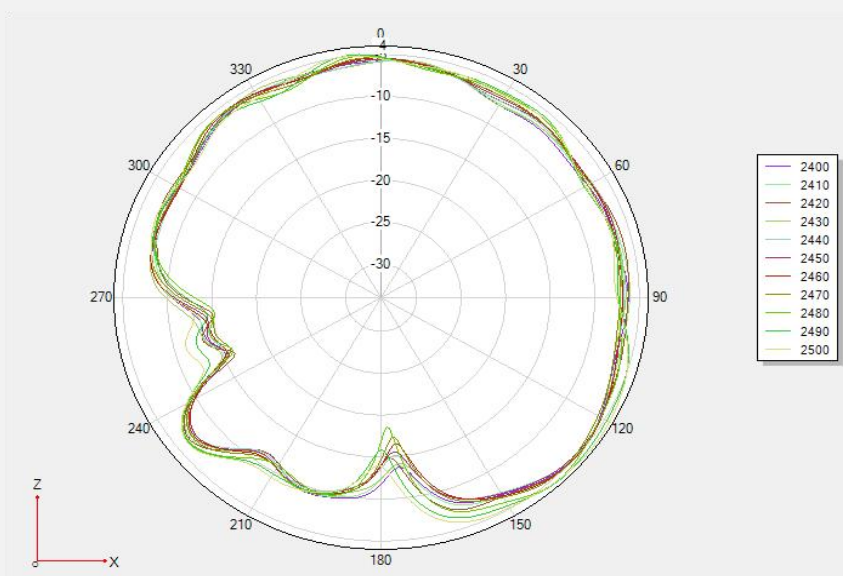
3. Test Result-L

3.2 Gain & Efficiency—ANT

Frequency (MHz)	Efficiency (%)	Max GAIN (dBi)
2400	26.74	-1.56
2410	27.29	-1.47
2420	27.87	-1.21
2430	27.03	-1.75
2440	27.11	-1.84
2450	27.41	-1.55
2460	27.41	-1.55
2470	26.81	-1.18
2480	27.79	-0.51
2490	29.28	-0.31
2500	29.84	-0.17

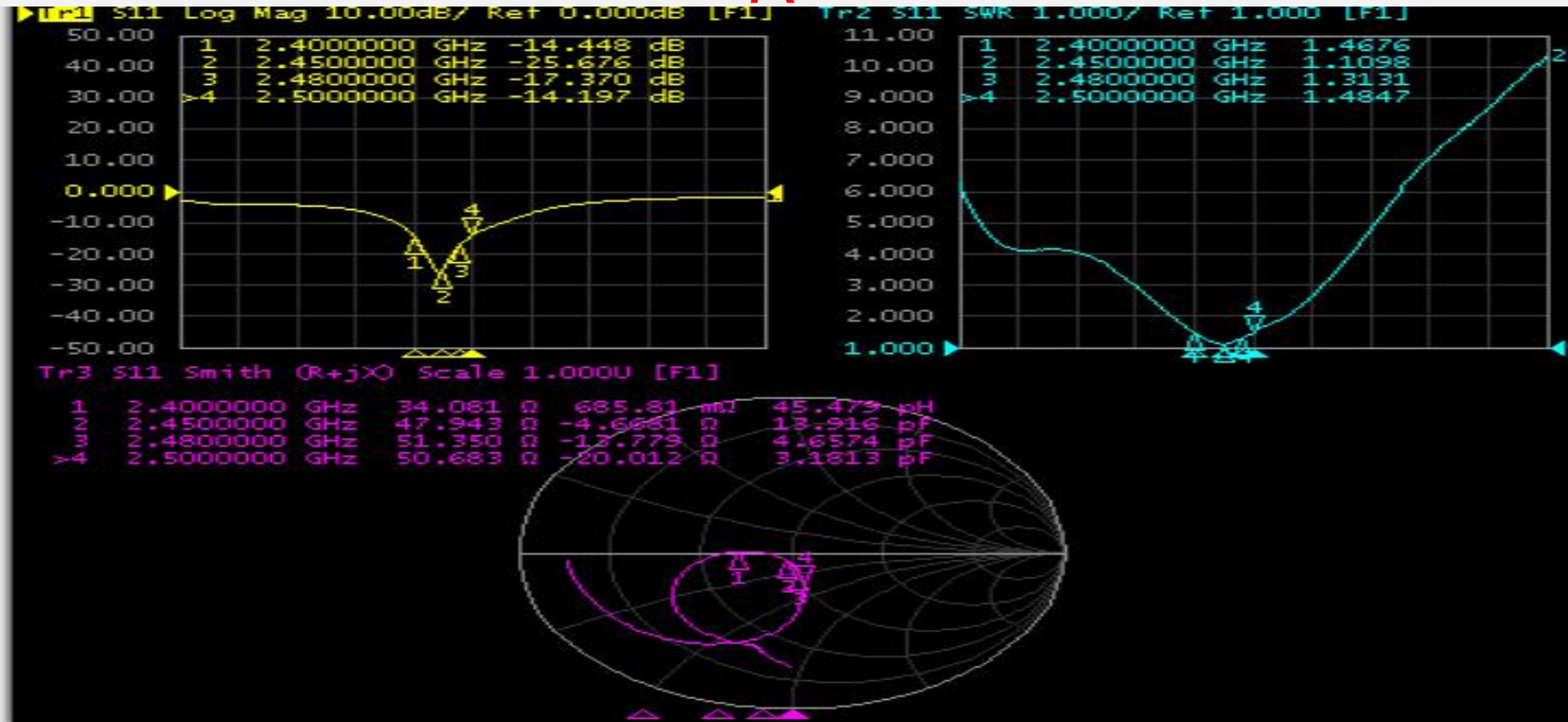
3. Test Result-L

3.3 2D Pattern—BT ANT



3. Test Result

3.1 S11 Parameter-VSWR *R*



requeency (MHz)	2400	2450	2480	2500
VSWR	1.46	1.10	1.31	1.48

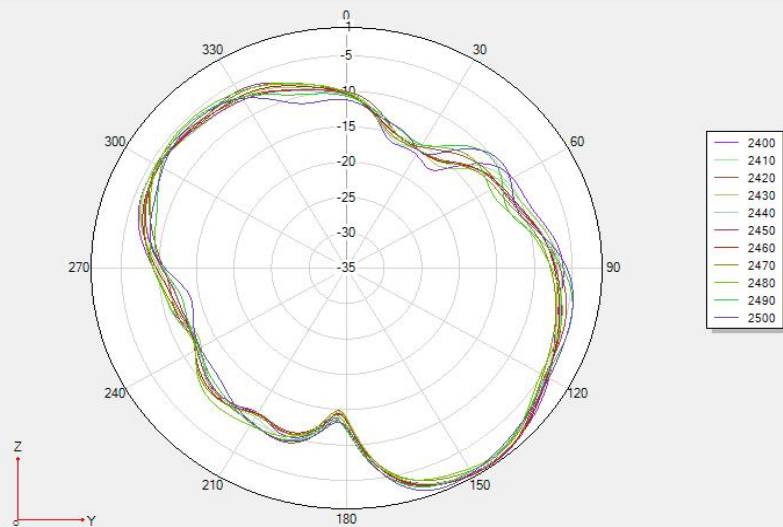
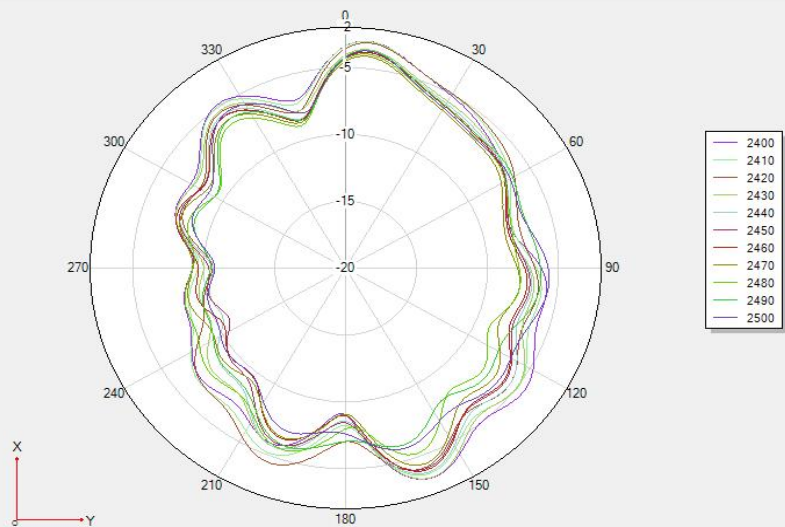
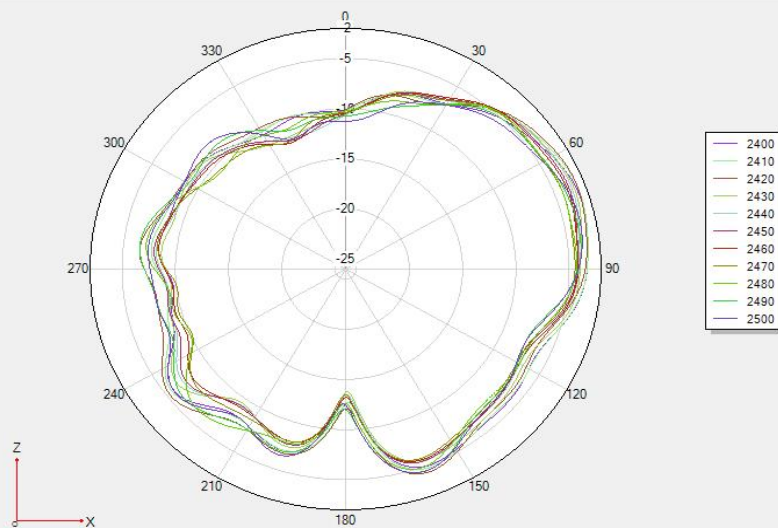
3. Test Result-**R**

3.2 Gain & Efficiency—**ANT**

Frequency (MHz)	Efficiency (%)	Max GAIN (dBi)
2400	29.59	-0.73
2410	29.54	-1.04
2420	29.18	-1.31
2430	29.43	-1.11
2440	28.81	-1.33
2450	28.61	-1.32
2460	28.32	-1.18
2470	26.54	-1.49
2480	26.45	-1.48
2490	26.54	-1.27
2500	26.32	-0.92

3. Test Result-R

3.3 2D Pattern—BT ANT

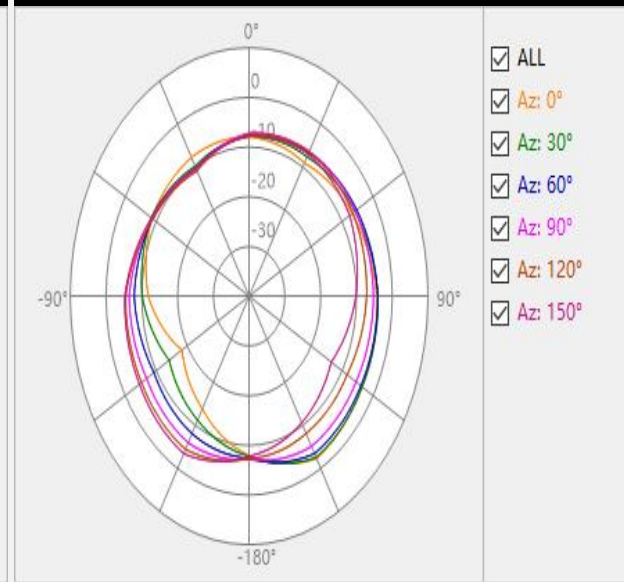
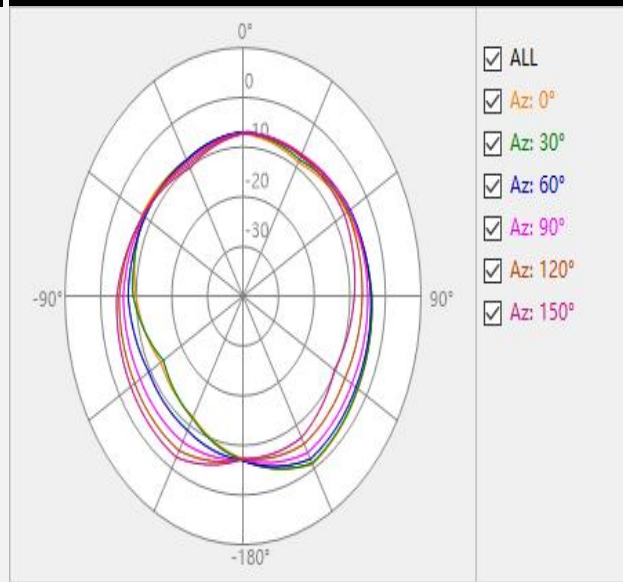
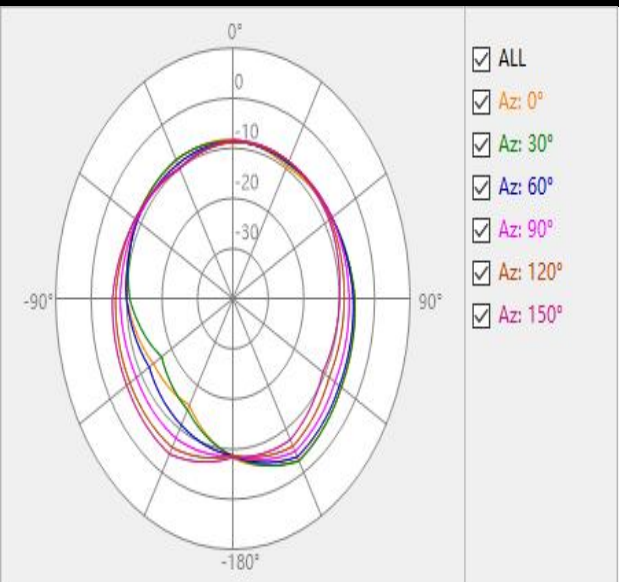
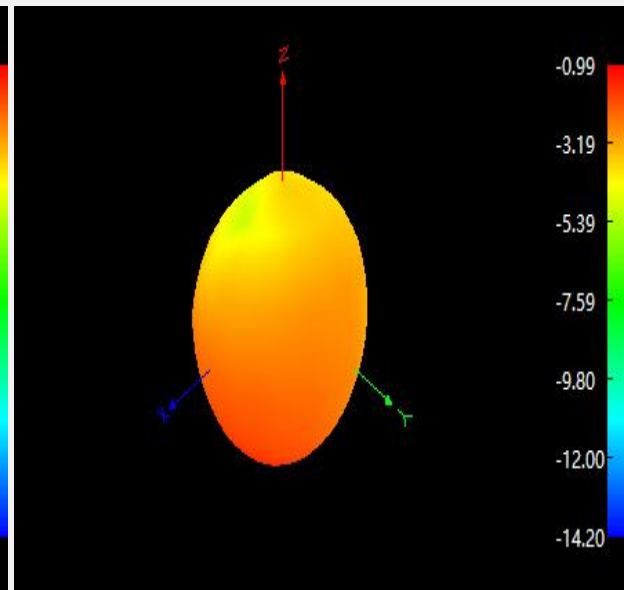
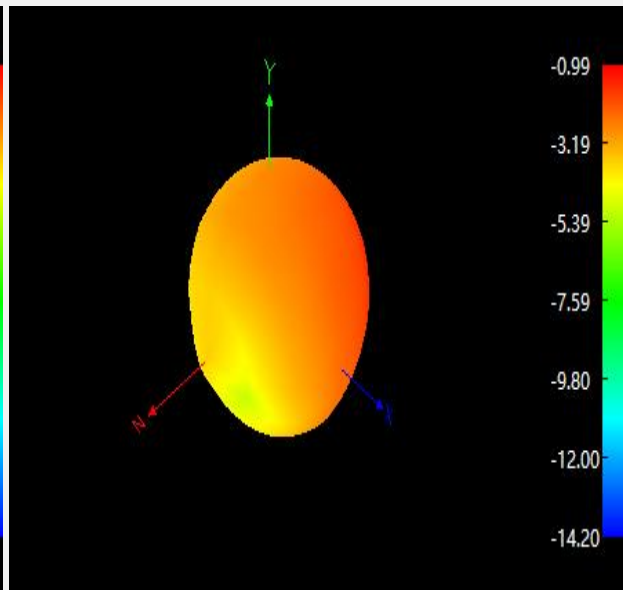
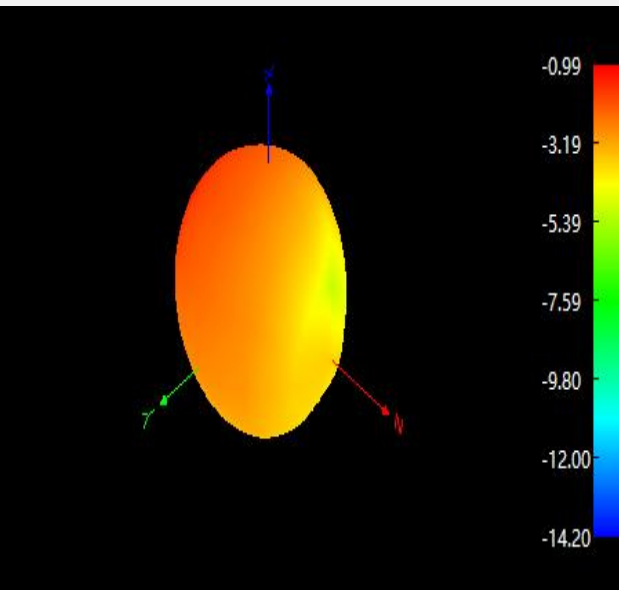


3.OTA Data

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band		Channel	TRP(dBm)	TIS(dBm)
BT	L	0	-4.05	-77.88
		39	-3.55	-77.45
		78	-3.49	-78.08
BT	R	0	-2.41	-78.77
		39	-2.51	-77.92
		78	-3.22	-77.26

3.Test

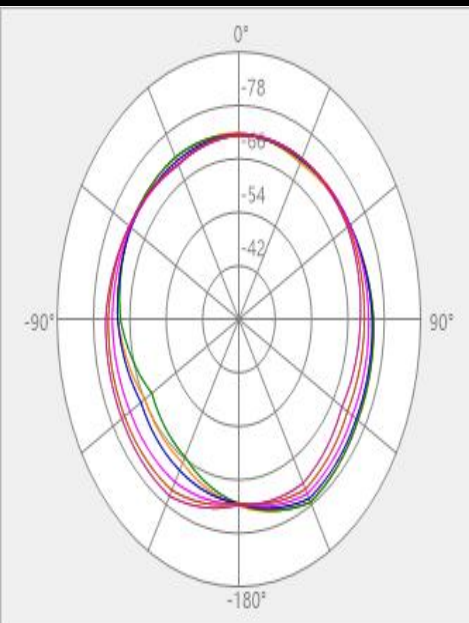
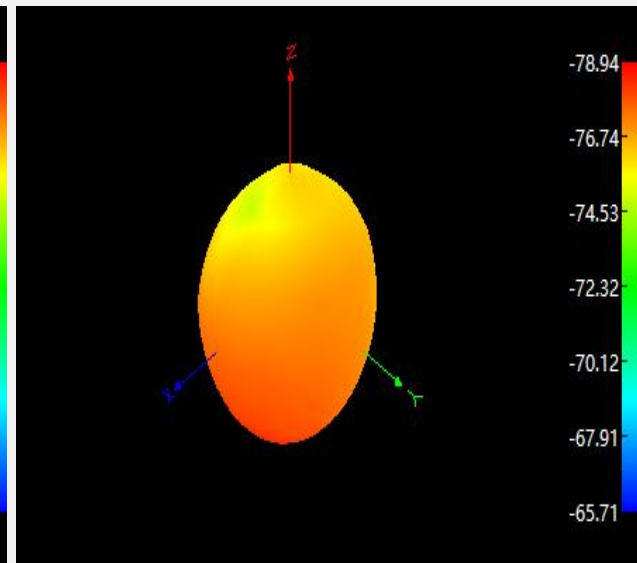
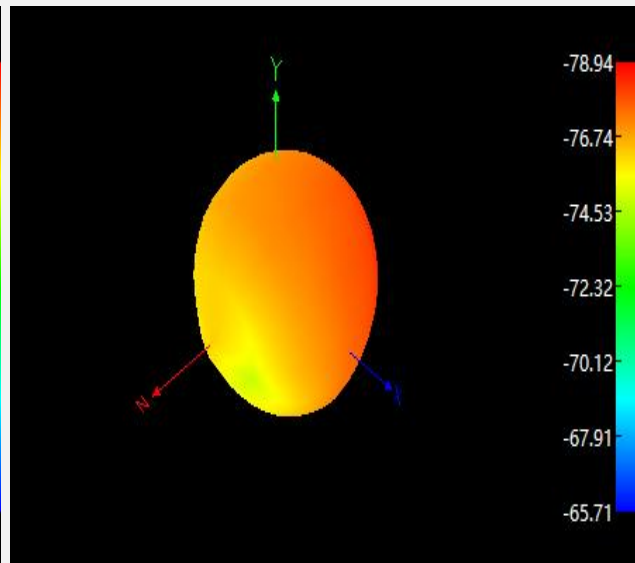
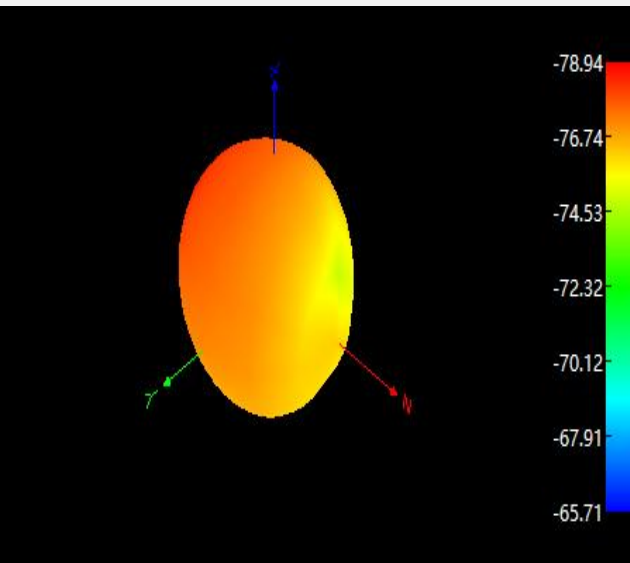
Result L-TRP



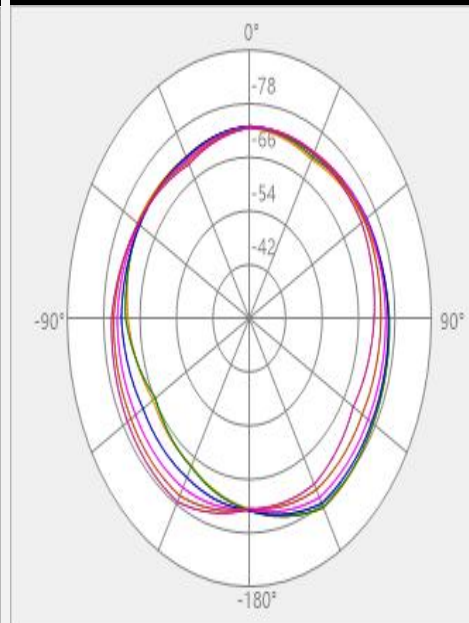
3.Test

Result

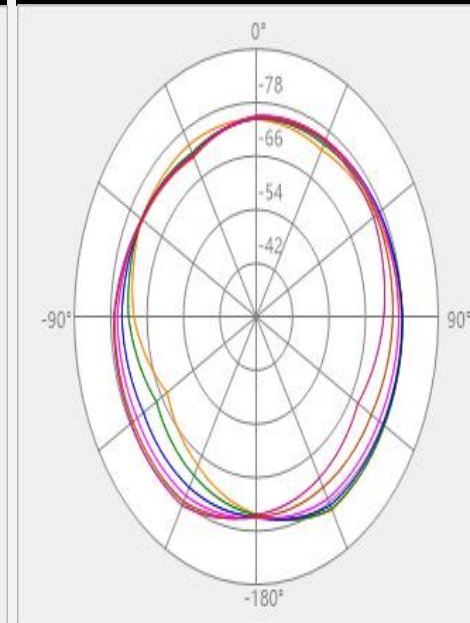
L-TIS



- ALL
- Az: 0°
- Az: 30°
- Az: 60°
- Az: 90°
- Az: 120°
- Az: 150°



- ALL
- Az: 0°
- Az: 30°
- Az: 60°
- Az: 90°
- Az: 120°
- Az: 150°

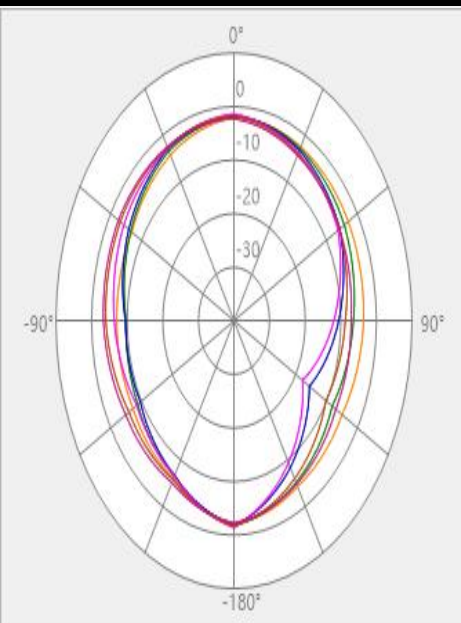
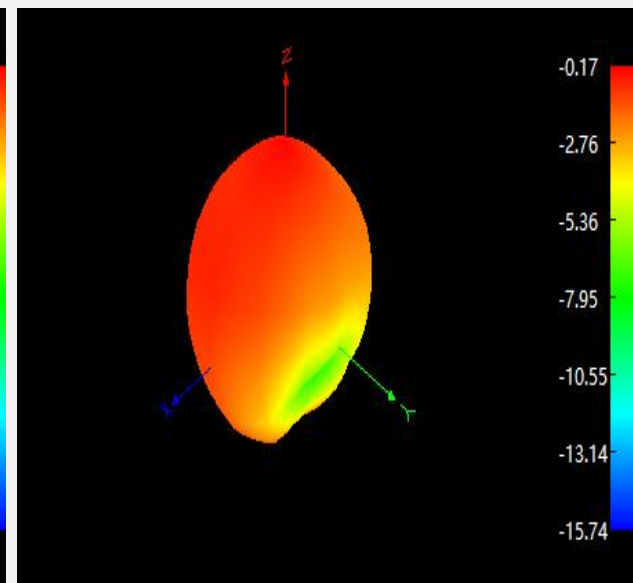
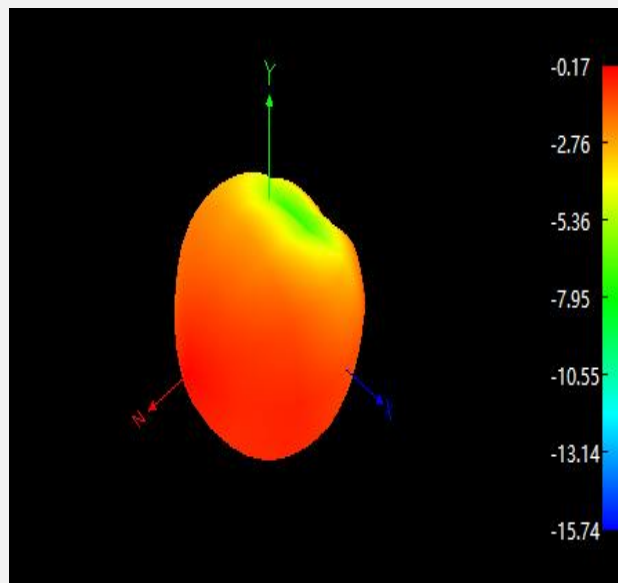
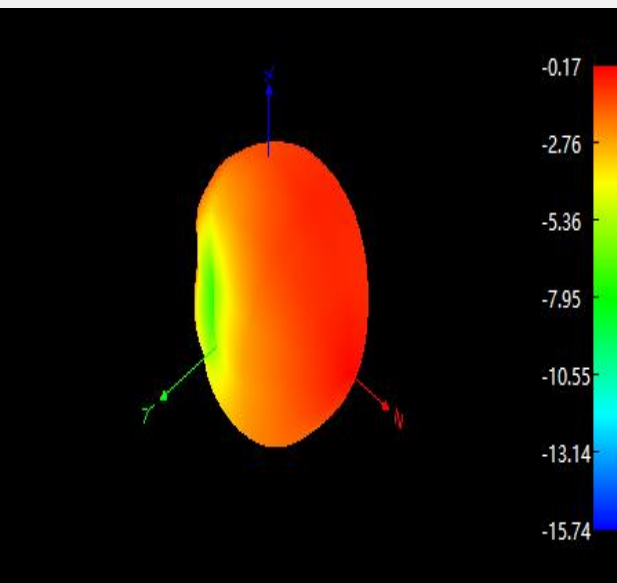


- ALL
- Az: 0°
- Az: 30°
- Az: 60°
- Az: 90°
- Az: 120°
- Az: 150°

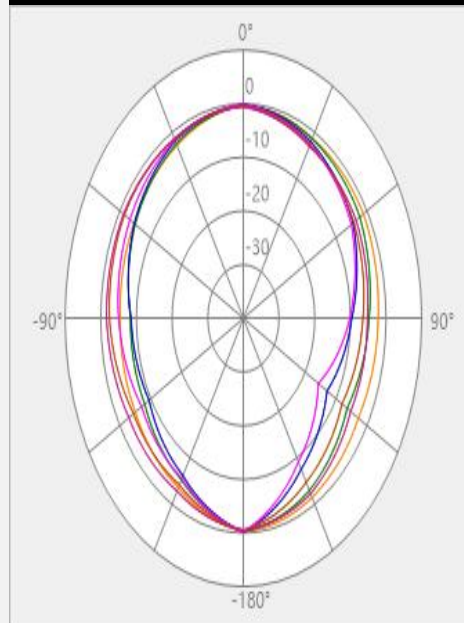
3.Test

Result

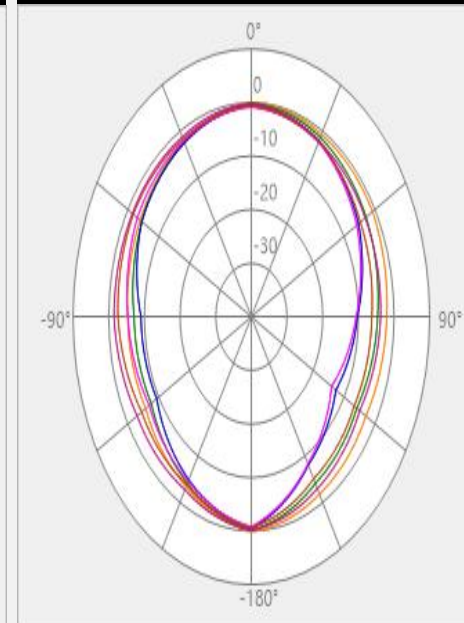
R-TRP



- ALL
- Az: 0°
- Az: 30°
- Az: 60°
- Az: 90°
- Az: 120°
- Az: 150°



- ALL
- Az: 0°
- Az: 30°
- Az: 60°
- Az: 90°
- Az: 120°
- Az: 150°

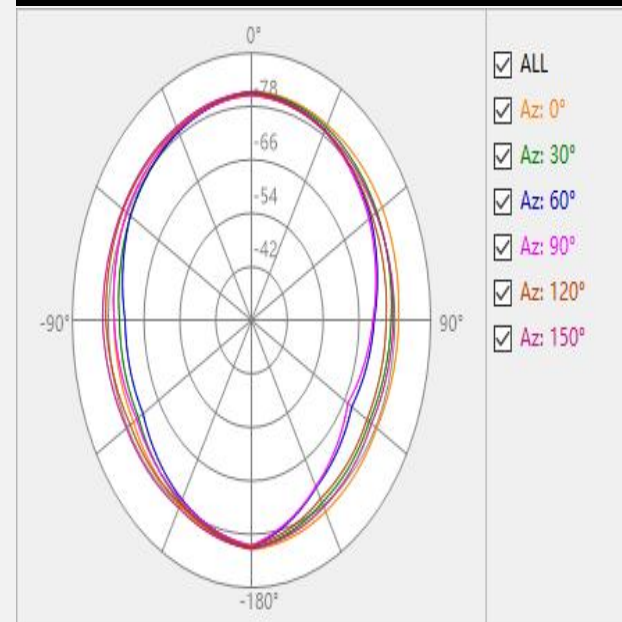
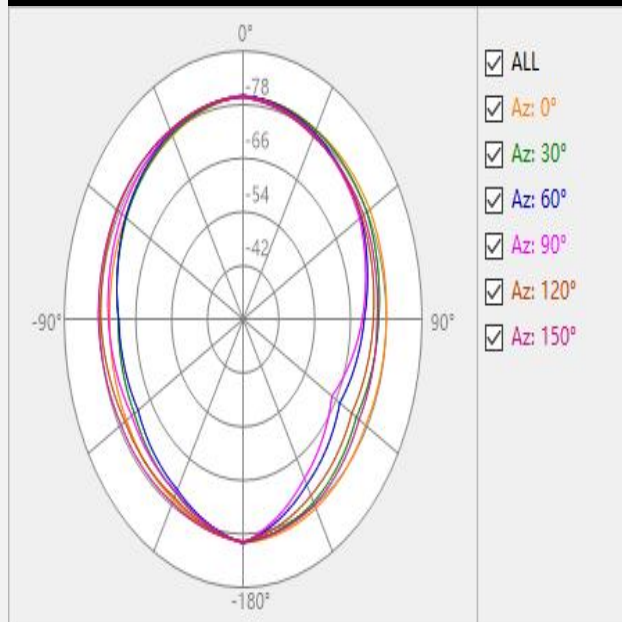
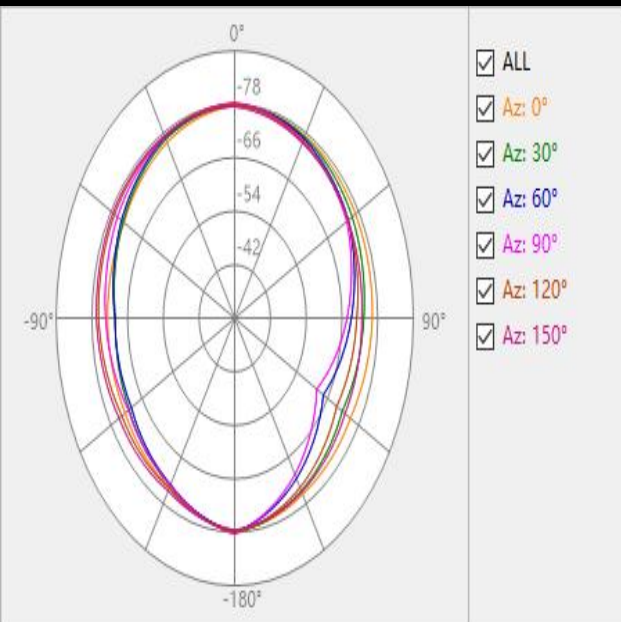
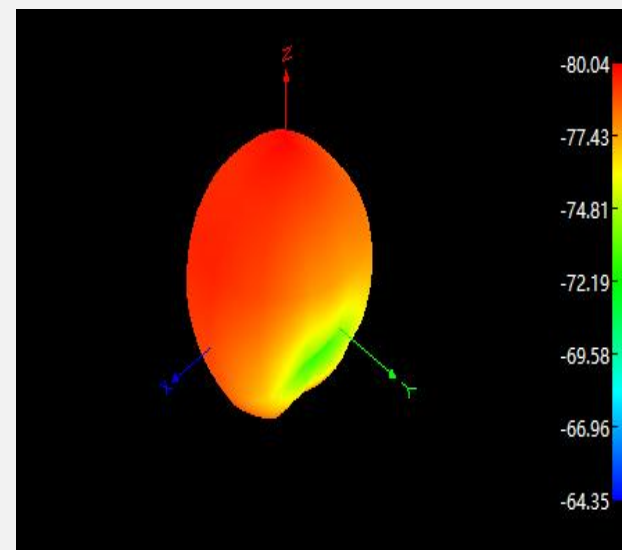
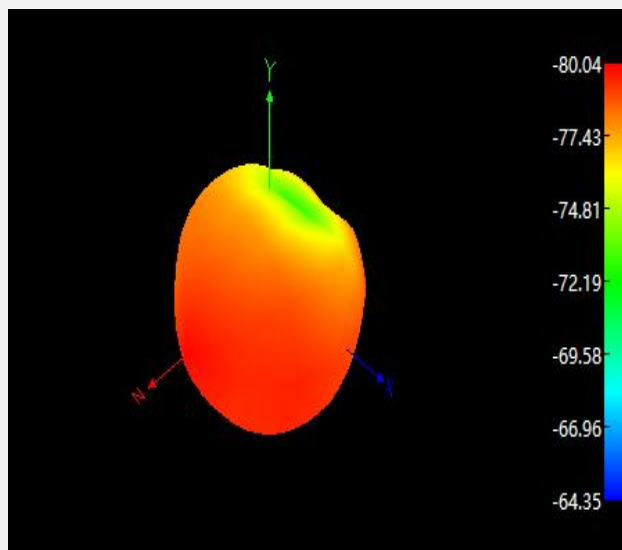
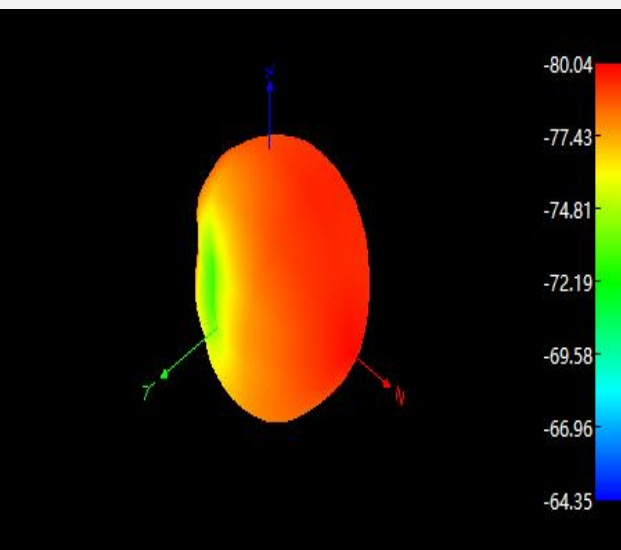


- ALL
- Az: 0°
- Az: 30°
- Az: 60°
- Az: 90°
- Az: 120°
- Az: 150°

3.Test

Result

R-TIS



Thank you!