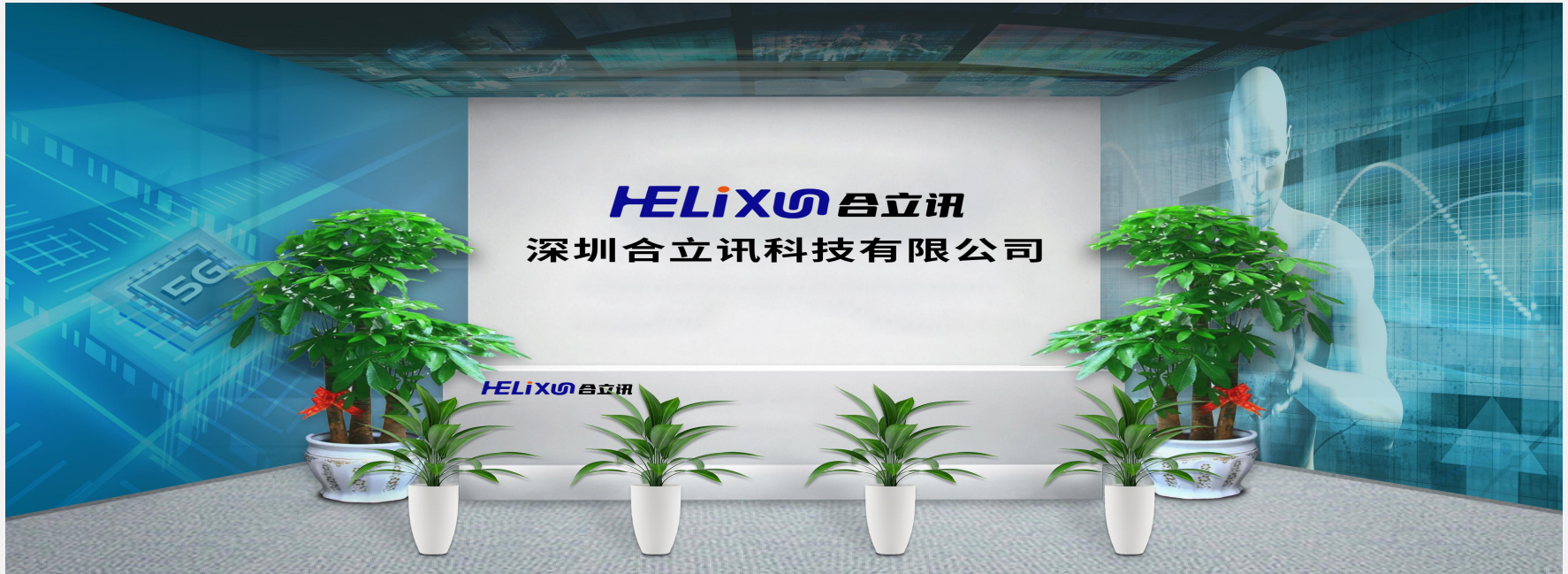


Antenna Test Report



Customer	明日实业
Project	TEX0
Antenna Revision	A0
Prepared by	
Checked by	18814303605
Date:	2026. 4. 24



Shenzhen Helixun Technology Co., Ltd

Purpose

This report is to measure the performance of antenna for **TEXO** The antenna operating frequency at 690MHZ-960MHZ.1710MHZ-2690MHz, All test data are showed as below.

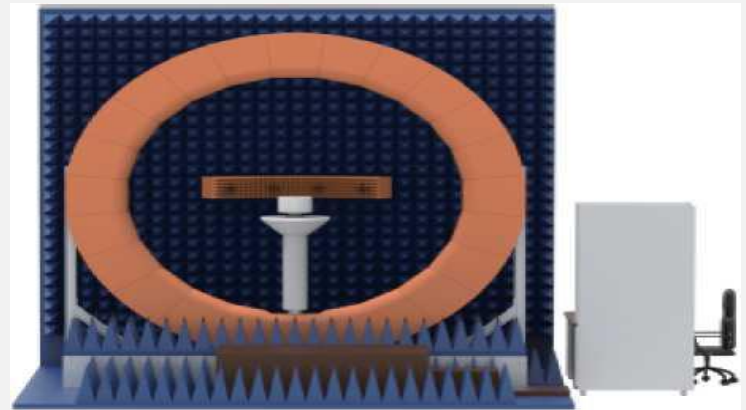
Content

1. Product Overview Dimension
2. Test system
3. Test Result
 - 3.1 S11 Parameter
 - 3.2 Gain & Efficiency
 - 3.3 2D Pattern

Address : Room 1004, Jinhuan Yu Building,
No. 56 Tiezai Road, Xixiang Street,
Bao'an District, Shenzhen City, Guangdong

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



整机



3.Test Result BT

3.1 S11 Parameter-VSWR



Frequency (MHz)	2400	2450	2480	4900	5150	5500	5720	5850
VSWR	1.68	1.13	1.10	1.28	1.61	1.62	1.26	1.27

3. Test Result

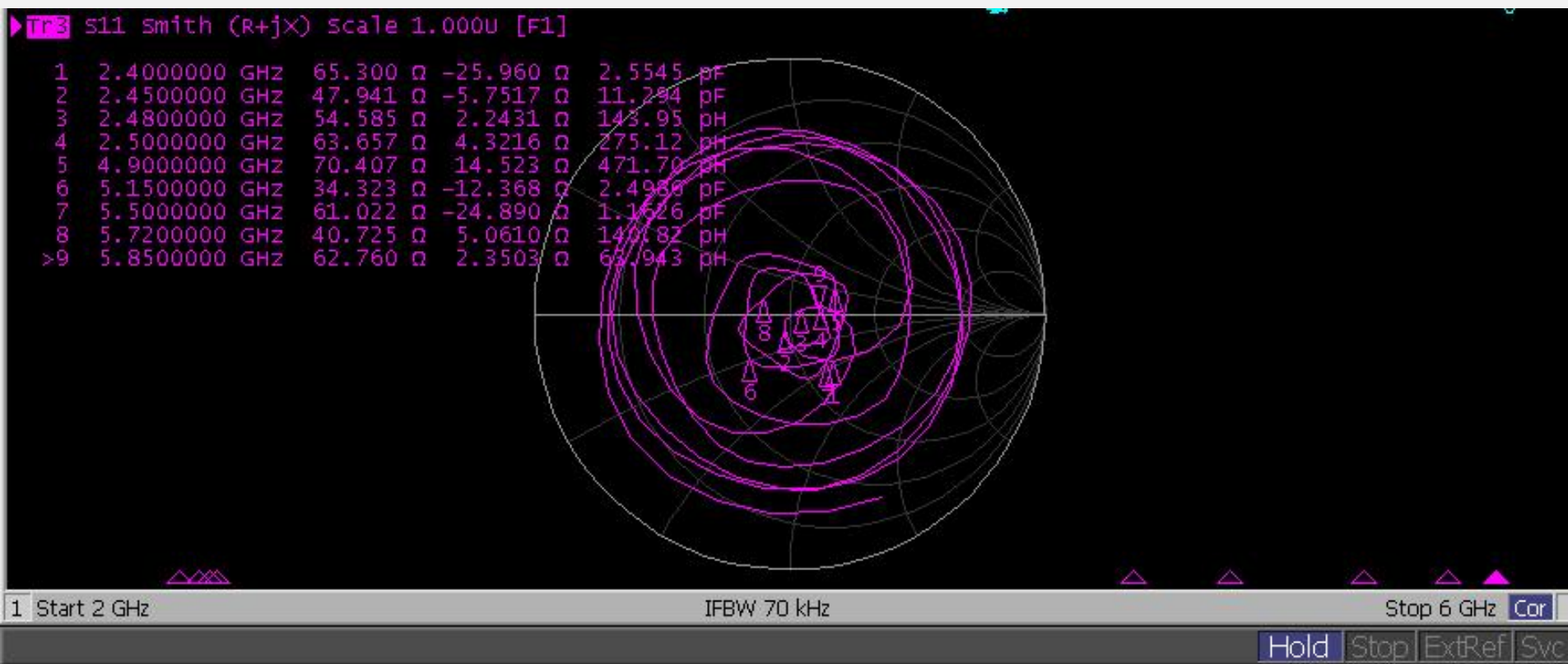
3.1 S11 Parameter-Log Mag



Frequency (MHz)	2400	2450	2480	4900	5150	5500	5720	5850
Log Mag	-11.87	-25.70	-26.23	-13.70	-12.42	-13.40	-18.69	-18.45

3.Test Result

3.1 S11 Parameter-Smith



Frequency (MHz)	2400	2450	2480	4900	5150	5500	5720	5850
Smith(Ω)	65.30	47.94	54.58	70.40	34.32	61.72	40.72	62.76

3.Test Result

3.2 Gain & Efficiency——**ANT**

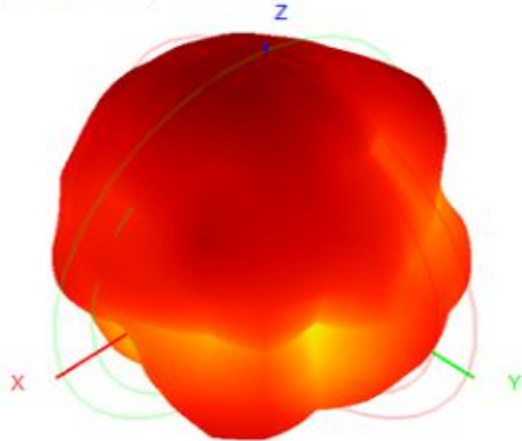
Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	38.93 %	0.59
2410	39.56 %	0.88
2420	39.95 %	1.26
2430	40.37 %	1.45
2440	40.87 %	1.69
2450	38.95 %	1.83
2460	38.20 %	2.02
2470	38.32%	2.24
2480	38.34%	2.40

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
5150	38.82 %	4.27
5200	38.79 %	4.94
5250	40.02 %	5.04
5300	42.73 %	5.19
5350	41.79 %	5.22
5400	39.78 %	5.08
5450	41.75%	5.06
5500	41.88 %	4.80
5550	42.07%	5.12
5600	43.66 %	5.27
5650	42.64 %	5.28
5700	43.70 %	5.43
5750	45.05 %	5.45
5800	46.47 %	5.92
5850	46.38 %	6.15

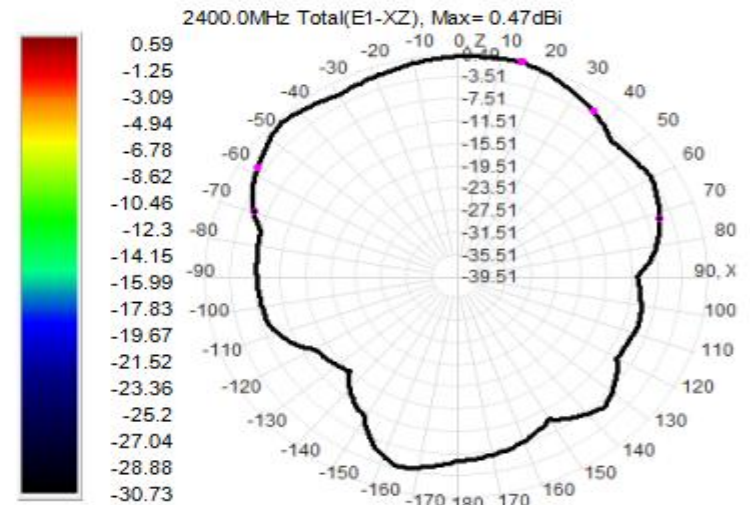
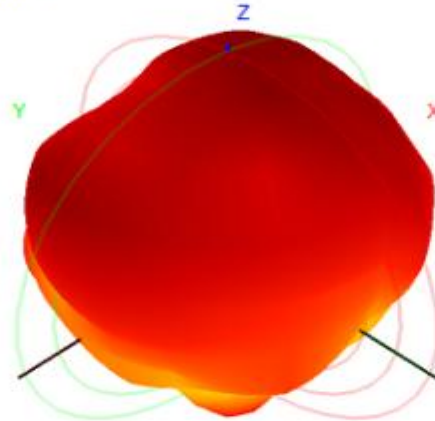
3. Test Result

3.3 2D Pattern——BT ANT

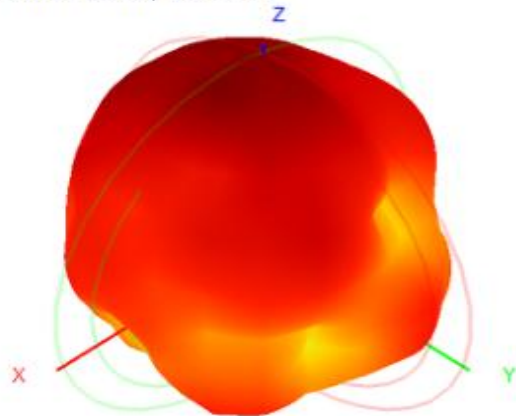
2400.0MHz Total, Eff: 38.9%



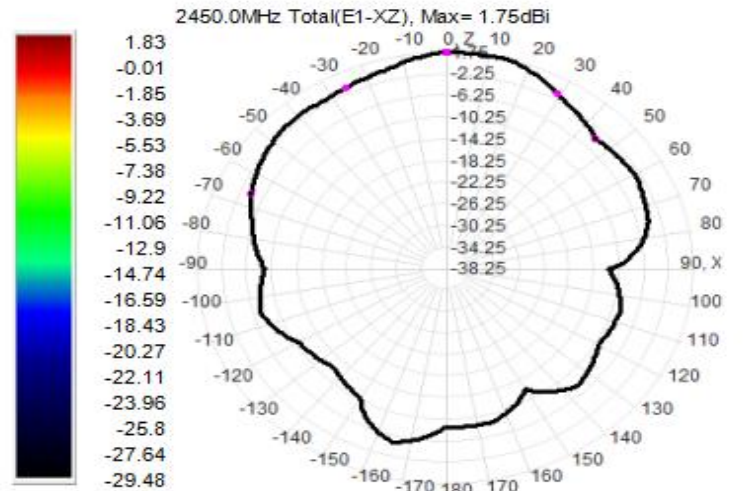
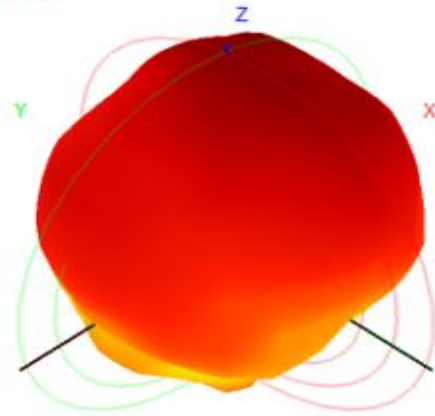
Back View



2450.0MHz Total, Eff: 38.95%



Back View

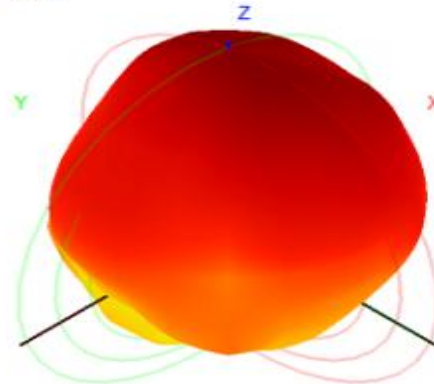
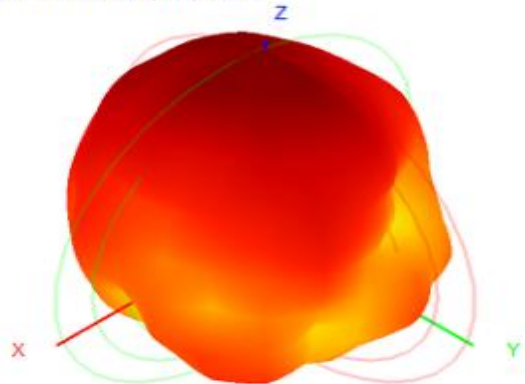


3. Test Result

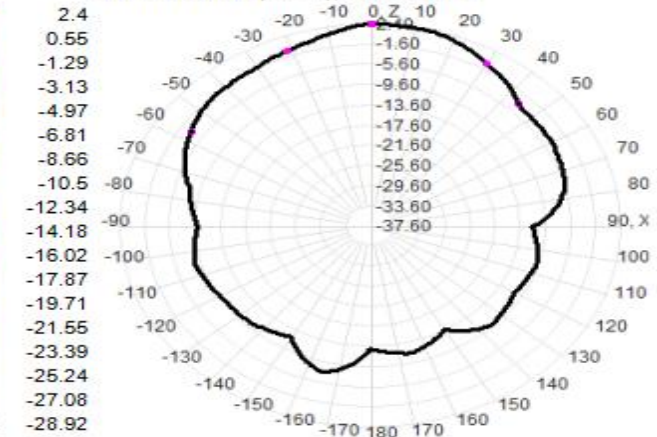
3.3 2D Pattern——BT ANT

2480.0MHz Total, Eff: 38.3%

Back View

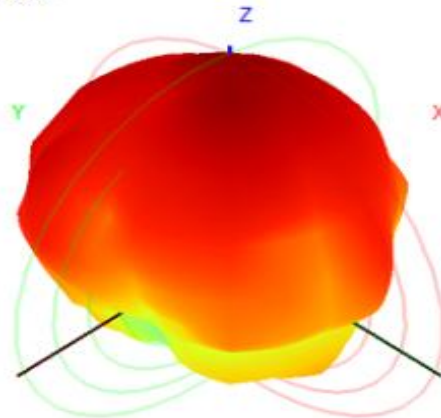
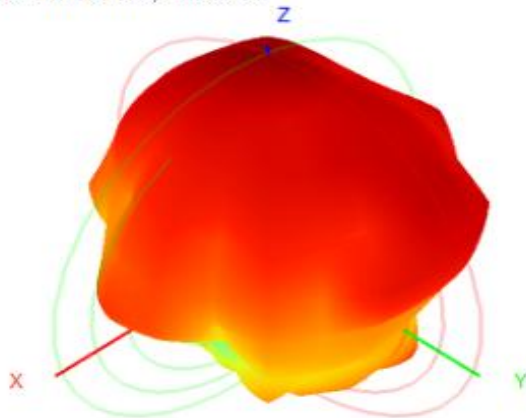


2480.0MHz Total(E1-XZ), Max= 2.40dBi

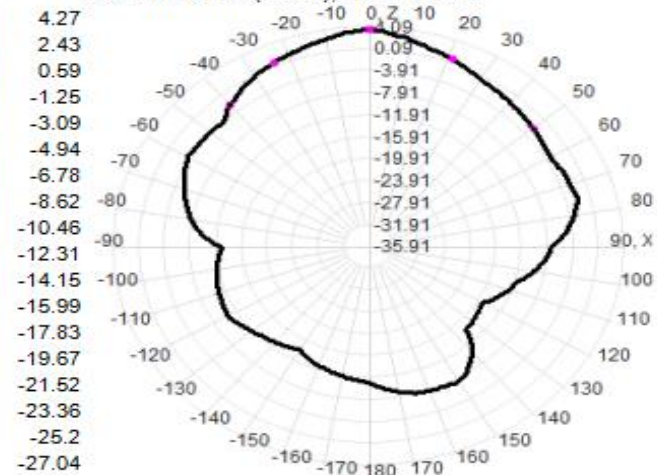


5150.0MHz Total, Eff: 38.8%

Back View



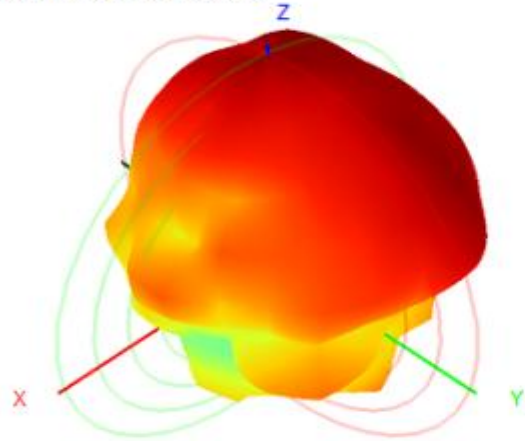
5150.0MHz Total(E1-XZ), Max= 3.59dBi



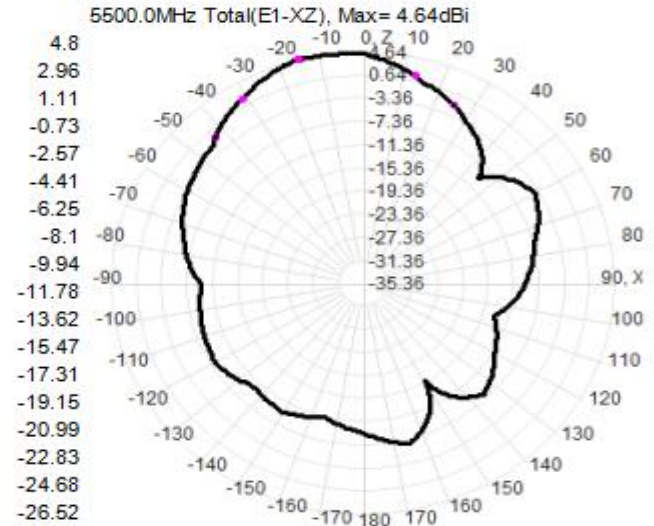
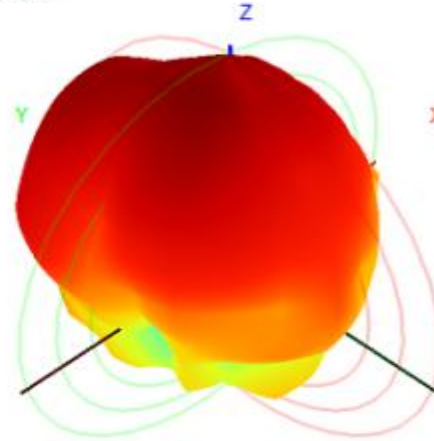
3. Test Result

3.3 2D Pattern—BT ANT

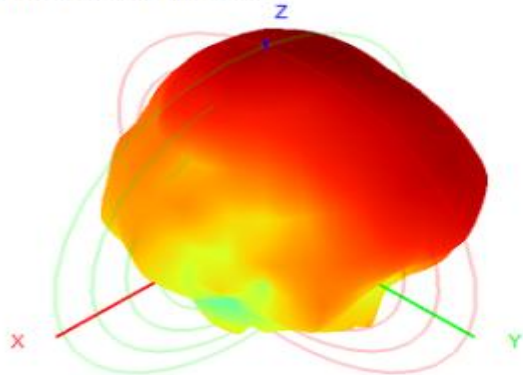
5500.0MHz Total, Eff: 41.9%



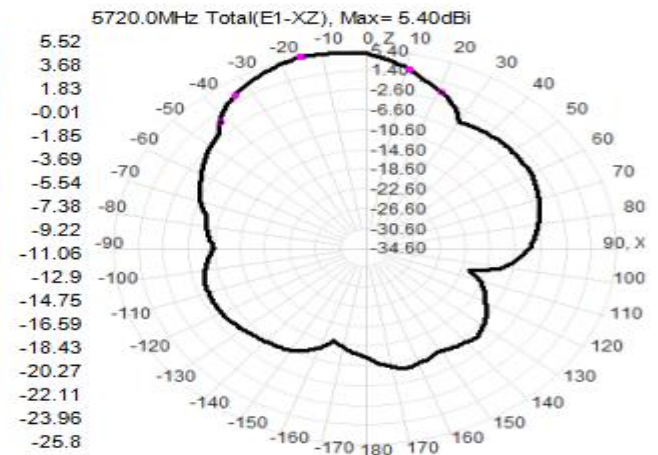
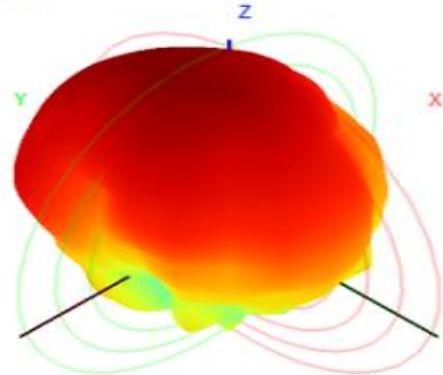
Back View



5720.0MHz Total, Eff: 44.8%



Back View

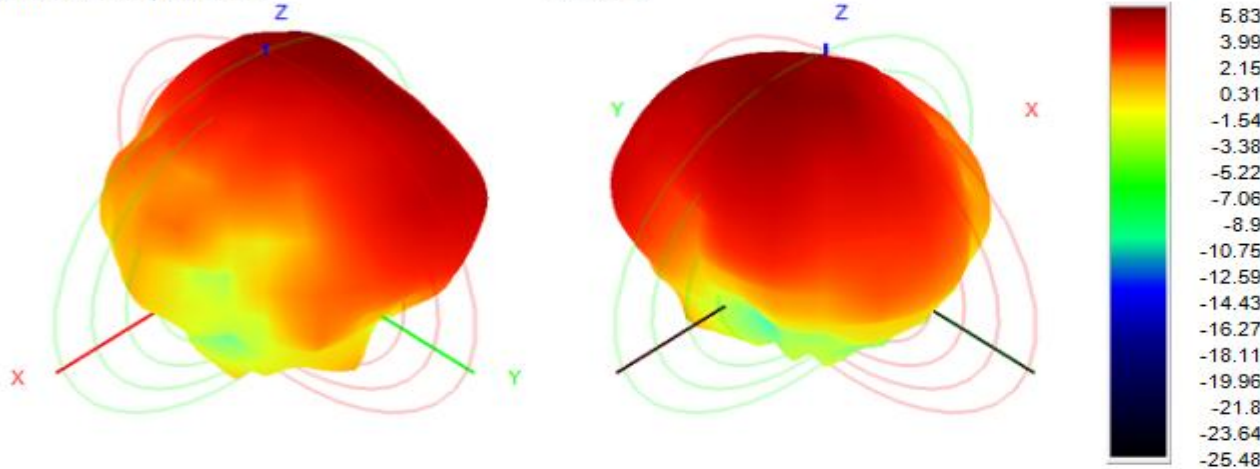


3. Test Result

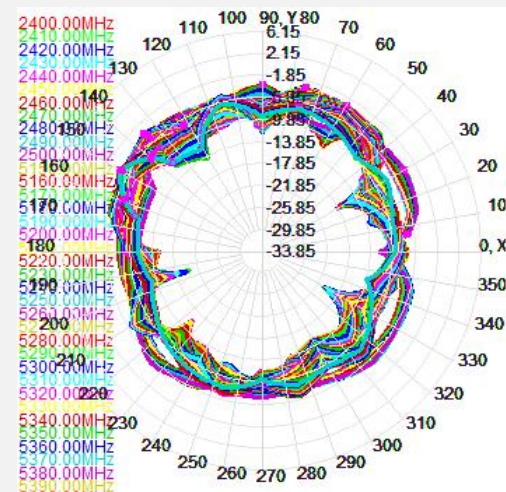
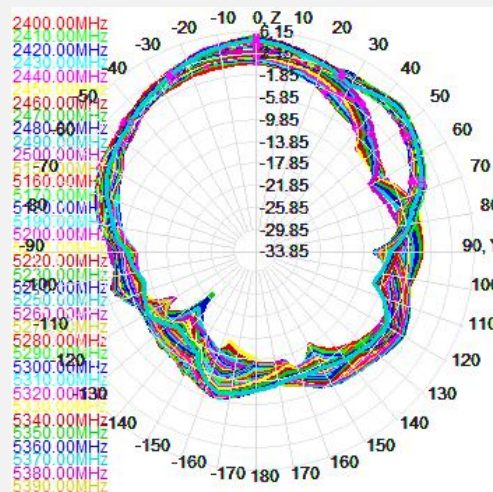
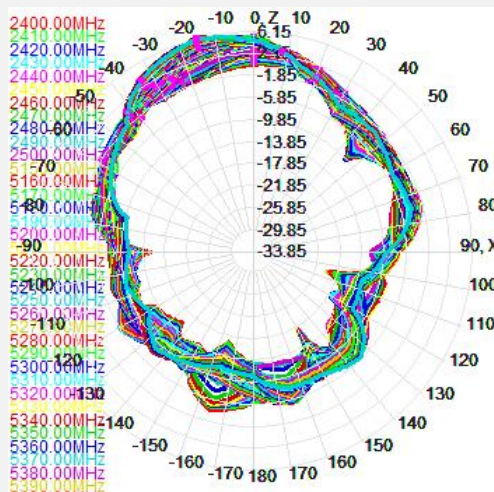
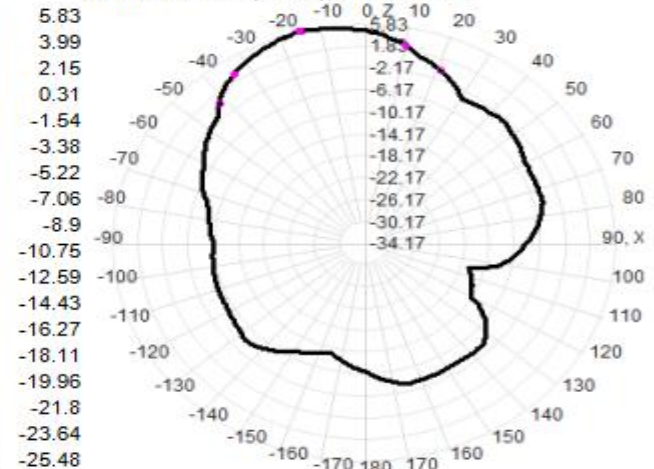
3.3 2D Pattern—BT ANT

5780.0MHz Total, Eff: 47.2%

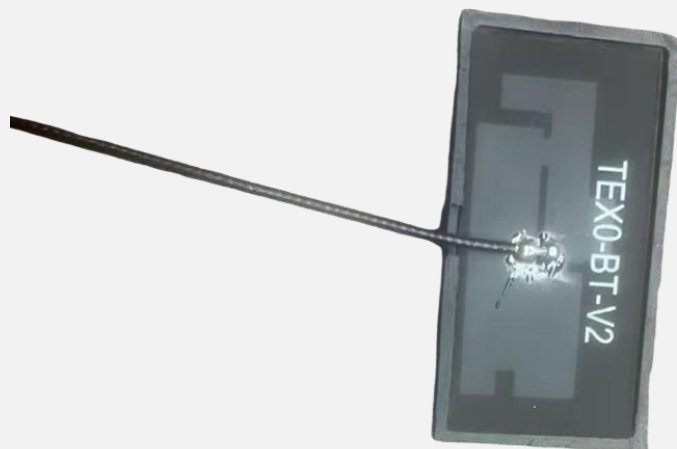
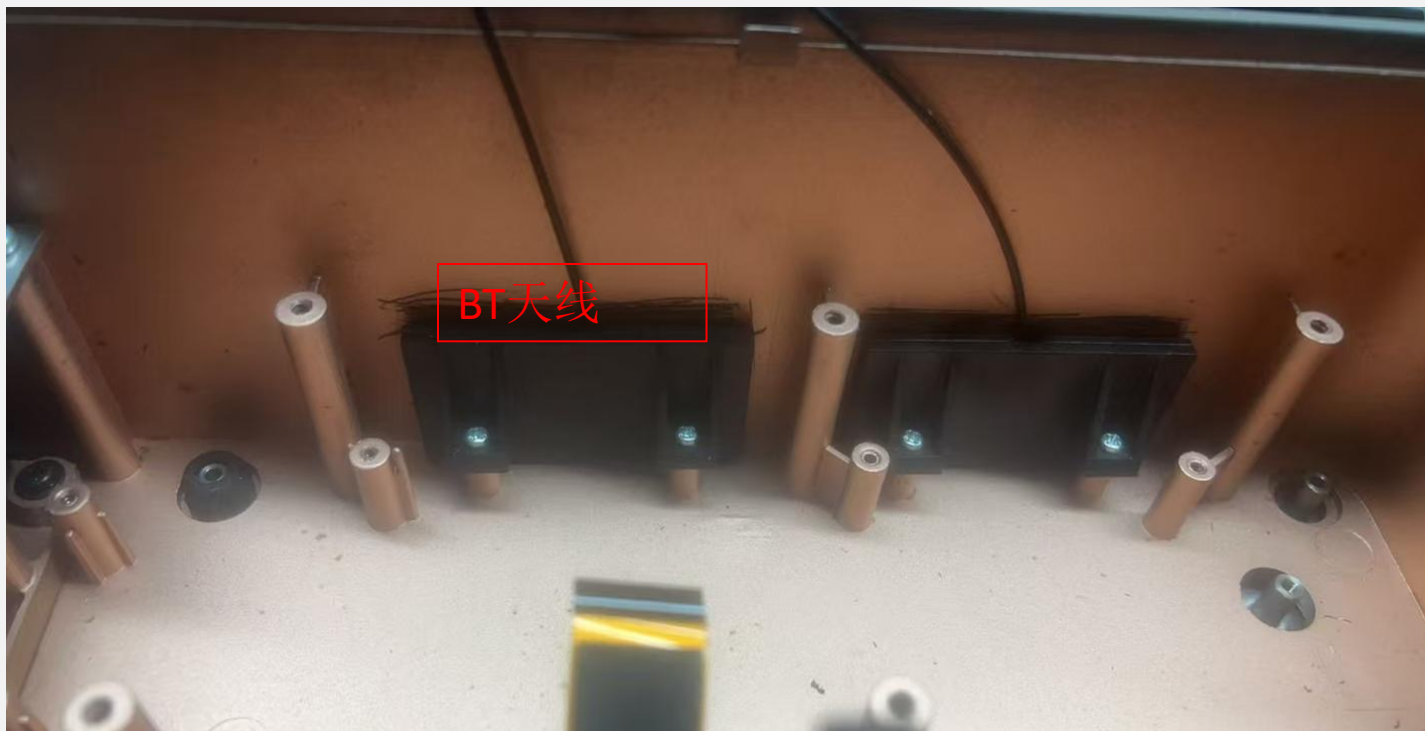
Back View



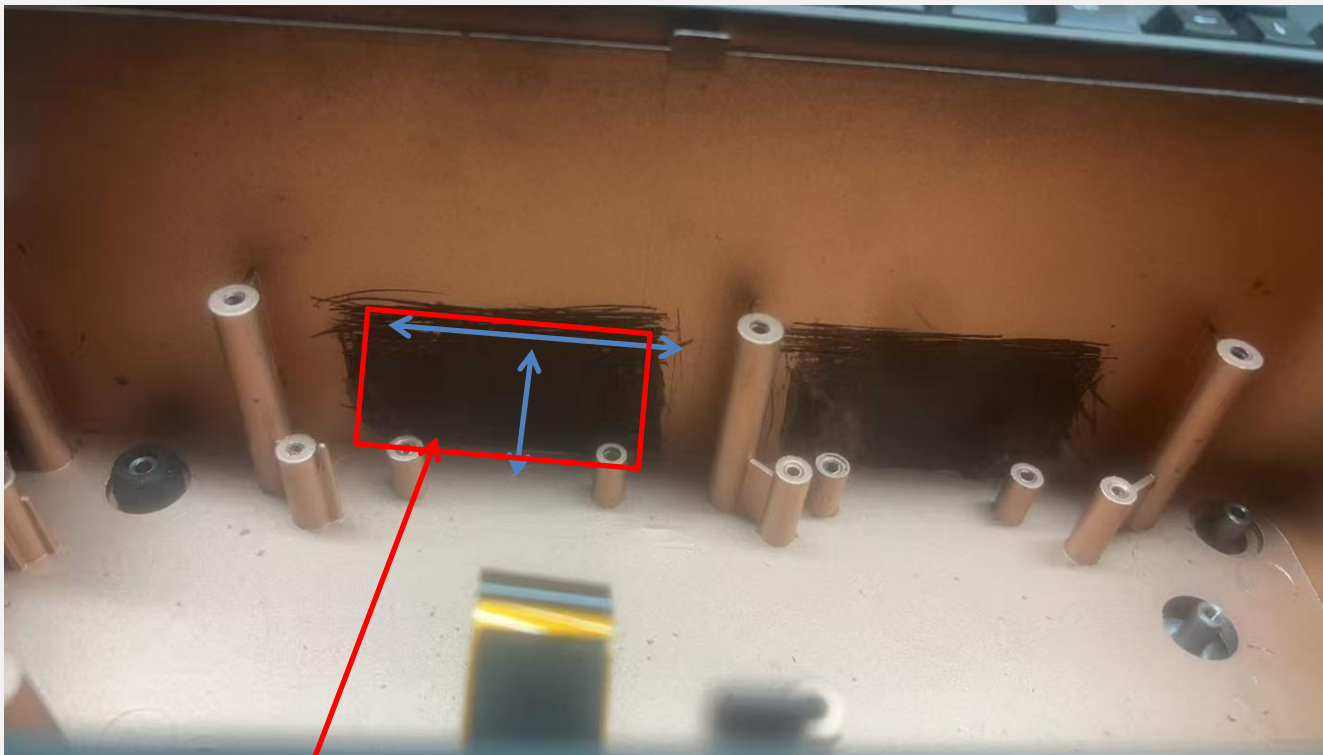
5780.0MHz Total(E1-XZ), Max= 5.83dBi



环境处理



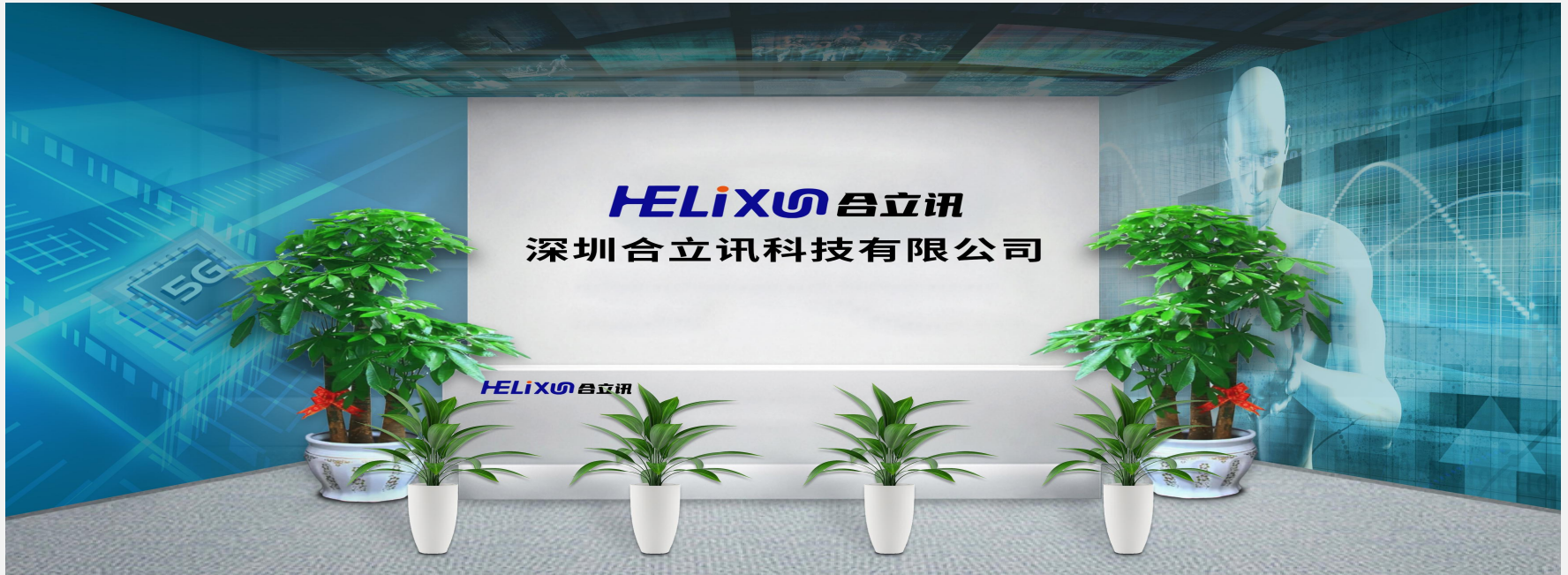
环境处理



BT天线位置，刮开电镀区域
45MM*25MM的空间给天线

Thank you!

Antenna Test Report



Customer	明日实业
Project	TEX0
Antenna Revision	A0
Prepared by	
Checked by	18814303605
Date:	2026. 4. 24

Purpose

This report is to measure the performance of antenna for **TEXO** The antenna operating frequency at 690MHZ-960MHZ.1710MHZ-2690MHz, 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
 - 3.4 OTA
 - 3.5 Environmental treatment

Address : Room 1004, Jinhuan
Building, No. 56 Tiezai Road, Xixiang
Street, Bao'an District, Shenzhen
City, Guangdong

2.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





Shenzhen Helixun Technology Co., Ltd

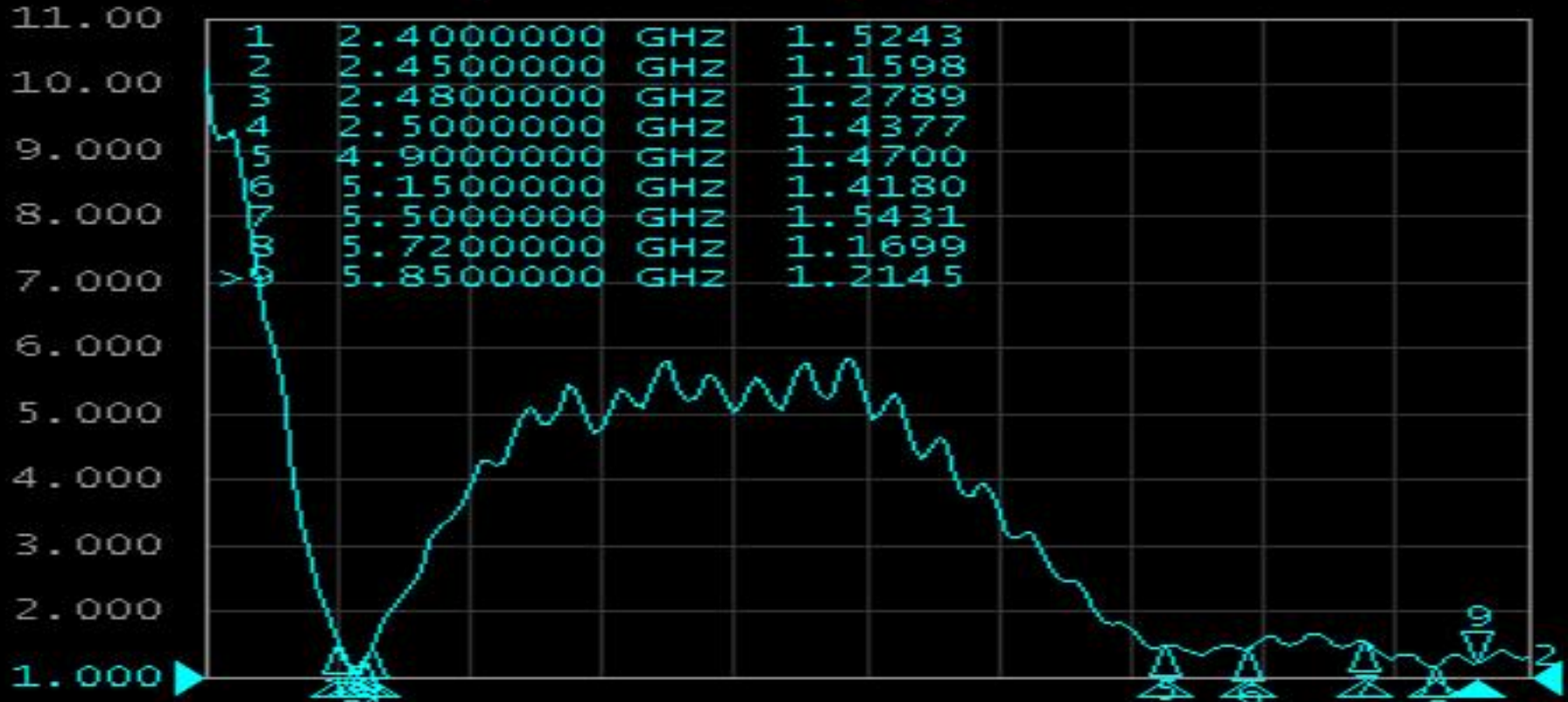


Address : Room 1004, Jinhuan
Building, No. 56 Tiezai Road, Xixiang
Street, Bao'an District, Shenzhen
City, Guangdong

3.Test Result WIFI

3.1 S11 Parameter-VSWR

Tr2 S11 SWR 1.000/ Ref 1.000 [F1]



Frequency (MHz)	2400	2450	2480	4900	5150	5500	5720	5850
VSWR	1.52	1.15	1.27	1.47	1.41	1.54	1.16	1.21

3. Test Result

3.1 S11 Parameter-Log Mag



Frequency (MHz)	2400	2450	2480	4900	5150	5500	5720	5850
Log Mag	-13.65	-22.62	-18.24	-14.41	-15.25	-13.40	-22.12	-20.30

3.Test Result

3.1 S11 Parameter-Smith



Frequency (MHz)	2400	2450	2480	4900	5150	5500	5720	5850
Smith(Ω)	69.15	52.07	48.33	34.26	61.14	36.12	48.80	60.33

3. Test Result

3.2 Gain & Efficiency——**ANT**

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	35.64 %	2.56
2410	36.50 %	2.82
2420	36.11 %	2.93
2430	37.84 %	3.05
2440	38.88 %	3.34
2450	38.48%	3.39
2460	39.04 %	3.40
2470	38.26 %	3.37
2480	38.34 %	3.19

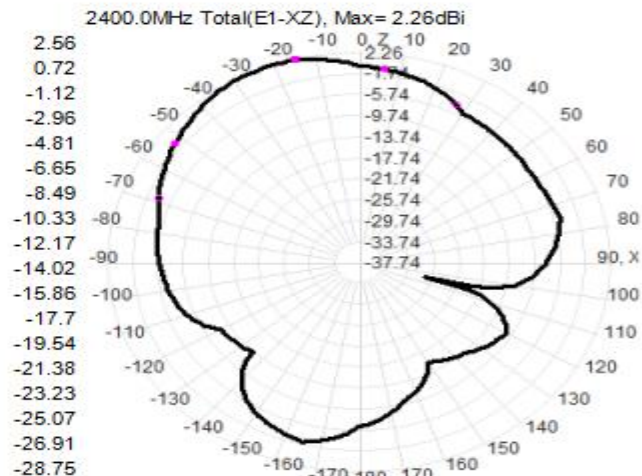
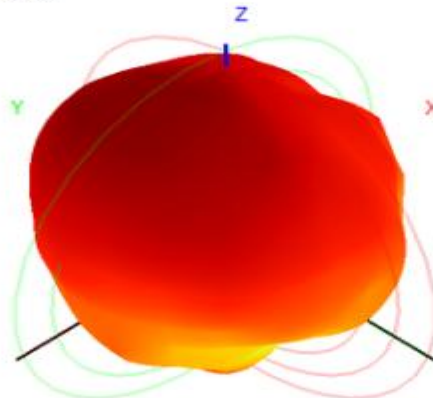
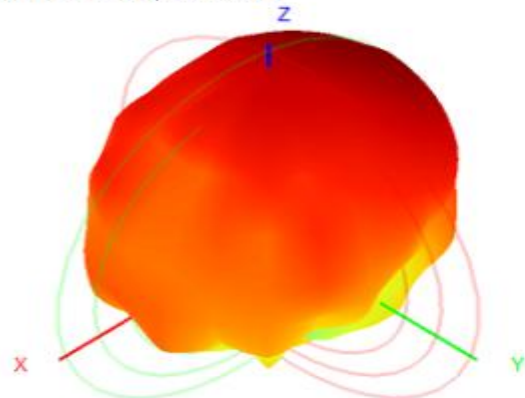
Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
5150	40.44 %	3.35
5200	41.38 %	3.42
5250	42.16 %	3.27
5300	40.59 %	4.14
5350	40.36 %	4.67
5400	39.06 %	4.99
5450	42.99%	4.41
5500	43.34%	5.00
5550	42.60 %	5.09
5600	45.17 %	5.28
5650	46.67 %	5.31
5700	42.43 %	5.21
5750	46.75 %	5.19
5800	44.14 %	5.49
5850	44.85 %	5.29

3. Test Result

3.3 2D Pattern——WIFI ANT

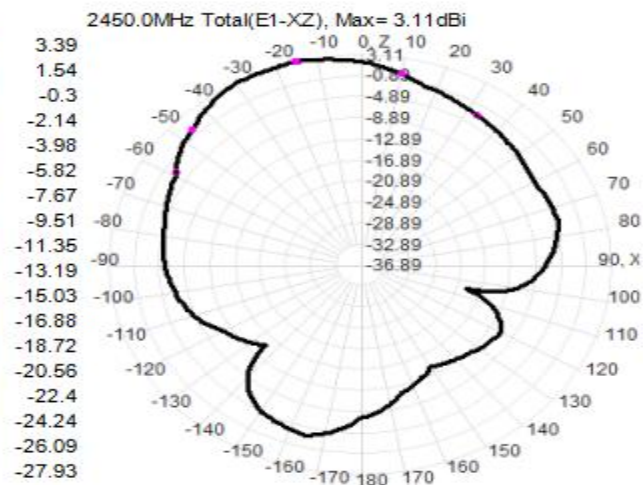
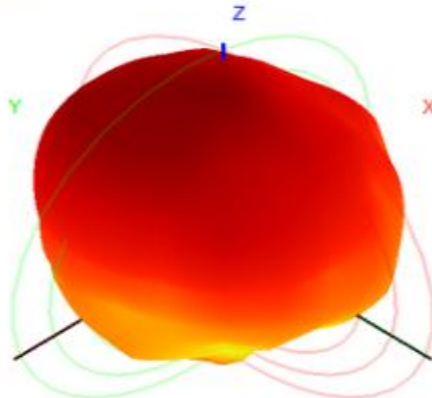
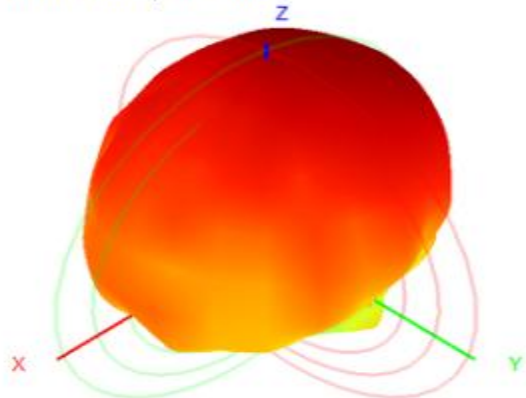
2400.0MHz Total, Eff: 35.64%

Back View



2450.0MHz Total, Eff: 38.5%

Back View

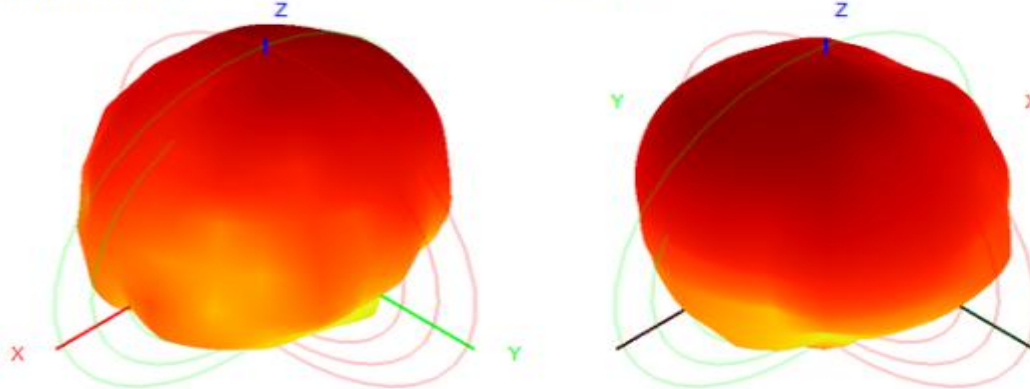


3. Test Result

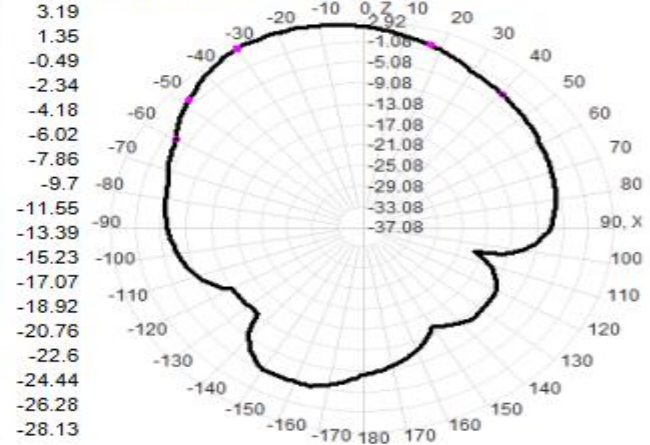
3.3 2D Pattern——WIFI ANT

2480.0MHz Total, Eff: 38.3%

Back View

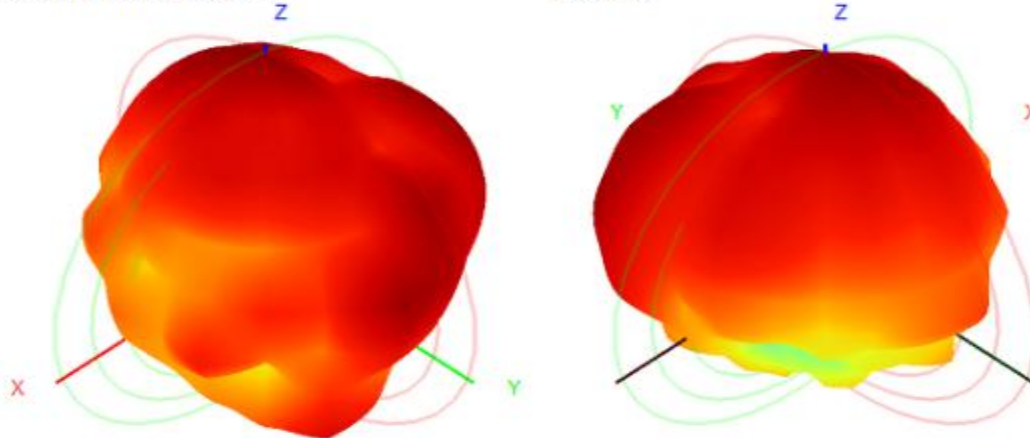


2480.0MHz Total(E1-XZ), Max= 2.92dBi

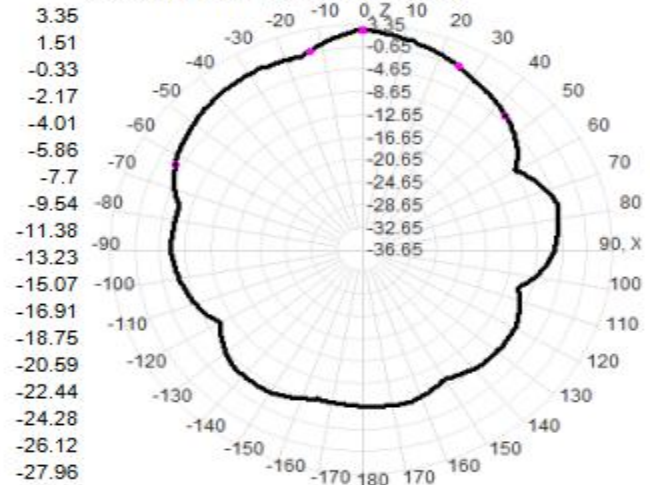


5150.0MHz Total, Eff: 40.4%

Back View



5150.0MHz Total(E1-XZ), Max= 2.37dBi

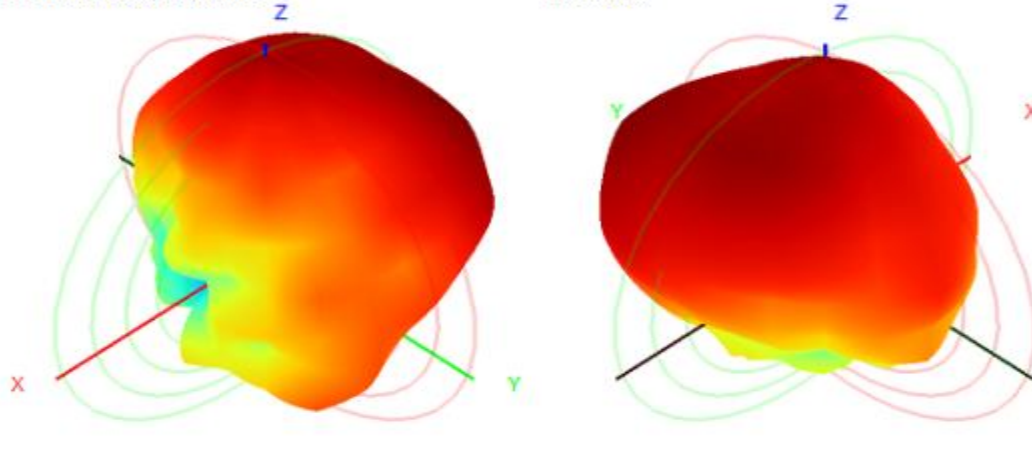


3. Test Result

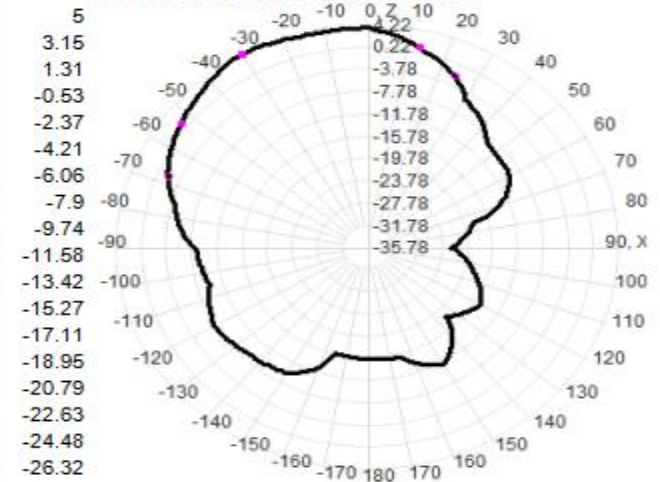
3.3 2D Pattern——WIFI ANT

5500.0MHz Total, Eff: 43.3%

Back View

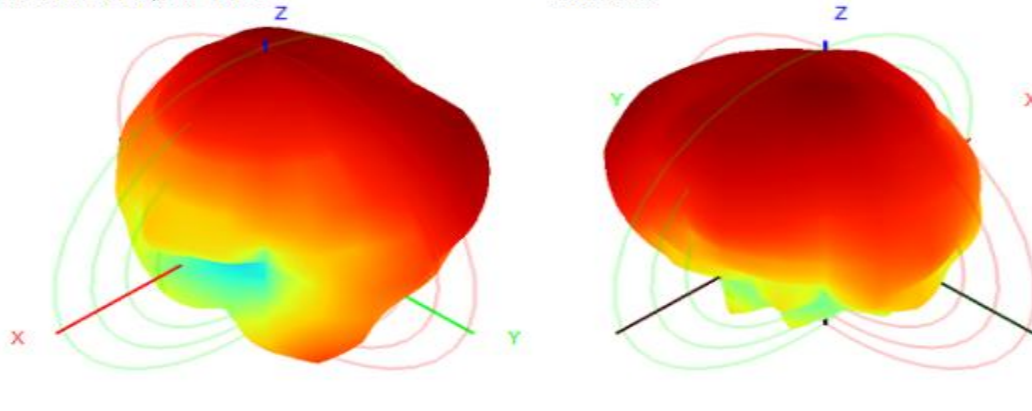


5500.0MHz Total(E1-XZ), Max= 4.22dBi

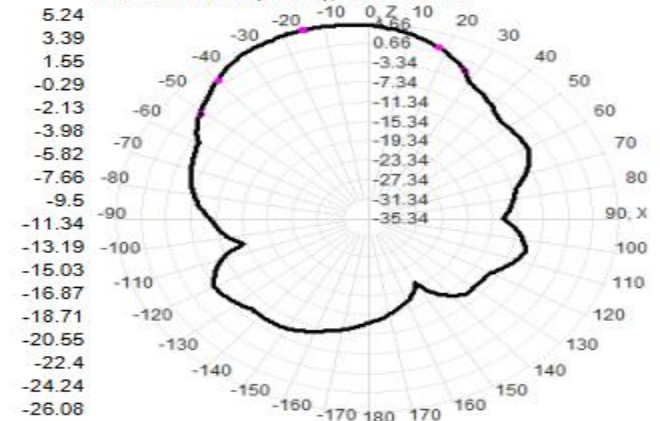


5720.0MHz Total, Eff: 43.6%

Back View



5720.0MHz Total(E1-XZ), Max= 4.66dBi

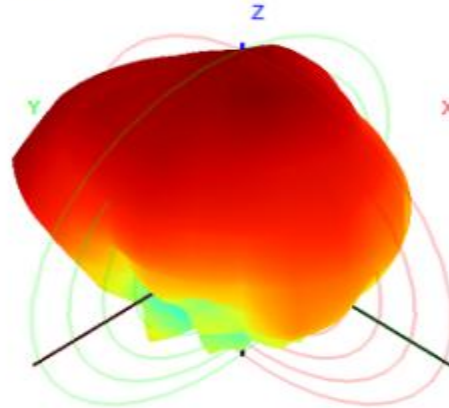
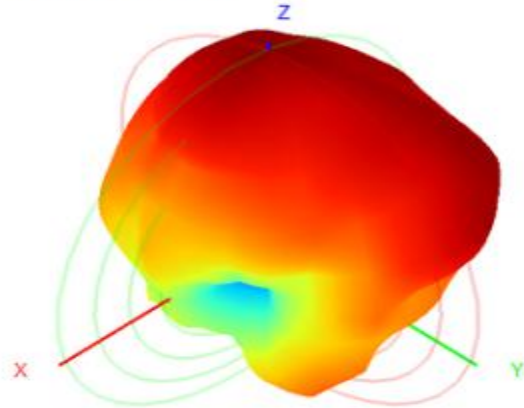


3. Test Result

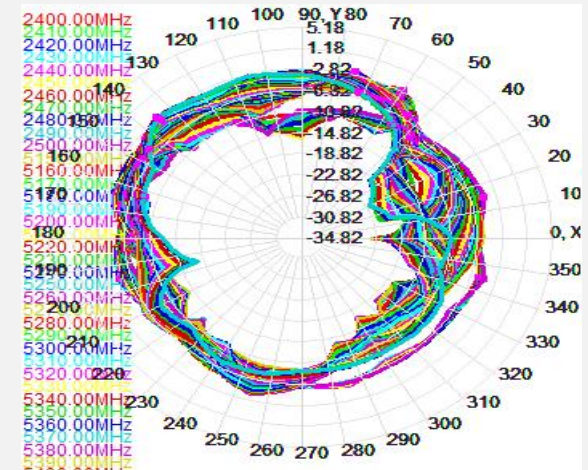
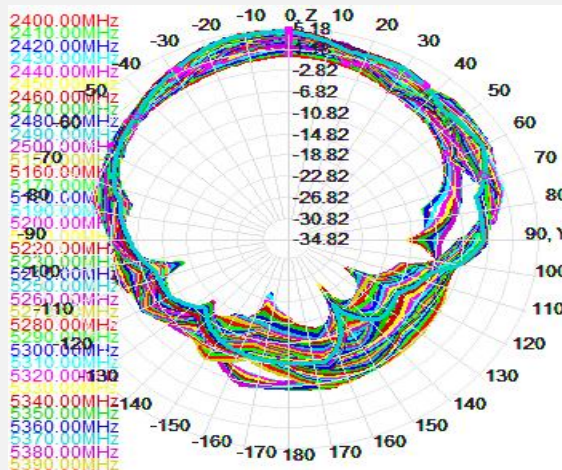
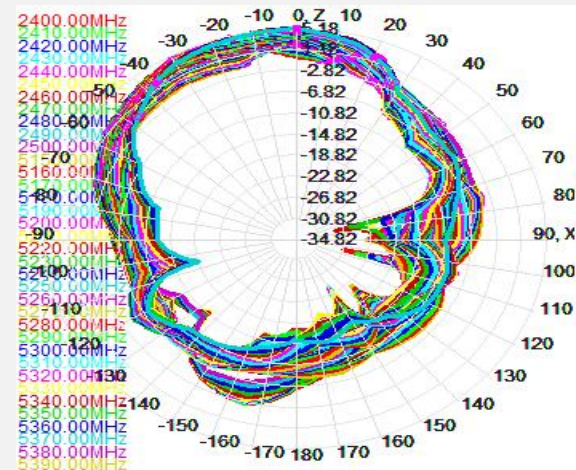
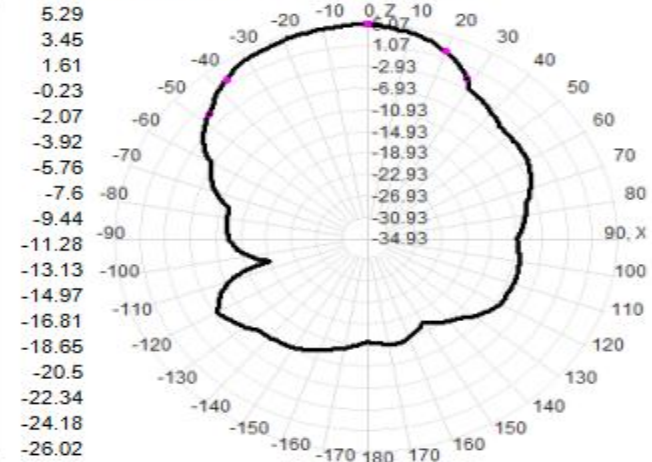
3.3 2D Pattern——WIFI ANT

5850.0MHz Total, Eff: 44.9%

Back View



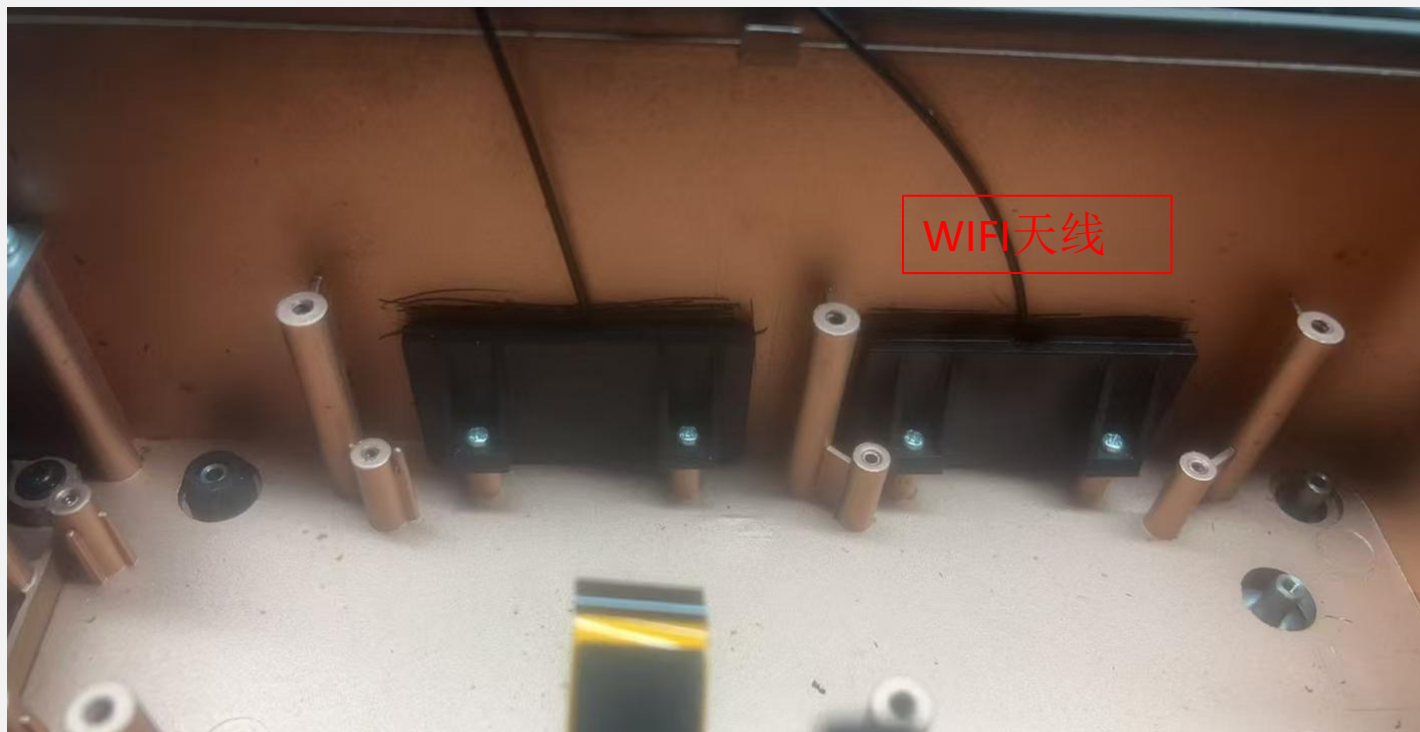
5850.0MHz Total(E1-XZ), Max= 5.07dBi



3.4-OTA Data

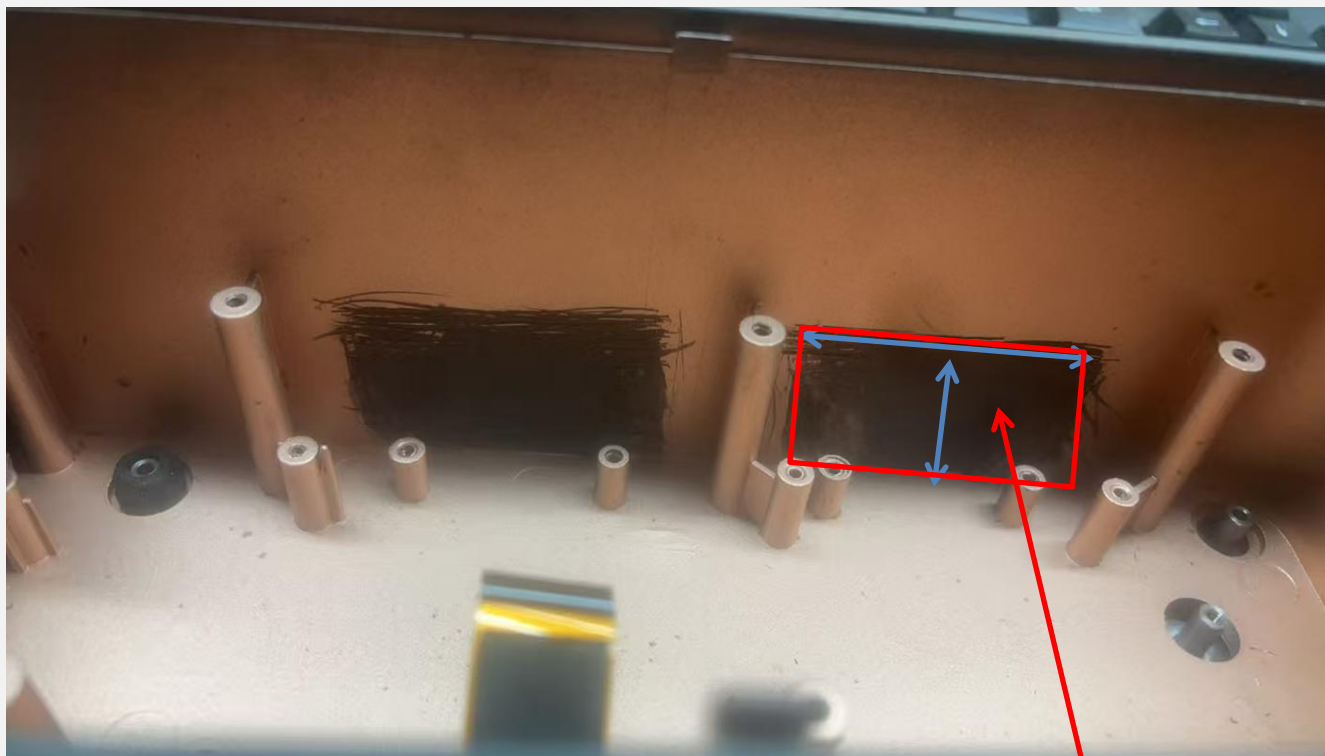
Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
WIFI	802.11 b/11Mbps	1	10.64	-84.03
		7	11.23	-83.23
		13	11.80	-83.40
	802.11 g/54Mbps	1	10.88	-68.85
		7	11.98	-67.42
		13	11.25	-68.03
	802.11 n/65Mbps	1	12.49	-68.54
		7	12.41	-65.99
		13	14.15	-69.40
	802.11 A/65Mbps	36		
		149		
		165		

环境处理



Address : Room 1004, JinhuanYu Building, No.
56 Tiezai Road, Xixiang Street, Bao'an
District, Shenzhen City, Guangdong

环境处理



Address : Room 1004, JinhuanYu Building, No.
56 Tiezai Road, Xixiang Street, Bao'an
District, Shenzhen City, Guangdong

WIFI 天线位置，刮开电镀区域45MM*25MM的空间给天线

Thank you!